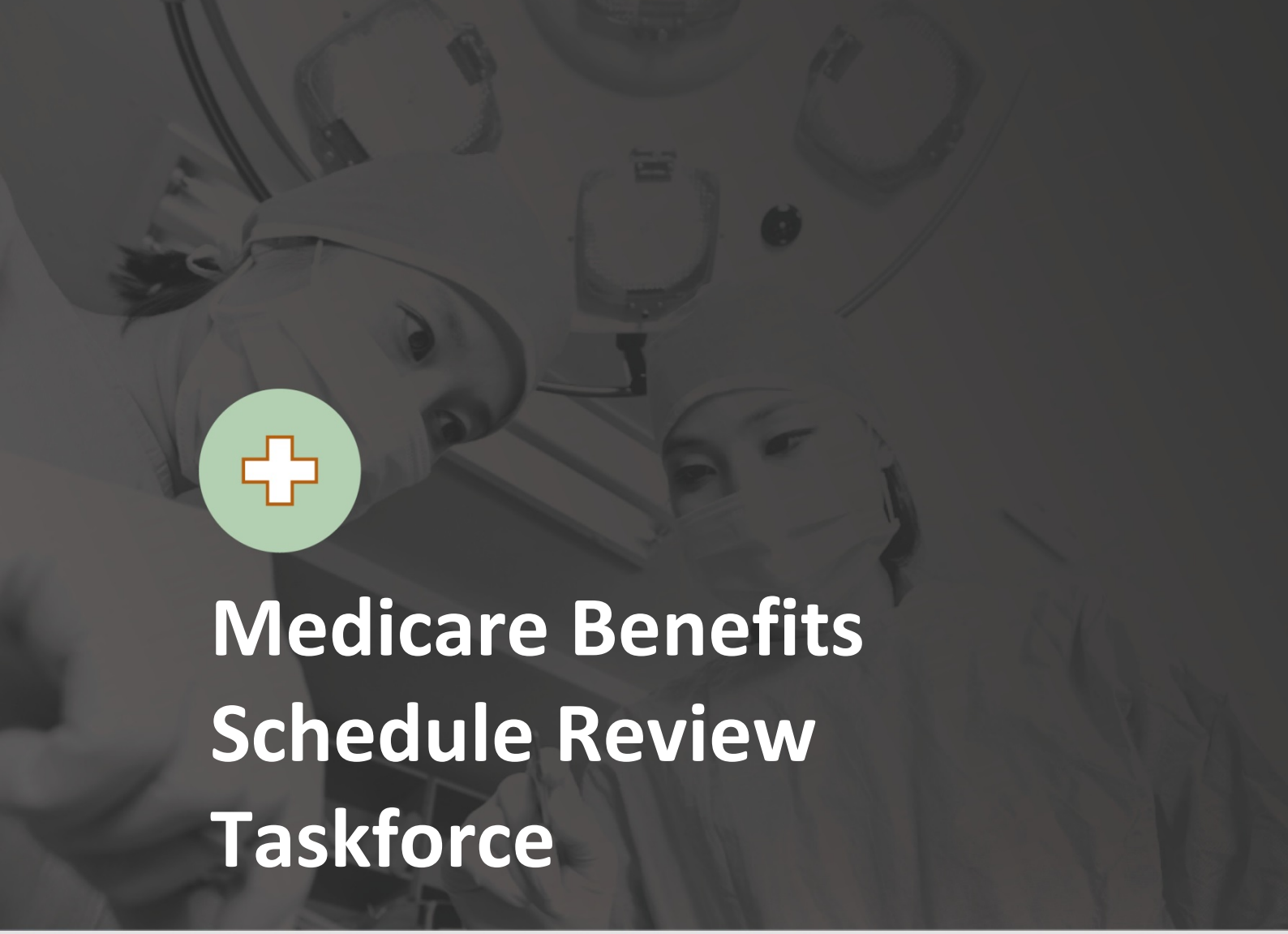

Medicare Benefits Schedule Review Taskforce

Taskforce Final Report on the Diagnostic Imaging Clinical Committee Recommendations

Important note

This Addendum Report contains the final recommendations from the MBS Review Taskforce following consultation with the clinical committee and stakeholders. Updates made to clinical committee recommendations are based on consultation feedback and are outlined in the table below.

The Taskforce welcomes ongoing feedback on this or any MBS Review report via: mbsreviews@health.gov.au.

Original recommendation	Updated recommendation
• Include nuchal translucency (NT) assessment in the item descriptor of 12-16 week ultrasound items (items 55704, 55705, 55710 and 55711), with the addition of an explanatory note identifying NT assessment as an integral part of the examination, and remove current NT assessment items (items 55707, 55708, 55714 and 55716) from the MBS.	• Recommendation not endorsed - deleted
• Create a new MRI modifying item for MRI performed in the presence of MRI-conditional pacemakers and other MRI-conditional electronic implanted devices requiring specific adaptations of protocol or scanner on grounds of patient safety.	• Recommendation not endorsed - deleted
• Restrict radiologists' co-claiming attendance items with specified diagnostic imaging items.	• Original recommendation endorsed with the additional recommendation suggesting that the Department consider increasing the scheduled fee for items 55848 and 55850.
• Split the current item 57350 (CT spiral angiography) into three items with no frequency restriction and remove the word "spiral" from the item descriptor for CT angiography items.	• Split the current item 57350 (CT spiral angiography) into three items with no frequency restriction with the requirement that GPs must consult with a specialist in order to request the service, and remove the word "spiral" from the item descriptor.

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1. Executive summary

The Medicare Benefits Schedule (MBS) Review Taskforce (the Taskforce) is undertaking a program of work that considers how more than 5,700 items on the MBS can be aligned with contemporary clinical evidence and practice and improve health outcomes for patients. The Taskforce will also seek to identify any services that may be unnecessary, outdated or potentially unsafe.

The Taskforce is committed to providing recommendations to the Minister for Health (the Minister) that will allow the MBS to deliver on each of these four key goals:

- Affordable and universal access
- Best practice health services
- Value for the individual patient
- Value for the health system

The Taskforce has endorsed a methodology whereby the necessary clinical review of MBS items is undertaken by clinical committees and working groups.

The Diagnostic Imaging Clinical Committee (the Committee) was established in 2015 to make recommendations to the Taskforce on the review of MBS items in its area of responsibility, based on rapid evidence review and clinical expertise.

This report includes recommendations from the Committee developed from 2016 to the conclusion of its review of MBS items in August 2018. Recommendations relate to the diagnostic imaging of different body areas and systems. This includes the Committee's review of MBS items related to:

- Imaging of the head and neck
- Imaging of the spine and pelvis
- Imaging of the upper and lower limbs
- Imaging of the organs of the chest, abdomen and pelvis
- General and whole body imaging
- Obstetric imaging
- Magnetic resonance imaging (MRI)
- Other (ungrouped) diagnostic imaging services

The Committee's review of additional overarching rules and principles related to diagnostic imaging services provided under the MBS are also included in this paper. These include consideration of:

- Co-claiming of radiologist attendances with diagnostic imaging items
- Capital sensitivity measures (services performed on old equipment)
- Rules and principles related to diagnostic imaging

The recommendations from the clinical committees are released for stakeholder consultation. The clinical committees consider feedback from stakeholders then provide recommendations to the Taskforce in a review report. The Taskforce considers the review reports from clinical committees and stakeholder feedback before making recommendations to the Minister for consideration by Government.

1.1 Key recommendations

After reviewing the items included in this review, the Committee made 38 recommendations related to these items. The recommendations are presented by body system, where applicable. All recommendations are detailed in full, with accompanying rationales, in Section 4.

Imaging of the head and neck

The Committee reviewed items relating to imaging of the head and neck. Items for imaging of the head include plain radiography (x-ray), ultrasound, computed tomography (CT) and MRI. The Committee agreed the majority of current MBS items for imaging of the head and neck remain appropriate in contemporary clinical practice and should remain unchanged. Particular attention was given to CT of the head in children and adults in the context of MRI of the head having been recently introduced to the MBS.

The Committee made four recommendations related to imaging of the head and neck aimed at simplifying the head imaging portion of the MBS and assisting with appropriate requesting of ultrasound of the neck.

Recommendation 1: Consolidate x-ray items for petrous temporal bone (items 57909 and 57923) with mastoid bone (items 57906 and 57920).

Recommendation 2: Consolidate x-ray items for sinuses (items 57903 and 57917) and facial bones (items 57912 and 57926).

Recommendation 3: The Department of Health (the Department) to facilitate primary care research into why the introduction of GP-requested head MRI hasn't resulted in a greater reduction in the requesting of head CT.

Recommendation 4: Add explanatory notes about appropriate indications for neck ultrasound to items 55011, 55013, 55032 and 55033.

Imaging of the spine and pelvis

The Committee reviewed items for imaging of the spine and pelvis. Items for imaging of the spine and pelvis include x-ray, ultrasound, CT and MRI. The Committee agreed the current MBS items for imaging of the spine and pelvis remain appropriate in contemporary practice and should remain unchanged.

The Committee made one recommendation relating to imaging of the spine and pelvis aimed at better understanding decision-making by GPs when requesting CT of the cervical spine.

Recommendation 5: The Department to facilitate primary care research into GP requesting practices for CT of the cervical spine.

Imaging of the upper and lower limbs

The Committee reviewed items for imaging of the upper and lower limbs. Items for imaging of the spine and pelvis include x-ray, ultrasound and CT of the musculoskeletal system and soft tissues. The Committee agreed the majority of current MBS items for imaging of the limbs remain appropriate in contemporary clinical practice and should remain unchanged.

The Committee made two recommendations relating to imaging of the spine and pelvis aimed at generating additional information which can be used to guide future decisions about musculoskeletal imaging services.

Recommendation 6: The Department to facilitate research investigating the increased use of musculoskeletal ultrasound services.

Recommendation 7: Split items 56619 and 56659 (CT scan of extremities without contrast) into two separate items for CT of the upper limb and lower limb, excluding knee.

Imaging of the organs of the chest, abdomen and pelvis

The Committee reviewed items for imaging of the organs of the chest, abdomen and pelvis, in addition to items for ultrasound of the chest and abdominal wall. The Committee agreed

the current MBS items remain appropriate in contemporary clinical practice and should remain unchanged.

The Committee made two recommendations relating to ultrasound of the chest or abdominal wall due to concerns regarding inappropriate use.

Recommendation 8: Amend the item descriptor for items 55061, 55062, 55076 and 55079 (both breast ultrasound) to include the indication of "including post-mastectomy surveillance".

Recommendation 9: Amend the item descriptor for items 55814 and 55815 (non-referred ultrasound of the chest or abdominal wall) to include the words "not to be claimed in association with any other breast ultrasound item within the MBS".

General and whole-body imaging

The Committee reviewed items relating to general and whole body imaging. Items for general and whole body imaging include x-ray, ultrasound, CT and MRI. The Committee agreed the current MBS items for imaging of the spine and pelvis remain appropriate in contemporary practice and should remain unchanged.

The Committee made one recommendation relating to musculoskeletal cross-sectional echography to ensure appropriate use of the items and modernise the MBS.

Recommendation 10: Amend the item descriptor for items 55850 and 55851 (musculoskeletal cross-sectional echography in conjunction with a surgical procedure using interventional techniques, inclusive of a diagnostic musculoskeletal ultrasound service) to state that a complete diagnostic musculoskeletal ultrasound report must be produced for the musculoskeletal ultrasound component of the item, each time the service is provided.

Recommendation 11: Amend the item descriptors for items 55848 and 55849 (musculoskeletal cross-sectional echography in conjunction with a surgical procedure using interventional techniques); and 55850 and 55851 (musculoskeletal cross-sectional echography in conjunction with a surgical procedure using interventional techniques, inclusive of a diagnostic musculoskeletal ultrasound service) so that the term "echography" is replaced with "ultrasound" (for items 55848 and 55849) and "diagnostic ultrasound" (for items 55850 and 55851).

Obstetric imaging

The Committee reviewed items relating obstetric imaging based on advice provided by the Obstetrics Clinical Committee (ObCC). Items reviewed included 49 pregnancy ultrasound items and one pelvic ultrasound item.

The Committee made six recommendations aimed at simplifying this portion of the MBS by removing unnecessary clinical indications and combining items where appropriate. The Committee also made two recommendations for new pregnancy ultrasound services to bring obstetric ultrasound items in line with modern obstetric practice.

Recommendation 12: Remove the list of clinical indications from the item descriptors of <12 weeks and 12-16 weeks pregnancy ultrasound items (items 55700-55705, 55710 and 55711).

Recommendation 13: Remove the list of clinical indications from the item descriptors of >22 weeks pregnancy ultrasound items (items 55718, 55722, 55723 and 55726) and allow access to these items to rely on clinical judgement.

Recommendation 14: Prohibit claiming of items 55065, 55067, 55068 and 55069 (pelvis ultrasound) for solely pregnancy-related services.

Recommendation 15: Create a new item for 12-16 week morphology ultrasound for multiple gestation pregnancies.

Recommendation 16: Create a new item for cervical length assessment for threatened preterm labour.

MRI

The Committee reviewed items related to MRI of different body areas and MRI modifying items. The Committee agreed the current items for MRI remain appropriate in contemporary practice and should remain unchanged, noting that many of the items reviewed have only recently been added to the MBS.

The Committee made eight recommendations relating to MRI with seven of these being for new MRI services the Committee agreed should be added to the MBS. These changes are aimed at increasing the clinical indications for which MRI can be accessed to improve patient access to MRI in cases where it has been shown to be effective in changing management.

Recommendation 17: Create a new item with a higher fee than the current item for MRI contrast agents (item 63491) specific for macrocyclic gadolinium contrast agents.

Recommendation 18: Create a new item for MRI of the pelvis for the investigation of sub-fertility.

Recommendation 19: Create a new item for MRI for the evaluation of cervical cancer for initial staging or re-staging.

Recommendation 20: Create a new item for MRI for the evaluation of rectal cancer for initial staging or re-staging.

Recommendation 21: Create a new item for whole-body MRI for children with disseminated malignancy, suspected non-accidental injury and chronic recurrent osteomyelitis.

Recommendation 22: Create a new item for MRI of the liver for the evaluation of hepatic metastases for initial staging or restaging prior to treatment using interventional techniques.

Recommendation 23: Amend the time period restriction for MRI for the evaluation of Poly Implant Prosthese (PIP) breast implants to 1 service per 24-month period.

Co-claiming of radiologist attendances with diagnostic imaging

The Committee considered the combined claiming (co-claiming) of specialist attendance items by radiologists at the same time as diagnostic imaging services.

The Committee made a recommendation to restrict the co-claiming of attendance items with specific diagnostic imaging services, including all musculoskeletal ultrasound items. A subsequent recommendation was made to ensure attendance items cannot be claimed when joint injections are being performed. A final recommendation provided a definition of appropriate claiming of attendance items by radiologists. These recommendations are aimed at ensuring professional attendance items are only claimed by radiologists where it has been established as being appropriate to do so.

Recommendation 24: Restrict radiologists' co-claiming attendance items with specified diagnostic imaging items.

Recommendation 25: Prohibit the use of ultrasound items 55026 and 55054 for joint injections.

Recommendation 26: Define appropriate claiming of attendance items by radiologists.

Capital sensitivity measures (services performed on old equipment)

The Committee considered the appropriateness of current capital sensitivity measures which allow rebates to be paid at a lower rate (under NK items) for imaging performed on older equipment. The Committee agreed that the low service volumes for NK items indicate the capital sensitivity measures are serving their intended purpose of giving an incentive to providers to upgrade their equipment in order to claim the full rebate. The Committee also considered the appropriateness of current remote area exemptions that allow providers

located in remote areas to claim K items for imaging performed on equipment that has exceeded its effective life age.

The Committee made two recommendations regarding capital sensitivity measures and remote area exemptions aimed at further encouraging providers to upgrade their equipment.

Recommendation 27: Remove NK items and availability of MBS rebates for services on older equipment.

Recommendation 28: Remove remote area exemptions that currently allow the claiming of K items, with a transition period subject to meeting certain conditions.

Multiple services rules and item level restrictions

The Committee considered the appropriateness of current multiple services rules (where discounts are applied for diagnostic imaging services provided on the same day) and item level restrictions (where the co-claiming of certain diagnostic imaging items with certain others on the same day is prohibited).

The Committee recommended that the current multiple services rules should be simplified and streamlined and specific item level restrictions should be removed. These changes are aimed at ensuring that more than one test can be performed on the same day, if clinically necessary.

Recommendation 29: That the multiple services rules for diagnostic imaging services be simplified and streamlined to avoid disadvantage to patients.

Recommendation 30: Amend the item descriptors for items 55065, 55067, 55068 and 55069 (ultrasound of the pelvis) to remove co-claiming restrictions with items 55014, 55016, 55036 and 55037 (ultrasound of the abdomen).

Recommendation 31: Amend the item descriptors for general ultrasound (not including interventional items), obstetric and gynaecological and musculoskeletal ultrasound to remove co-claiming restrictions with cardiac or vascular ultrasound (with the exception of lower leg ultrasound).

Recommendation 32: Amend the item descriptors for interventional CT (items 57341 and 57345) and interventional fluoroscopy (items 60506, 60507, 60509, 60510, 61109 and 61110) to change the restriction with a diagnostic imaging service of any type to only services in their own subgroups, with the exception of diagnostic CT and interventional CT, for which claiming on the same day should be permitted.

Recommendation 33: Create separate items for unilateral and bilateral musculoskeletal ultrasound items with an appropriate fee for each.

Other recommendations

The Committee considered miscellaneous issues for diagnostic imaging services it regarded as requiring amendment.

The Committee made three recommendations regarding ungrouped items.

Recommendation 34: Create a new item for dual energy x-ray absorptiometry (DEXA) for patients with breast cancer being treated with aromatase inhibitor therapy, to be referred to the Medical Services Advisory Committee (MSAC) for consideration.

Recommendation 35: Split the current item 57350 (CT spiral angiography) into three items with no frequency restriction and remove the word "spiral" from the item descriptor for CT angiography items.

Recommendation 36: Remove the word "lifetime" from the Diagnostic Imaging Services Table (DIST) with regards to time period restrictions on imaging services for cancer patients.

Recommendation 37: Consideration be given to the issue of high out-of-pocket costs associated with diagnostic imaging, especially in the context of a cancer diagnosis.

Recommendation 38: The Department consider the development of clinical decision support tools for the requesting of diagnostic imaging (including CT of the cervical spine, CT of the head, musculoskeletal ultrasound).

1.2 Consumer impact

All recommendations have been summarised for consumers in Appendix A – Summary for consumers. The summary describes the medical service, the recommendations of the clinical experts and the rationale behind the recommendations. A full consumer impact statement is available in Section 5.

The Committee believes it is important to find out from consumers whether they will be helped or disadvantaged by the recommendations – and how, and why. Following public consultation, the Committee will assess the advice from consumers in order to make sure that all the important concerns are addressed. The Taskforce will then provide the recommendations to Government.

Both patients and providers are expected to benefit from these recommendations because they address concerns regarding patient safety and quality of care, reflecting current best clinical practice. They also seek to simplify the MBS which will make it easier for both providers and consumers to understand.

The specific recommendations regarding changes to diagnostic imaging items and overarching principles included in this report are expected to benefit patients by ensuring the best test is accessible to those patients who need it and to guide treatment decisions for their clinical situation.

Imaging of the head and neck

These recommendations seek to improve the way providers interact with the MBS by combining items for similar services. This change seeks to simplify and streamline the MBS. The Committee's recommendation for the Department to facilitate research into requesting practices for CT of the head by GPs following the introduction of GP-requested MRI services is expected to benefit patients by ensuring appropriate requesting of head imaging services. Patients are expected to benefit by the Committee's recommendation related to neck ultrasound by ensuring this test is only done when clinically appropriate.

Imaging of the spine and pelvis

The Committee's recommendation for primary care research into GP requesting of CT of the cervical spine (neck) is expected to benefit patients by improving understanding of choice of imaging modality so that steps can be taken to ensure the most appropriate imaging modality is chosen.

Imaging of the upper and lower limbs

The Committee's recommendation to split the current item for CT of the extremities into separate items for upper and lower limbs is aimed at improving understanding of the reasons this service is used.

Imaging of the organs of the chest, abdomen and pelvis

Patients are expected to benefit from the recommended changes to the item descriptors for ultrasound of the chest wall through a greater emphasis on the role of ultrasound in post-mastectomy surveillance.

General and whole body imaging

The Committee's recommendations on musculoskeletal cross-sectional echography items seek to improve the way clinicians interact with the MBS to ensure the appropriate item is being claimed for the service provided. These recommendations also serve to modernise the MBS through the use of more contemporary medical language.

Obstetric imaging

The Committee's recommendations relating to obstetric ultrasound are expected to benefit both patients and providers. Removing the list of clinical indications from obstetric ultrasound services will significantly simplify the obstetric imaging portion of the MBS. It will also allow providers to rely on clinical judgement to determine whether a patient should undergo the service and enable patients to access the correct test if required. The recommended new services for obstetric ultrasound items seek to remunerate providers at a level appropriate for the time and complexity of the service being provided.

MRI

The Committee's recommendations for new MRI services will benefit patients by improving access to MRI scans for a wider range of clinical conditions. These include expanding access to MRI of the pelvis for patients with cancers of the cervix and rectum to allow for re-staging of disease (determining how advanced a cancer is while treatments are being undertaken), as well as initial staging at diagnosis.

Co-claiming of radiologist attendances with diagnostic imaging

The restriction of claiming of specialist attendance items when certain diagnostic imaging services are being performed seeks to ensure that attendance items are only claimed at the same time as an imaging service when it is appropriate. This is expected to benefit patients by ensuring patients are not charged for an extra specialist attendance when this is already part of the imaging service being provided.

Capital sensitivity measures (services performed on old equipment)

The Committee's recommendation to remove NK items from the MBS seeks to benefit patients by giving providers and incentive to upgrade their equipment to use more modern technology as it becomes available. This ensures the best quality image is obtained for the patient undergoing the scan and will benefit patients through improved diagnostic accuracy.

Multiple services rules and item level restrictions

The Committee's recommendation to simplify existing multiple services rules on diagnostic imaging services will benefit providers by making the rules easier to understand. The

Committee's recommendation to remove specific co-claiming restrictions on diagnostic imaging items will benefit patients by allowing the appropriate tests to be done on the same day, if it is in the best interest of the patient. The recommendation to create separate items for unilateral and bilateral musculoskeletal ultrasound services seeks to benefit patients by eliminating any incentive for providers to ask a patient to attend on two separate days to have ultrasounds performed for each side of the body.

Other recommendations

The Committee's recommendation for the creation of a new service for DEXA for patients taking aromatase inhibitor medications for the treatment of breast cancer will benefit patients by reducing the out-of-pocket costs associated with the treatment of breast cancer. The recommendation to split the current item for CT angiography into separate items for different body parts seeks to benefit patients by allowing the test to be performed more frequently on some patients, if clinically necessary.

2. About the Medicare Benefits Schedule (MBS) Review

2.1 Medicare and the MBS

2.1.1 What is Medicare?

Medicare is Australia's universal health scheme that enables all Australian residents (and some overseas visitors) to have access to a wide range of health services and medicines at little or no cost.

Introduced in 1984, Medicare has three components:

- free public hospital services for public patients
- subsidised drugs covered by the Pharmaceutical Benefits Scheme (PBS)
- subsidised health professional services listed on the MBS.

2.2 What is the MBS?

The MBS is a listing of the health professional services subsidised by the Australian Government. There are more than 5,700 MBS items that provide benefits to patients for a comprehensive range of services, including consultations, diagnostic tests and operations.

2.3 What is the MBS Review Taskforce?

The Government established the Taskforce as an advisory body to review all of the 5,700 MBS items to ensure they are aligned with contemporary clinical evidence and practice and improve health outcomes for patients. The Taskforce will also modernise the MBS by identifying any services that may be unnecessary, outdated or potentially unsafe. The Review is clinician-led, and there are no targets for savings attached to the Review.

2.3.1 What are the goals of the Taskforce?

The Taskforce is committed to providing recommendations to the Minister that will allow the MBS to deliver on each of these four key goals:

- **Affordable and universal access**—the evidence demonstrates that the MBS supports very good access to primary care services for most Australians, particularly in urban Australia. However, despite increases in the specialist workforce over the last decade, access to many specialist services remains problematic, with some rural patients being particularly under-serviced.

- **Best practice health services**—one of the core objectives of the Review is to modernise the MBS, ensuring that individual items and their descriptors are consistent with contemporary best practice and the evidence base when possible. Although the MSAC plays a crucial role in thoroughly evaluating new services, the vast majority of existing MBS items pre-date this process and have never been reviewed.
- **Value for the individual patient**—another core objective of the Review is to have an MBS that supports the delivery of services that are appropriate to the patient's needs, provide real clinical value and do not expose the patient to unnecessary risk or expense.
- **Value for the health system**—achieving the above elements of the vision will go a long way to achieving improved value for the health system overall. Reducing the volume of services that provide little or no clinical benefit will enable resources to be redirected to new and existing services that have proven benefit and are underused, particularly for patients who cannot readily access those services currently.

2.4 The Taskforce's approach

The Taskforce is reviewing existing MBS items, with a primary focus on ensuring that individual items and usage meet the definition of best practice. Within the Taskforce's brief, there is considerable scope to review and provide advice on all aspects that would contribute to a modern, transparent and responsive system. This includes not only making recommendations about adding new items or services to the MBS, but also about an MBS structure that could better accommodate changing health service models.

The Taskforce has made a conscious decision to be ambitious in its approach, and to seize this unique opportunity to recommend changes to modernise the MBS at all levels, from the clinical detail of individual items, to administrative rules and mechanisms, to structural, whole-of-MBS issues. The Taskforce will also develop a mechanism for an ongoing review of the MBS once the current review has concluded.

As the MBS Review is clinician-led, the Taskforce decided that clinical committees should conduct the detailed review of MBS items. The committees are broad-based in their membership, and members have been appointed in an individual capacity, rather than as representatives of any organisation.

The Taskforce asked the committees to review MBS items using a framework based on Professor Adam Elshaug's appropriate use criteria (1) . The framework consists of seven steps:

1. Develop an initial fact base for all items under consideration, drawing on the relevant data and literature.

2. Identify items that are obsolete, are of questionable clinical value[1], are misused[2] and/or pose a risk to patient safety. This step includes prioritising items as "priority 1", "priority 2", or "priority 3", using a prioritisation methodology (described in more detail below).
3. Identify any issues, develop hypotheses for recommendations and create a work plan (including establishing working groups, when required) to arrive at recommendations for each item.
4. Gather further data, clinical guidelines and relevant literature in order to make provisional recommendations and draft accompanying rationales, as per the work plan. This process begins with priority 1 items, continues with priority 2 items and concludes with priority 3 items. This step also involves consultation with relevant stakeholders within the committee, working groups, and relevant colleagues or Colleges. For complex cases, full appropriate use criteria were developed for the item's explanatory notes.
5. Review the provisional recommendations and the accompanying rationales, and gather further evidence as required.
6. Finalise the recommendations in preparation for broader stakeholder consultation.
7. Incorporate feedback gathered during stakeholder consultation and finalise the Review Report, which provides recommendations for the Taskforce.

All MBS items will be reviewed during the course of the MBS Review. However, given the breadth of and timeframe for the Review, each clinical committee has to develop a work plan and assign priorities, keeping in mind the objectives of the Review. Committees use a robust prioritisation methodology to focus their attention and resources on the most important items requiring review. This was determined based on a combination of two standard metrics, derived from the appropriate use criteria:

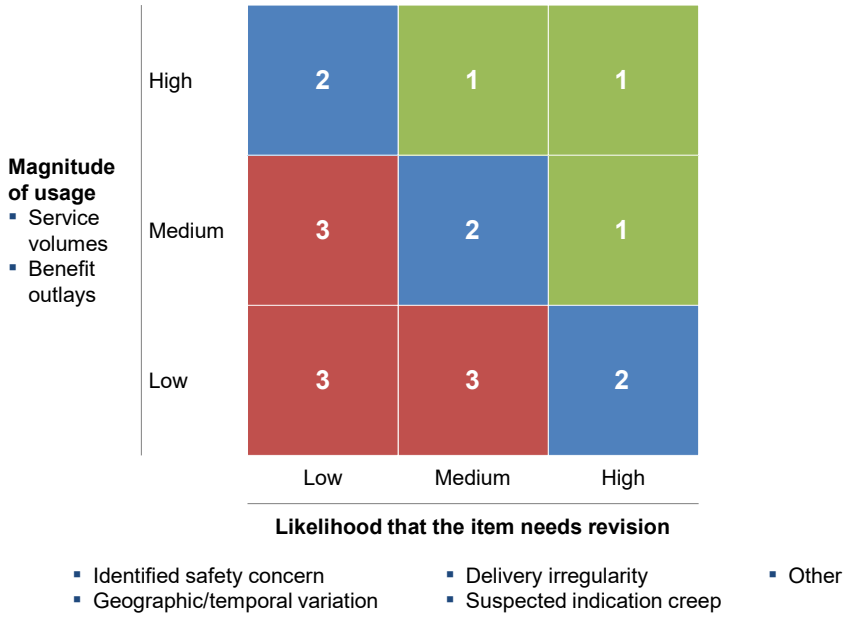
- Service volume.
- The likelihood that the item needed to be revised, determined by indicators such as identified safety concerns, geographic or temporal variation, delivery irregularity, the

[1] The use of an intervention that evidence suggests confers no or very little benefit on patients; or where the risk of harm exceeds the likely benefit; or, more broadly, where the added costs of the intervention do not provide proportional added benefits.

[2] The use of MBS services for purposes other than those intended. This includes a range of behaviours, from failing to adhere to particular item descriptors or rules through to deliberate fraud.

potential misuse of indications or other concerns raised by the clinical committee (such as inappropriate co-claiming).

Figure 1: Prioritisation matrix



For each item, these two metrics were ranked high, medium or low. These rankings were then combined to generate a priority ranking ranging from one to three (where priority 1 items are the highest priority and priority 3 items are the lowest priority for review), using a prioritisation matrix (Figure 1). Clinical committees use this priority ranking to organise their review of item numbers and apportion the amount of time spent on each item.

3. About the Diagnostic Imaging Clinical Committee

The Committee is part of the first tranche of clinical committees. It was established in 2015 to make recommendations to the Taskforce on the review of MBS items within its remit, based on rapid evidence review and clinical expertise. Details of the Committee's membership are given at Table 1.

The Upper and Lower Limb Working Group (the Working Group) was established in 2016 to provide advice to the Committee regarding upper and lower limb imaging items within its remit. Details of the Working Group's membership are given at Table 2.

3.1 Diagnostic Imaging Clinical Committee members

The Committee consists of 11 members, whose names, positions/organisations and declared conflicts of interest are listed in Table 1.

Table 1: Diagnostic Imaging Clinical Committee members

Name	Position/organisation	Declared conflict of interest
Dr David Brazier (Chair)	Radiologist, Royal North Shore Hospital	User of MBS services Provider of MBS services
Professor Alexander Pitman	Director of Nuclear Medicine and PET, Lake Imaging; Adjunct Professor, Medical Imaging, University of Notre Dame	User of MBS services Provider of MBS services
Dr William Macdonald	Head, Nuclear Medicine, Fiona Stanley Hospital and Royal Perth Hospital; Past President, Australasian Association of Nuclear Medicine Specialists	User of MBS services Provider of MBS services
Associate Professor Michael Yelland	Associate Professor of Primary Health Care, School of Medicine, Griffith University, General and Musculoskeletal Medicine Practitioner	User of MBS services Provider of MBS services
Dr Richard Ussher	Director of Training, Radiology, Ballarat Health Services; Director, Grampians BreastScreen	User of MBS services Provider of MBS services

Clinical Associate Professor Sanjay Jeganathan	Managing Partner & Lead Radiologist, Perth Radiological Clinic, Bentley Hospital; Consultant Radiologist, Fiona Stanley Hospital; Councillor, Faculty of Clinical Radiology, Royal Australian and New Zealand College of Radiologists	User of MBS services Provider of MBS services Director of Perth Rad Clinic Ltd
Dr Michael Jones*	Radiologist, PRP Diagnostic Imaging	User of MBS services Provider of MBS services
Dr Walid Jammal	Clinical Lecturer, Faculty of Medicine, University of Sydney; Conjoint Senior Lecturer, School of Medicine, University of Western Sydney; Private practice	User of MBS services Provider of MBS services Member of the Western Sydney Health Network Board
Associate Professor Rachael Moorin	Associate Professor, Health Policy & Health Economics, School of Public Health, Curtin University	User of MBS services
Dr Jeremy Price	Radiologist, Universal Medical Imaging, Canberra; Visiting Medical Officer, BreastScreen ACT	User of MBS services Provider of MBS services
Professor Jenny Doust*	Professor of Clinical Epidemiology, Centre for Research in Evidence Based Practice, Bond University; General Practitioner	User of MBS services
Ms Geraldine Roberston	Consumer Representative, Consumers Health Forum & Breast Cancer Network Australia	User of MBS services
Dr Matthew Andrews	MBS Review Taskforce (ex-officio)	User of MBS services Provider of MBS services

*Professor Doust and Dr Jones resigned from the Committee prior to the conclusion of this review.

Table 2: Upper and Lower Limb Working Group members

Name	Position/organisation	Declared conflict of interest
Professor Ken Thomson (Chair)	Program Director, Radiology and Nuclear Medicine, Alfred Hospital	User of MBS services Provider of MBS services
Dr William Macdonald	Head, Nuclear Medicine, Fiona Stanley Hospital and Royal Perth Hospital; Past President, Australasian Association of Nuclear Medicine Specialists	User of MBS services Provider of MBS services
Dr Richard Ussher	Director of Training, Radiology, Ballarat Health Services; Director, Grampians BreastScreen	User of MBS services Provider of MBS services
Dr Benjamin Ewald	Senior Lecturer in Epidemiology and General Practitioner, Centre for Clinical Epidemiology and Biostatistics University of Newcastle	User of MBS services
Professor David Hunter	Chair of Institute of Bone and Joint Research Professor of Medicine, University of Sydney	User of MBS services
Dr Ian Harris	Professor of Orthopaedic Surgery, UNSW; Director, Whitlam Orthopaedic Research Centre; Director, Injury and Rehabilitation Research Stream, Ingham Institute for Applied Medical Research; Director, Surgical Specialties Stream, SWSLHD	User of MBS services Provider of MBS services
Associate Professor David Connell	Clinical Director, Imaging @ Olympic Park; Adjunct Associate Professor, Medical Imaging and Radiation Sciences, Monash University	User of MBS services Provider of MBS services

3.2 Conflicts of interest

All members of the Taskforce, clinical committees and working groups are asked to declare any conflicts of interest at the start of their involvement and reminded to update their declarations periodically. A complete list of declared conflicts of interest can be viewed in Tables 1 and 2 above.

It is noted that the majority of the Committee members share a common conflict of interest in reviewing items that are a source of revenue for them (i.e. Committee members claim the items under review). This conflict is inherent in a clinician-led process, and having been acknowledged by the Committee and the Taskforce, it was agreed that this should not prevent a clinician from participating in the review.

3.3 Areas of responsibility of the Committee

The Committee reviewed over 500 items relating to diagnostic imaging of different body areas using a body systems approach.

Items included in this review relate imaging services that fall under the following categories:

- Head and neck imaging
- Spine and pelvis imaging
- Imaging of the upper and lower limb
- Imaging of the organs of the chest, abdomen and pelvis
- General and whole body imaging
- Obstetric imaging
- Magnetic resonance imaging
- Ungrouped items

For most body areas, items reviewed included those for the imaging modalities of ultrasound, x-ray, CT and MRI.

In addition, all NK items listed on the MBS were reviewed giving consideration to capital sensitivity measures (imaging services performed on old equipment). Specific consideration was given to the appropriateness of co-claiming of attendance items by radiologists with diagnostic imaging services and multiple services rules for diagnostic imaging services.

The majority of items reviewed are listed in Category 5 – Diagnostic Imaging Services of the MBS and included in the DIST. An additional five items reviewed are listed in Category 3 – Therapeutic Procedures.

All other items allocated to the Committee have been reviewed and included in the following reports from the Diagnostic Imaging Clinical Committee:

- First Report – Low Back Pain
- Second Report – Bone Densitometry
- Third Report – Knee Imaging
- Fourth Report – Pulmonary Embolism and Deep Vein Thrombosis
- Nuclear Medicine
- Breast Imaging

Other components of the Committee's review related to advice provided by other clinical committees within the MBS Review Taskforce.

3.4 Summary of the Committee's review approach

The review of these items occurred over 15 full committee meetings and a number of teleconferences between March 2016 and December 2018, in addition to out-of-session correspondence. These deliberations formed the basis for the development of the recommendations and rationales contained in this report.

The review drew on various types of MBS data, including data on utilisation of items (services, benefits, patients, providers and growth rates); service provision (type of provider, geography of service provision); patients (demographics and services per patient); co-claiming or episodes of services (same-day claiming and claiming with specific items over time); and additional provider and patient-level data, when required.

The review also drew on data presented in the relevant literature and clinical guidelines, all of which are referenced in the report. Guidelines and literature were sourced from medical journals and other sources, such as professional societies.

During the course of this review, the Committee considered advice from several other Taskforce Committees about diagnostic imaging services related to their specialty area. Other committees consulted during the development of these recommendations include:

- Diagnostic Medicine Clinical Committee (DMCC)
- Endocrinology Clinical Committee (ECC)
- General Practice and Primary Care Clinical Committee (GPPCCC)
- Gynaecology Clinical Committee (GCC)
- Neurosurgery and Neurology Clinical Committee (NNCC)
- Obstetrics Clinical Committee (ObCC)
- Oncology Clinical Committee (OncCC)
- Principles and Rules Committee (PRC)
- Vascular Clinical Committee (VCC)

4. Recommendations

After reviewing the more than 500 items detailed in this report, the Committee made 38 recommendations related to these items. These recommendations include:

- The deletion of 8 items (plus all NK items) from the MBS
- Amendments to more than 140 items
- 10 proposed new items
- Recommendations into additional research in diagnostic imaging

The Committee recommends all remaining items reviewed remain unchanged as they are seen to reflect current best practice.

The 38 recommendations and their accompanying rationales are detailed in this Section, presented using a body systems approach and by imaging modality, where applicable. The data and clinical evidence used to develop recommendations are also detailed in this Section. All data presented is for the financial year (FY) and by date of processing, unless otherwise specified.

Where recommendations are made to amend existing K items, the Committee recommends the same change be applied to corresponding NK items (noting the recommendation in Section 4.9 to remove NK items from the MBS).

4.1 Imaging of the head and neck

The Committee completed a review of head items, during which it developed the recommendations and rationales outlined below by imaging modality.

During this review of head imaging items, the Committee considered advice from the GPPCCC regarding heading imaging items 56001, 63507 and 63551. Additionally, it considered advice from the ECC regarding neck imaging items 55011 and 55013.

Head imaging items have been broken up into the following categories:

- Brain imaging items
- Skull imaging items
- Imaging of facial bones including orbits and sinuses
- Mandible including dental

As a component of the review of these items, the Committee observed Medicare data from 2014/15 on services of the items for review in addition to detailed data on the co-claiming of these items with other MBS items. For all items, 5-year compound annual growth rate (CAGR) was also considered.

After considering the available evidence, the Committee agreed that the data provided does not indicate inappropriate practice. As a result, only two recommendations regarding head imaging have been put forward by the Committee. A third recommendation, on neck imaging and a fourth on primary care research into head imaging were also developed. Where no recommendation has been made to change or delete an item, the Committee regarded the item reflects current best practice and adequately describes the relevant imaging service.

X-ray of the head (items 57901 to 57926)

The Committee reviewed items related to x-ray of the head and considered service and benefits data related to these items (Tables 3 and 4, below). After considering the appropriateness of these services in contemporary medical practice, the Committee developed two recommendations relating to these items. These are detailed below. The

Committee agreed all other items for x-ray of the face and head should remain unchanged as they reflect current best practice.

Table 3: Services and benefits data for x-ray of petrous temporal, mastoid, sinuses and facial bones, 2014/15.

Item	Descriptor	Schedule Fee	Services FY2014/15	Benefits FY2014/15	Services 5-year CAGR
57906	X-ray mastoids (R)	$64.50	429	$25,648	-13%
57909	X-ray petrous temporal bones (R)	$64.50	236	$13,455	-13%
57920	X-ray mastoids (R) (NK)	$32.25	0	$0	-
57923	X-ray petrous temporal bones (R) (NK)	$32.25	0	$0	-
57903	X-ray sinuses (R)	$47.30	16,861	$732,274	-12%
57912	X-ray facial bones orbit, maxilla or malar, any or all (R)	$47.15	21,713	$927,322	-16%
57917	X-ray sinuses (R) (NK)	$23.65	1	$23.65	-
57926	X-ray facial bones orbit, maxilla or malar, any or all (R) (NK)	$23.60	9	$188.00	-

Table 4: Services and benefits data for items for x-ray of the head, 2014/15.

Item	Descriptor	Schedule Fee	Services 2014/15	Benefits 2014/15	Services 5-year CAGR
57939	X-RAY PALATOPHARYNGEAL STUDIES with fluoroscopic screening (R)	$73.75	1,295	$75,902	5%
57942	X-RAY PALATOPHARYNGEAL STUDIES without fluoroscopic screening (R)	$49.65	655	$30,740	-7%
57945	X-RAY LARYNX, LATERAL AIRWAYS AND SOFT TISSUES OF THE NECK, not being a service associated with a service to which item 57939 or 57942 applies (R)	$43.40	12,846	$507,465	-2%
57901	X-ray skull (R)	$64.50	13,469	$796,663	-6%
57902	Cephalometry (R)	$64.50	166,455	$10,133,384	3%

4.1.1 Recommendation 1: Consolidate x-ray items for petrous temporal bone (items 57906 and 57909) with mastoid bone (items 57920 and 57923).

The Committee recommended consolidating mastoid item numbers 57906 and 57920 (NK) with petrous temporal bones item numbers 57909 and 57923 (NK) thereby creating new item numbers for x-ray of the petrous temporal or mastoid bones.

Table 5, below, shows the proposed item descriptors and associated MBS fees for the consolidated items.

Table 5: Proposed consolidated item descriptors for x-ray of mastoid or petrous temporal bones.

Item	Item Descriptor
XXXXX	MASTOIDS or PETROUS TEMPORAL BONES (R) Fee: $64.50 Benefit: 75% = $48.40 85% = $54.85
XXXXX	MASTOIDS or PETROUS TEMPORAL BONES (R) (NK) Fee: $32.25 Benefit: 75% = $24.20 85% = $27.45

4.1.2 Rationale 1:

The Committee considered whether x-ray of sinuses, mastoids and petrous temporal bones were obsolete. Following the consideration of available data (Tables 3 and 4), the Committee agreed that the items remain relevant in contemporary clinical practice but should be consolidated due to low number of services and similarity of services. This change would assist with simplifying the MBS. Providers would claim the new item, regardless of whether an x-ray was performed of the mastoids or petrous temporal bones.

4.1.3 Recommendation 2: Consolidate x-ray items for sinuses (items 57903 and 57912) and facial bones (items 57917 and 57926).

The Committee recommended consolidating sinuses item numbers 57903 and 57917 (NK) with facial bones item numbers 57912 and 57926 (NK) thereby creating new item numbers for x-ray of the sinuses or facial bones (Table 6).

Table 6: Proposed consolidated item descriptors for x-ray of the sinuses or facial bones.

Item	Descriptor
XXXXX	SINUSES or FACIAL BONES orbit, maxilla or malar, any or all (R) Fee: $47.30 Benefit: 75% = $35.50 85% = $40.25

Item	Descriptor
XXXXX	SINUSES or FACIAL BONES orbit, maxilla or malar, any or all (R) (NK) Fee: $23.65 Benefit: 75% = $17.75 85% = $20.15

4.1.4 Rationale 2:

The Committee considered whether x-ray of sinuses and facial bones were obsolete. Following the consideration of additional data (Table 4), the Committee agreed that the items remained relevant in contemporary clinical practice but could be consolidated due to low number of services and similarity of services. This would assist with simplifying the MBS. Providers would claim the new item, regardless of whether an x-ray was performed of the sinuses or facial bones.

CT and MRI (items 56001, 56007, 63551 and 63552)

The Committee reviewed items for CT and MRI of the head and brain. No changes to these items were recommended as the Committee agreed the current items adequately describe the relevant test and reflect current best practice. However, the Committee did develop a recommendation regarding requesting of head CT and head MRI. The recommendation is outlined below. In developing this recommendation, the Committee considered information and advice regarding the use of CT of the head in children and adults.

Table 7, below, shows the number of services for CT of the head (items 56001 and 56007) among adults and MRI of the head (item 63551) for patients older than 16 years.

Table 7: Total number of services for items 56001, 56007 and 63551, 2015/16.

Item	Item Descriptor	Services
56001	COMPUTED TOMOGRAPHY - scan of brain without intravenous contrast medium, not being a service to which item 57001 applies	301,050
56007	COMPUTED TOMOGRAPHY - scan of brain with intravenous contrast medium and with any scans of the brain prior to intravenous contrast injection, when undertaken, not being a service to which item 57007 applies	78,437
63551	Referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of head for a patient 16 years or older for any of the following: - unexplained seizure(s) (R) (Contrast) (Anaes.) - unexplained chronic headache with suspected intracranial pathology	92,143

Review into the use of paediatric head CT

As part of its review process, the GPPCCC provided advice to the Committee on head imaging MBS items 56001, 63507 and 63551. In particular, the GPPCCC gave advice

regarding the revision of clinical indicators for head CT items to limit use of head CT in children.

If the number of such indications is too unwieldy to be explicitly listed, it is suggested that exclusions (inappropriate clinical indications) are listed for head CT imaging within the descriptor for inappropriate clinical indications.

If the number of such indications is limited, it is suggested that item descriptors be revised to restrict head CT imaging in children to only the listed indications within the descriptor.

Finally, if no appropriate indications exist, head CT items could be revised to restrict use in children.

The data provided below in Table 8 (below) indicates that since the introduction of GP-requested paediatric head MRI items in 2012, there has a reduction of almost 50% in the number of head CT services requested for the paediatric population. The intention of the introduction of GP-requested paediatric head MRI items included reducing exposure to ionising radiation associated with head CT.

Table 8: Services for item 56001 by age (0-14 years) from 2011 to 2016.

56001 – Non-contrast Head CT	2011/12	2012/13	2013/14	2014/15	2015/16
Age 0 to 4	1,007	996	769	706	589
Age 5 to 14	6,746	6,307	3,993	3,631	2,994
Age 0 to 14	7,753	7,303	4,762	4,337	3,583
Total services (all ages)	266,089	285,228	297,585	301,321	300,835
% of services for paediatric patients	2.9%	2.6%	1.6%	1.4%	1.2%

Table 9 (below) shows the relative growth in total services for item 63507 (under 16 MRI scan of the head) between the 2012/13 and 2015/16 financial years.

Table 9: Services for item 63507 from 2012/13 to 2017/16.

63507 - MRI of the Head – patients under 16 years	2012/2013	2013/2014	2014/2015	2015/2016
Total services	3,154	7,036	8,459	8,667

In reviewing items related to paediatric head CT and MRI, the Committee discussed the above data. After examining the above, the Committee decided not to recommend changes to the item descriptor for head MRI for patients under 16 years.

Review into the use of adult head CT

The Committee also discussed the use of head CT among the adult population. During its deliberations, the Committee considered advice from the GPPCCC to revise the item

descriptor for GP-requested adult head MRI. It was noted that the current terminology of '*unexplained chronic headaches with suspected intracranial pathology*' lacks specificity. There was concern it may be used to investigate common chronic headache presentations. The GPPCCC suggested the clinical indications for head MRI could be revised to include a requirement for abnormal neurological signs. The wording of such an amendment may require the input of both radiologists and requestor specialties (such as neurology and/or neurosurgery) to ensure appropriately specific clinical indications that do not inadvertently exclude appropriate use.

The Committee reviewed Medicare service data relating to the use of head CT and head MRI in adults and their associated trends over time. Since the introduction of GP-requested adult head MRI items, there has only been a small reduction in the growth of head CT among the adult population. The Committee discussed the fact that MRI is a more expensive investigation and carries a risk of over-diagnosis, especially in the older population. Use of head MRI, they agreed, should therefore be limited to cases where the benefit of increased access to patients in primary care outweighs concern regarding over-diagnosis.

Table 10 (below) shows the change in number of services for GP-requested adult head MRI between 2013/14 and 2015/16. Following the introduction of GP-requested adult head MRI to the MBS in 2012, there was a 131 per cent increase in the number of services from 2013/14 to 2015/16 without a significant corresponding reduction in GP requested head CT services.

Table 10: Services for item 63551 from 2013/14 to 2015/16.

63551 – GP-requested MRI of the head	2013/2014	2014/2015	2015/2016
Total services	39,826	78,573	92,143

The Committee also reviewed co-claiming data on the use of adult head MRI and head CT and discussed the fact that that less than 1 per cent of patients who had a head CT also had a head MRI within 14 days. The Committee therefore agreed there does not appear to be an issue with co-claiming of these items. However, they noted the low proportion of those receiving a head MRI who went on to have a specialist consultation (14 per cent had co-claimed item 104; an initial specialist consultation) which raises the question of whether head MRI is being over-requested. The Committee agreed this data indicates head MRI is being used to rule out relevant pathology.

The Committee discussed headache as a common presentation which causes many patients to worry that they may have a brain tumour. In this setting, a normal test serves an important therapeutic function in reassuring patients. The Committee agreed that MRI is a superior test to CT for imaging the brain. They acknowledged CT may be used in preference

over MRI as it is cheaper and more widely available so may be chosen when there is an expectation that the result will be normal. Furthermore, MRI is associated with a higher out-of-pocket cost to the patient and accessibility may be an issue, even in urban areas.

The Committee discussed a recommendation made by the DMCC regarding looking at clinical signposts in headache. These included thunder clap headache, new onset headache in patients over 50 years old and headache in the presence of positive neurological signs. The advice given by the DMCC included examining these clinical signposts in greater depth to assist with appropriate requesting of head imaging.

The Committee agreed that CT is probably chosen more readily in instances where there is a low probability of an abnormality being identified while MRI is chosen where there is a higher probability of finding an abnormality. The Committee discussed the importance of GP-patient relationship in negotiating concern regarding chronic headache and the low likelihood of intracranial pathology as a cause. The Committee acknowledged the lack of detail in the current item descriptor for head CT and the fact that it can be done for any indication. They agreed, however, that adding indications for specific presentations may be problematic and would unnecessarily complicate the MBS. The Committee therefore decided not to recommend any changes to these MBS items

After reviewing the available Medicare data on claiming practices for head MRI and head CT by GPs since the introduction of GP-requested head MRI to the MBS, the Committee decided additional primary care research was necessary. The Committee therefore recommended this be facilitated by the Department.

4.1.5 Recommendation 3: The Department to facilitate primary care research into why the introduction of GP-requested head MRI hasn't resulted in a greater reduction in the requesting of head CT.

After reviewing the available Medicare data on claiming practices for head MRI and head CT by GPs since the introduction of GP-requested head MRI to the MBS, the Committee decided additional primary care research was necessary and recommended this be facilitated by the Department.

4.1.6 Rationale 3:

In developing this recommendation, the Committee considered data on requesting practices for CT and MRI of the head among adults and children. It also considered advice from the GPPCCC regarding clinical indicators for head CT items and a recommendation from the DMCC regarding clinical indications for head CT among adults. In making this recommendation, the Committee agreed that additional information regarding GP-

requesting practices for MRI and CT of the head is required before changes to the items should be considered.

Ultrasound of the neck (items 55011, 55013, 55032 and 55033)

The Committee reviewed MBS diagnostic imaging items for ultrasound of the neck. After reviewing the data and evidence related to these items and considering advice from the ECC the Committee developed one recommendation regarding ultrasound of the neck. The recommendation is outlined below.

4.1.7 Recommendation 4: Add explanatory notes about appropriate indications for neck ultrasound to items 55032 and 55033.

The Committee recommended thyroid ultrasound items 55032 and 55033 be retained with additional explanatory notes about appropriate and inappropriate indications for neck ultrasound.

These explanatory notes would include advice that:

- *Thyroid ultrasound is indicated for the (i) evaluation of a palpable thyroid nodule or neck mass; (ii) evaluation of abnormalities detected on other imaging studies regarding the thyroid, parathyroid or neck masses; (iii) follow up of known thyroid nodules; (iv) evaluation of presence, size and location of the thyroid; (v) screening of high risk patients for occult thyroid malignancy; (vi) localisation of parathyroids in patients with hyperparathyroidism; (vii) perioperative staging of thyroid cancer; (viii) surveillance for recurrent disease for a patient with a history of thyroid cancer; (ix) ultrasound guided fine needle biopsy of a thyroid lymph node or neck mass.*
- *Neck ultrasound is not indicated for amongst others (i) abnormalities in thyroid function tests; (ii) abnormalities in thyroid antibodies; (iii) ultrasounds of the thyroid performed for symptoms such as sore throat, neck pain and globus pharyngeus-type symptoms, in the absence of any indication of thyroid disease.*

4.1.8 Rationale 4:

The ECC provided input to the Committee on neck ultrasound items 55011, 55013, 55032 and 55033 as these services are frequently requested or used in endocrine testing. Table 11 (below) shows the neck ultrasound items reviewed by the Committee with the accompanying service and benefits data for 2014/15.

Table 11: Services and benefits data for items 55011, 55013, 55032 and 55033, 2014/15.

Item	Descriptor	Schedule fee	Services 2014/15	Benefits 2014/15	Services 5 year annual average growth
55011	Neck ultrasound (R) (NK)	$54.55	4	$197	-
55013	Neck ultrasound (NR) (NK)	$18.95	44	$713	-
55032	Neck ultrasound (R)	$109.10	293,766	$29,982,228	9.8%
55033	Neck ultrasound (NR)	$37.85	11,648	$410,139	4.5%

This data supports the Committee's view that patients are often referred for neck ultrasound with insufficient indications and that explanatory notes based on the most relevant literature should be added to guide requesting practice.

Data on the combined claiming (co-claiming) of neck ultrasound with other MBS items was also considered. The biopsy items included in this item combination data includes items 31420 (biopsy of lymph node of the neck) and 30075 (diagnostic biopsy of lymph gland). Table 12 (below) shows that of the 305,891 episodes in which item 55032 (ultrasound of the neck) was claimed, it was only co-claimed with item 31420 (biopsy of lymph node of the neck) during 231 episodes. This represents 0.08% of the total number of 55032 episodes.

Table 12: Number of episodes and services for item 55032 co-claimed with item 31420 (biopsy of lymph node of the neck), 2015/16.

Items	Episodes	Number of Services
55032	305,891	306,021
55032 claimed with 31420	231	463

Table 13 (below) shows that of the 305,085 episodes of 55032, it was only co-claimed with item 30075 (diagnostic biopsy of lymph gland) for 1,037 episodes. This represents 0.34% of the total number of 55032 episodes.

Table 13: Number of episodes and services for item 55032 co-claimed with item 30075 (diagnostic biopsy of lymph node), 2015/16.

Items	Episodes	Number of Services
55032	305,085	305,213
55032 claimed with 30075	1,037	2,081

The Committee agreed the above co-claiming data of neck ultrasound and neck biopsy items does not indicate inappropriate use of these MBS items.

Table 14 (below) shows that 272,737 patients had at least one neck ultrasound in 2014-15. Of these, 222,615 had only one ultrasound and 41,793 had two ultrasounds during the 12 months following the initial service.

Table 14: Number of patients who had more than one neck ultrasound in a 12-month period, from the date of the original service, 2014/15.

Total number of services for item 55032 in a 12-month period	Number of patients	Percentage of total services
1	222,615	81.62%
2	41,793	15.32%
3	6,809	2.50%
4	1,233	0.45%
5	220	0.02%
6	55	<0.02%
7	8	<0.02%
9	<6	<0.02%
11	<6	<0.02%
TOTAL	272,737	

The Committee agreed the above data on claiming of multiple neck ultrasounds within a 12-month period does not indicate inappropriate use of the item.

The Committee also considered state-by-state service data on neck ultrasound items. Table 15 (below) shows the number of services for these items by state. The Committee agreed the data does not provide evidence of inappropriate claiming practices.

Table 15: State Variation data for MBS items 55032 and 55033, 2014/15.

Item	Services-NSW	Services-Vic	Services-Qld	Services-SA	Services-WA	Services-Tas	Services-NT	Services-ACT	Services-Australia
55032	113,851	72,241	60,390	14,426	21,310	5,041	1,694	4,813	293,766
55033	6,024	3,642	771	1,045	153	10	np	np	11,648

np – not for publishing due to low service volumes.

Choosing Wisely Australia recommendations relating to head imaging

As a component of their discussion, the Committee discussed recommendations made by the Royal Australian and New Zealand College of Radiologists (RANZCR) and the Australasian College of Emergency Medicine (ACEM) included within the Choosing Wisely Australia recommendations on diagnostic imaging (2-4). Specifically, they discussed the recommendation below:

Don't request CT head scans in patients with a head injury, unless indicated by a validated clinical decision rule. *Most head injuries presenting to emergency departments will be minor and do not require immediate neurosurgical intervention or inpatient care. Mild head injury patients can be risk stratified into 'low' or 'high' risk groups based on the presence or absence of identified clinical risk factors. Current validated clinical decision rules include the Canadian CT Head Rule (for adults) or the PECARN (Paediatric Emergency Care Applied Research Network) Tool (for children). These rules can safely identify patients who can be discharged home, without CT scanning.*

The Committee agreed this recommendation should be considered and adhered to when requesting imaging investigations in the setting of head injury.

4.2 Imaging of the spine and pelvis

The Committee reviewed items related to imaging of the spine and pelvis.

In reviewing these MBS items, the Committee acknowledged its previous recommendations on imaging of the spine for patients with low back pain, detailed in the *First Report from the Diagnostic Imaging Clinical Committee – Low Back Pain*. These recommendations were developed based on recommendations made by the Low Back Pain Working Group (LBPWG).

A summary of the previous recommendations is given below.

MRI for low back pain – The LBPWG recommended consideration be given to amending item descriptors to clarify the indications for low back imaging for each modality. In particular, plain x-ray of the lower back could be limited to suspected fracture or inflammatory spondyloarthritis.

The LBPWG also recommended consideration of GP-requested MRI of the lumbosacral spine, for defined indications, with strategies for ensuring appropriate requesting by clinicians. The Committee endorsed the recommendation that MBS funding for GP-requested MRI of the lumbosacral spine for defined indications, should be considered, with strategies for ensuring appropriate requesting by clinicians.

X-ray for low back pain – The LBPWG recommend the use of multi-region x-ray of the spine and be limited, in particular, three or four region imaging on the same day (excluding trauma and scoliosis). In addition, the Committee made a specific recommendation to limit the use of three and four region x-ray of the spine requested by allied health practitioners.

CT for low back pain – The LBPWG recommended consideration of limiting CT-requesting by GPs. In the event of a GP-requested MBS item for MRI of the lumbosacral spine, CT should only be used to assess low back pain where MRI is unavailable or contraindicated. The Committee endorsed the recommendation that consideration be given to limiting requesting by GPs, subject to a modification. The modification clarified that CT should only be used for

selected clinical indications, instead of only where MRI is unavailable or contraindicated. Further work is required to describe and define these selective indications.

The Government considered the Committee's recommendations and decided to remove the ability of chiropractors to request three and four region x-rays of the spine. These changes were implemented on 1 November 2017.

X-ray of the spine (items 58100 to 58127, 59700 59701, 59724 and 59725)

X-ray of the spine and pelvis may be done as a first-line assessment for injuries such as fractures. X-rays can also show evidence of other injuries or conditions affecting the different regions of the spine or their related tissues. The Committee reviewed MBS items for x-ray of the spine. During this review, the Committee discussed Medicare service data for these items (Table 16, below).

Table 16: Medicare service and benefits data for MBS items for X-ray of the spine, 2015/16.

Item	Item descriptor	Schedule Fee	Total Benefits paid 2015/16	Number of services 2015/16	5 year service change %
58100	Spine cervical (R)	$67.15	$9,767,814	156,916	-2.2%
58102	Spine cervical (R) (NK)	$33.60	$1,613	52	-
58103	Spine thoracic (R)	$55.10	$3,435,933	67,329	-1.5%
58105	Spine thoracic (R) (NK)	$27.55	$744	31	-
58106	Spine lumbosacral (R)	$77.00	$21,276,992	296,914	-2.1%
58108	Spine, four regions, cervical, thoracic, lumbosacral and sacrococcygeal (R)	$110.00	$307,376	2,998	6.1%
58109	Spine sacrococcygeal (R)	$47.00	$832,192	19,377	4.0%
58111	Spine lumbosacral (R) (NK)	$38.50	$3,223	91	-
58112	Spine, two examinations of the kind referred to in items 58100, 58103, 58106 and 58109 (R)	$97.25	$11,562,257	127,069	-0.5%
58114	Spine, four regions, cervical, thoracic, lumbosacral and sacrococcygeal (R) (NK)	$55.00	$1,059	24	-
58115	Spine, three examinations of the kind mentioned in items 58100, 58103, 58106 and 58109 (R)	$110.00	$2,642,795	25,396	4.7%
58117	Spine sacrococcygeal (R) (NK)	$23.50	$240	12	-
58120	Spine, four regions, if the service to which item 58120 or 58121 has not been performed on the same patient within one calendar year (R)	$110.00	$1,851,438	17,752	5.3%
58121	Spine, three examinations of the kind mentioned in items 58100, 58103, 58106 and 58109, R, if the service to which item 58120 or 58121 applies has not been performed on the same patient within the same calendar year	$110.00	$ 10,500,320	100,728	-8.4%
58123	Spine, two examinations of the kind referred to in items 58100, 58102, 58103, 58105, 58106, 58109, 58111 and 58117 (R) (NK)	$48.65	$3,165	70	-

58124	Spine, three examinations of the kind mentioned in items 58100, 58102, 58103, 58105, 58106, 58109, 58111 and 58117 (R) (NK)	$55.00	$250	np	np
58126	Spine, four regions, cervical, thoracic, lumbosacral and sacrococcygeal, if the service to which item 58120, 58121, 58126 or 58127 applies has not been performed on the same patient within the same calendar year (R) (NK)	$55.00	$2,038	39	39
59751	ARTHROGRAPHY, each joint, excluding facet (zygapophyseal) joints of the spine, single or double contrast study, with or without preliminary plain films and with preparation and contrast injection (R)	$139.15	$3,027,244	25,528	-

np – not for publishing due to low service volume.

After giving consideration to the clinical utility and Medicare usage data relating to each item, the Committee decided not to make any changes to any of the MBS items for x-ray of the spine.

The Committee discussed the clinical relevance of MBS items for discography (59700) and myelography (59724). They reviewed Medicare service data relating to the use of these items (Table 17, below).

Table 17: Medicare service and benefits data for MBS items for discography and myelography, 2015/16.

Item	Item descriptor	Schedule Fee	Total Benefits paid 2015/16	Number of services 2015/16	5 year service change %
59700	Discography, each disc, with or without preliminary plain films and with preparation and contrast injection - (R) (Anaes.)	$96.55	$110,342	1,503	-2.5
59701	Discography, each disc, with or without preliminary plain films and with preparation and contrast injection - (R) (NK) (Anaes.)	$48.30	$39	np	-
59724	Myelography, 1 or more regions, with or without preliminary plain films and with preparation and contrast injection, not being a service associated with a service to which item 56219 applies - (R) (Anaes.)	$226.45	$72,738	409	-4.6
59725	Myelography, 1 or more regions, with or without preliminary plain films and with preparation and contrast injection, not being a service associated with a service to which item 56219 or 56259 applies - (R) (NK) (Anaes.)	$113.25	$103	np	-

np: not for publishing due to low service volumes.

The Committee discussed the low service volume of these items and considered whether these items might be considered obsolete. The Committee agreed that these services remain clinically relevant, specifically for patients who have back pain without apparent cause and also for patients for whom MRI is inappropriate. The Committee therefore decided not to recommend changes to these items.

In arriving at this decision, the Committee engaged in extensive deliberations around the use of discography in the setting of discogenic back pain. Specifically, the Committee considered the comparative safety and diagnostic utility of the procedure. Advice was sought from the NNCC and PMCC. The Committee considered advice provided from both these committees, along with relevant literature and Medicare data, noting the service volumes for the items are low and not increasing in most parts of Australia.

After considerable discussion, the Committee agreed the threshold for declaring the test unsafe has not been reached and therefore the, service should remain on the MBS. However, the Committee agreed the test should only be performed by appropriately-trained spinal specialists on a carefully selected patient group in line with relevant clinical practice guidelines.

Ultrasound of the spine and pelvis (items 55816 to 55827, 55852 to 55855)

Spinal ultrasound imaging uses sound waves to produce images of the anatomy of the spine, spinal cord and overlying subcutaneous tissues. The Committee reviewed the standard Medicare data related to ultrasound of the spine MBS items (Table 18, below).

Table 18: Medicare service data for MBS items for ultrasound of the spine, 2015/16.

Item	Item Descriptor	Schedule Fee	Number of services	Benefits paid
55852	Paediatric Spine, Spinal Cord and Overlying Subcutaneous Tissues, Ultrasound Scan of, referred	$109.10	2,020	$211,727
55853	Paediatric Spine, Spinal Cord and Overlying Subcutaneous Tissues, Ultrasound Scan of, referred, NK	$54.55	0	-
55854	Paediatric Spine, Spinal Cord and Overlying Subcutaneous Tissues, Ultrasound Scan of, non-referred	37.85	17	$589
55855	Paediatric Spine, Spinal Cord and Overlying Subcutaneous Tissues, Ultrasound Scan of, non-referred, NK	18.95	0	-

The Committee considered the clinical relevance of item 55854 (non-referred ultrasound of the paediatric spine, spinal cord and overlying subcutaneous tissues). After reviewing Medicare data which showed a decrease in use of this service and low volume of services (17 services) in 2015/16, members agreed this service remains clinically relevant and is not obsolete. The Committee agreed these spine ultrasound items continue to be relevant and appropriate in contemporary medical practice. They therefore decided no changes were required to these MBS items.

The Committee also reviewed items related to ultrasound of the pelvis, reviewing relevant Medicare data and literature related to the use of ultrasound of the hip and pelvis in paediatric practice.

After reviewing this data, the Committee noted that:

- Item 55816 (ultrasound of the hip or groin) – Although the service is appropriate, it is a candidate for the Choosing Wisely Australia list and/or DMCC consideration to ensure more appropriate requesting; if the hernia is clinically detectable then there is no need to request imaging; instead the patient should be referred to a surgeon.
- Item 55820 (paediatric hip ultrasound for dysplasia) – It is difficult to consistently and accurately identify hip dysplasia with physical examination so ultrasound is useful given the potential severity of the condition and implications if not identified. The use of ultrasound has likely resulted in reduced use of paediatric pelvic x-ray (a favourable outcome).
- Items 55825 and 55826 (ultrasound buttock or thigh) – These items are used for several conditions including hamstring injuries, bursitis and tendonitis and remain clinically relevant.

The Committee considered the appropriateness of item 55816 (hip or groin ultrasound) for the diagnosis and monitoring of inguinal hernia. They agreed that physical examination should be used to identify inguinal hernia clinically without necessitating imaging. The Committee also agreed that this is a candidate for the Choosing Wisely Australia list.

After giving consideration to the clinical utility and Medicare usage data relating to each item, the Committee decided not to make any changes to ultrasound of the pelvis MBS items.

CT and MRI of the spine (items 56219 to 56221, 56223 to 56240, 56259, 56409, 56412, 56449, 56452, 57201, 57247 and 63554 to 63558)

CT scanning of the spine includes the various regions of the spine – cervical, thoracic, lumbar and sacrococcygeal. CT scanning of the spine can provide more detailed information about bone and soft tissue structures than standard x-rays of the spine. Therefore, this can provide more information related 63473to injuries, infections, masses and other pathology.

Choosing Wisely Australia recommendations relating to spinal imaging

As a component of their discussion on CT of the spine, the Committee discussed recommendations made by the RANZCR and the ACEM included within the Choosing Wisely Australia recommendations on diagnostic imaging. Specifically, they discussed the recommendation below (2-4):

Don't request imaging of the cervical spine in trauma patients, unless indicated by a validated clinical decision rule. *Cervical spine imaging of every trauma patient is costly and results in significant radiation exposure to a large number of patients, very few of whom will have a spinal column injury. Clinical decision rules have been developed that identify patients who can safely be managed without imaging. These rules include the Canadian C-Spine rule or Nexus Low Risk Criteria. The Canadian C-Spine Rule provides higher specificity and lower imaging requirements and should be used if possible.*

The Committee reviewed the standard Medicare data related to MBS items for CT of the cervical spine (Table 19, below) and observed their change in service volume over the three year period from 2013/14 to 2015/16.

Table 19: Service volume for MBS items for CT of the spine from 2013/14 to 2015/16.

Item number	Item descriptor	Number of Services 2013/14	Number of Services 2014/15	Number of Services 2015/16	Total Number of Services
56220	COMPUTED TOMOGRAPHY - scan of spine, cervical region, without intravenous contrast medium, payable once only, whether 1 or more attendances are required to complete the service (R) (K) (Anaes.)	112,975	115,095	110,431	338,501
56224	COMPUTED TOMOGRAPHY - scan of spine, cervical region, with intravenous contrast medium and with any scans of the cervical region of the spine prior to	849	886	739	2,474

	intravenous contrast injection when undertaken; only one benefit payable whether 1 or more attendances are required to complete the service (R) (K) (Anaes.)				

As a component of this review, the Committee considered the appropriateness of three-region CT scans of the spine (item 56237). Even though this service is associated with significant exposure to radiation, the Committee advised this service may be appropriate for patients for whom MRI is inappropriate (e.g. where the patient has metal in their body). However, radiation exposure from multi-region imaging remains of concern.

The Committee reviewed those items relating to MRI of the spine. In reviewing these items, the Committee noted the following Medicare service data (Table 20, below):

Table 20: Service volume of GP-requested MRI items over three years 2013/14 to 2015/16.

Item number	Item descriptor	Number of Services 2013/14	Number of Services 2014/15	Number of Services 2015/16	Total Number of Services
63554	MRI - Referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of spine for a patient 16 years or older for suspected: - cervical radiculopathy (R) (Contrast) (Anaes.)	24,104	47,828	54,409	126,341
63555	MRI - Referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of spine for a patient 16 years or older for suspected: - cervical radiculopathy (R) (NK) (Contrast) (Anaes.)	334	245	70	649
63557	MRI - Referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of spine for a patient 16 years or older for suspected: - cervical spine trauma (R) (Contrast) (Anaes.)	2,873	4,304	3,943	11,120
63558	MRI - Referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of spine for a patient 16 years or older for suspected: - cervical spine trauma (R) (NK) (Contrast) (Anaes.)	34	13	7	54

In addition to the standard Medicare service data, the Committee reviewed additional data on co-claiming of items for different imaging modalities of the cervical spine (CT, x-ray and MRI). The Committee agreed the co-claiming data for cervical spine items did not indicate inappropriate use.

The Committee discussed the fact that patients with contraindication to MRI might account for a small number of CT scans of the spine. The Committee discussed data on GP-requesting of MRI and co-claiming of cervical spine MRI items with specialist consultations. The Committee questioned whether GP-requesting of cervical spine MRI was connected with the low number of claims for specialist consultations as GPs were able to rule out serious cervical spine pathology in a significant number of patients which avoided the need to refer to a specialist.

The Committee noted data on the co-claiming of consultations with cervical spine imaging which indicated 30 per cent of patients who had a cervical spine MRI, also claimed a specialist consultation within 12 weeks (Table 21, below).

Table 21: Items 63554 or 63557 (GP-requested cervical spine MRI) with co-claiming of items 104 (initial specialist consultation) or 6007 (professional attendance by a specialist neurosurgeon) within 84 days, 2015/16.

Trigger Combination	Co-Claimed Combination	Episodes %	Patients	Trigger Services	Co-Claimed Services	Services
63554	TOTAL	100.00	53,915	54,349	18,759	73,108
63554	None	72.88	39,415	39,606	-	39,606
63554	00104	18.30	9,898	9,945	12,123	22,068
63554	06007	11.70	6,339	6,363	6,636	12,999
63557	TOTAL	100.00	3,909	3,926	1,037	4,963
63557	None	78.29	3,067	3,074	-	3,074
63557	00104	14.62	573	574	671	1,245
63557	06007	8.99	352	353	366	719

However, the Committee noted this data does not indicate why patients saw specialist or the speciality of the consulting clinician. They agreed the inclusion of GP-requested item may have addressed an unmet need for imaging. The lack of co-claiming suggests GPs are making careful selections between MRI and CT for spine imaging.

The Committee noted the number of services of CT of the spine had decreased since the introduction of MRI but this was not in line with expectations. The Committee agreed they could not identify a definite reason for CT numbers not decreasing further but they agreed the data indicates it is not due to co-claiming with MRI.

The Committee discussed the current item descriptor for cervical spine MRI. Cervical spine MRI is only currently available for two indications – trauma or radiculopathy. They noted that requesting for indications other than these (e.g. facet joint pathology which would warrant a CT rather than an MRI) may be responsible for the persistence of a high number of services for cervical spine CT. The Committee discussed that some types of pathology would be better investigated with single-photon emission computed tomography (SPECT) or CT rather than MRI.

The Committee agreed there does not appear to be an issue with requesting of MRI, but rather the issue is with persistent ordering of CTs, even with the availability of MRI. They acknowledged that Medicare data will not necessarily be able to suggest why this is the case. The Committee discussed the appropriate tests for various cervical spine problems and listed instances in which CT would be preferred over MRI. They agreed that clinical decision support would be beneficial. While they agreed some of the requesting of cervical spine CT may be inappropriate, the unexplained growth in CT spine items would need to be investigated outside of the Committee.

Although the Committee did not seek to make any recommendations to change current items for CT or MRI of the spine or pelvis, it made one recommendation around GP requesting practices for cervical spine CT.

4.2.1 Recommendation 5: The Department to facilitate primary care research into GP requesting practices for CT of the cervical spine.

The Committee recommended that the Department facilitate primary care research into requesting practices for CT of the cervical spine by GPs.

4.2.2 Rationale 5:

The Committee raised the question of why the introduction of GP-requested spinal MRI in November 2013, hasn't resulted in a greater reduction in the requesting of CT scans. As shown in the data, there has not been a significant reduction in the number of cervical spine CT scans since 2013 when the new MRI items were introduced. The Committee agreed primary care research is needed to answer this question.

The Committee also reviewed MBS items relating to CT of the pelvis. The Committee discussed the service data for these items as well as the state-by-state breakdown of services (Table 22, below).

Table 22: Services for CT of the pelvis (item 56412) by patient age and location, 2015/16.

Patient age	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	Total
0-4	0	0	0	0	0	0	0	0	0

5-14	np	0	8	0	np	0	0	0	13
15-24	38	34	51	np	11	np	np	0	143
25-34	137	77	121	13	24	np	np	np	379
35-44	290	156	341	43	28	13	11	11	893
45-54	537	333	678	78	51	13	8	np	1,702
55-64	713	553	1,104	130	48	17	6	7	2,578
65-74	1,049	829	1,613	134	73	13	15	9	3,735
75-84	630	522	918	115	35	15	np	6	2,246
>=85	159	168	194	22	11	np	np	np	559
Unknown	0	0	0	0	0	0	0	0	0
Total	3,557	2,672	5,028	540	282	78	51	40	12,248

np – not for publishing due to low service volumes.

The Committee discussed data showing increasing utilisation of item 56412 (CT of the pelvis). Additional data was provided to the Committee on the proportion of services for CT pelvis with contrast (item 6412) and without contrast (item 56409) requested by GPs and specialists, including a breakdown of services coming from each specialty area. The Committee noted that for CT pelvis with contrast, 83 per cent of requests were from specialists and 17 per cent were from GPs. They noted the highest number of requests came from medical oncologists (42 per cent of all specialist requests) followed by general surgery (11 per cent). For CT pelvis without contrast, the Committee noted a higher proportion of requests from GPs (53 per cent) with the highest number of specialist requests from orthopaedic surgery (15 per cent) followed by medical oncology (8 per cent).

The Committee discussed that this data and agreed that, for CT pelvis with contrast, the high number of service requests by oncologists was likely for patients with diagnosed or suspected cancer which indicates appropriate use of this item as contrast CT would be the appropriate investigation when looking for a pelvic mass. For CT pelvis without contrast, the high number of service requests from orthopaedic surgeons is likely for the investigation of pelvic fractures which the Committee agreed was also indicative of appropriate use. The Committee discussed the probable use of non-contrast CT for patients with a contraindication to contrast and in cancer patients with sclerotic bony metastases.

After considering all of the above information, the Committee did not recommend any changes to items relating to CT of the pelvis. Details of the Committee's deliberations regarding services for MRI of the pelvis are provided in Sections 4.4 and 4.7.

4.3 Imaging of the upper and lower limbs

The Committee reviewed items related to imaging of the upper and lower limbs. Advice regarding these items was provided to the Committee by the Upper and Lower Limb Working Group.

In reviewing these MBS items, the Committee acknowledged its previous recommendations on imaging of the knee, detailed in the Third Report from the Diagnostic Imaging Clinical Committee – Knee Imaging. These recommendations were developed based on recommendations made by the Knee Imaging Working Group (KIWG).

A summary of the previous recommendations is given below.

MRI of the knee – The KIWG recommended the introduction of an additional age cut-off for knee MRI referrals to provide separate descriptors and/or restrictions for patients under and over 50 years of age whom a GP may consider appropriate for knee MRI. The KIWG recommended GP requesting of MRI of the knee for patients ≥ 50 years of age be removed but specialist requesting be retained for any age group

The KIWG also recommended the requirement for patients under 16 years old to undergo x-ray before MRI be removed and not mandated for any age group, to reduce radiation exposure and associated costs. The KIWG also recommended restricting the number of GP-requested MRIs to three per patient per annum.

X-ray of the knee – The KIWG recommended MBS items for x-ray of the knee be separated from the current x-ray items, which encompass foot, ankle, leg, knee or femur. This is to allow for utilisation monitoring of the number of services performed specifically for the knee and to observe changes in the patterns of requesting following the introduction of GP-requested knee MRI. The Committee endorsed this recommendation noting the benefit of improved data collection associated with separating x-ray of the knee from other lower leg x-ray items.

CT of the knee – The KIWG recommended MBS items for CT of the knee be separated from the current CT items which encompass all extremities. This is to allow for utilisation monitoring. The Committee endorsed this recommendation noting the benefit of improved

data collection associated with separating CT of the knee from the current CT extremities items.

A detailed explanation of the Government's response to the recommendations can be found on the Department of Health website.

After reviewing these items, the Committee made three recommendations relating to changes to the current items for imaging of the upper and lower limbs. The recommendations are presented by imaging modality group.

X-ray of the upper and lower limbs (items 57506 to 57527, 57700 to 57712)

X-rays of the humerus, forearm, femur, leg, hand, foot, ankle or shoulder may be done as a first-line assessment for injuries such as fractures. X-rays can also show evidence of other injuries or conditions, such as infection, arthritis, tendinitis, bone spurs, foreign bodies, tumours, or birth defects. X-rays may also be used to observe bone growth and development in children.

The Committee reviewed Medicare data relating to x-ray of the limbs (Table 23, below). The Committee's recommendation relating to these items and its accompanying rationale is detailed below.

Table 23: Service data for MBS items for x-ray of the limbs, 2016/17.

Item	Long item descriptor	Schedule Fee	Services 2016/17	Benefits 2016/17	5-year benefits CAGR
57506	X-RAY HAND, WRIST, FOREARM, ELBOW OR HUMERUS (NR)	$29.75	15,577	$422,666.40	-1%
57509	X-RAY HAND, WRIST, FOREARM, ELBOW OR HUMERUS (R)	$39.75	952,883	$34,267,198	3%
57512	X-RAY HAND AND WRIST OR HAND, WRIST AND FOREARM OR FOREARM AND ELBOW OR ELBOW AND HUMERUS (NR)	$40.50	1,974	$72,821.70	-7%
57515	X-RAY HAND AND WRIST OR HAND, WRIST AND FOREARM OR FOREARM AND ELBOW OR ELBOW AND HUMERUS (R)	$54.00	106,614	$5,284,712	3%
57521	X-RAY FOOT, ANKLE, LEG, KNEE OR FEMUR (R)	$43.40	1,974,433	$76,820,530	4%
57527	X-RAY FOOT AND ANKLE, OR ANKLE AND LEG, OR LEG AND KNEE, OR KNEE AND FEMUR (R)	$65.75	202,691	$12,122,210	6%
57700	X-RAY SHOULDER OR SCAPULA (NR)	$40.50	7,678	$276,036.35	-2%
57703	X-RAY SHOULDER OR SCAPULA (R)	$54.00	447,573	$21,261,022	3%
57712	HIP JOINT X-RAY (R)	$47.15	714,815	$28,622,794	2%
57706	X-RAY CLAVICLE (NR)	$32.50	1,110	$31,842	-2.5%
57709	X-RAY CLAVICLE (R)	$43.40	40,998	$1,590,692	4%

After reviewing the MBS x-ray items listed in Table 23, the Committee recommended no change to these items.

However, the Committee acknowledged a previous recommendation made by the KIWG to separate the MBS items for the knee from the current x-ray items, which encompass foot, ankle, leg, knee or femur. This recommendation, the Committee agreed, remains appropriate and negates the need to provide an additional recommendation on this matter.

The Committee reviewed the data relating to these items and considered the items' uses, clinical indications and accompanying item descriptors. They decided not to make any changes to these items.

The Committee did note that x-ray is generally undertaken as a first-line assessment of upper and lower limb injuries. This can lead to further imaging being undertaken such ultrasound, CT and MRI (especially when the results of the x-ray are equivocal).

However, additional imaging does not change the clinical outcome for most patients and are often requested so that patients have certainty in relation to their diagnosis. As such, further

investigation into the use of appropriate use criteria should be undertaken by the Department, as it is likely that some diagnostic radiology services are being inappropriately requested.

Ultrasound of the upper and lower limbs (items 55800 to 55843)

Musculoskeletal ultrasound imaging uses sound waves to produce images of muscles, tendons, ligaments and joints of the upper and lower limbs. Musculoskeletal ultrasound is used to help diagnose sprains, strains, tears, and other soft tissue conditions.

The Committee reviewed Medicare data relating to ultrasound of the joints (Table 24, below). Note that some NK items are not shown in the table due to low service volumes. The Committee's recommendation relating to these items and its accompanying rationale are detailed below.

Table 24: Service data for MBS items for ultrasound of the joints (excluding knee), 2016/17.

Item	Long item descriptor	Schedule fee	Services FY 2016/17	Benefits FY 2016/17	5-year benefits CAGR
55800	HAND OR WRIST, 1 or both sides, ultrasound scan – referred	$109.10	206,538	$21,022,706	10%
55802	HAND OR WRIST, 1 or both sides, ultrasound scan – non-referred	$37.85	2,819	$99,011.25	19%
55804	FOREARM OR ELBOW, 1 or both sides, ultrasound scan of – referred	$109.10	96,760	$9,832,730	9%
55806	FOREARM OR ELBOW, 1 or both sides, ultrasound scan of – non-referred	$37.85	1,175	$40,542.25	17%
55808	SHOULDER OR UPPER ARM, 1 or both sides, ultrasound scan	$109.10	497,895	$50,565,795	5%
55816	HIP OR GROIN, 1 or both sides, ultrasound scan	$109.10	267,779	$27,110,282	9%
55824	BUTTOCK OR THIGH, 1 or both sides, ultrasound scan of	$109.10	37,672	$3,799,848	8%
55832	LOWER LEG, 1 or both sides, ultrasound scan of – referred	$109.10	38,550	$3,900,174	8%
55834	LOWER LEG, 1 or both sides, ultrasound scan of – non-referred	$37.85	1,029	$93,580.65	11%
55836	ANKLE OR HIND FOOT, 1 or both sides, ultrasound scan – referred	$109.10	177,626	$18,061,999	10%
55840	MID FOOT OR FORE FOOT, 1 or both sides, ultrasound scan – referred	$109.10	132,088	$13,417,699	10%
55842	MID FOOT OR FORE FOOT, 1 or both sides, ultrasound scan – non-referred	$37.85	1374	$45,471	25%

The Committee reviewed the data relating to these items and considered the items' uses, clinical indications and accompanying item descriptors. The Committee decided not to make any changes to these items.

4.3.1 Recommendation 6*:* The Department to facilitate formal research into the use of upper and lower limb ultrasound services, giving consideration to the development of clinical decision support tools for requesting clinicians.

The Committee recommended the Department commission formal research into the use of ultrasound in the investigation of upper and lower limb problems. In particular, the

Committee recommended possibility of developing decision support tools for requesting clinicians be investigated.

4.3.2 Rationale 6:

The Committee noted increased utilisation rates of upper and lower limb ultrasound and recommended the Department commission formal research into the use of ultrasound services.

Data provided to the Committee highlighted a large variation in the service volumes across the states and territories and an increase in the use of ultrasound services.

In the 5 years since 30 June 2012, there has been an increase in services of around 10%. The Committee noted partial reasoning for an increase in ultrasound usage could be linked to the following:

- GP concerns surrounding radiation. The working group discussed that GPs may be more likely to send a patient for an ultrasound as opposed to an x-ray or CT as there is no radiation dose to the patient.
- Increased utility in the diagnosis of musculoskeletal conditions. Ultrasound is useful for the investigation of structures surrounding the joints and soft tissue disorders.
- Patient expectations that they will receive a diagnosis, even when the diagnosis will not change patient management. This leads to referrals for unnecessary tests.
- Ultrasound being a widely available and relatively inexpensive test for a range of clinical indications.

With evidence of an increase in service volume, the Committee noted that referrers are potentially referring patients for inappropriate imaging tests. This could be due to a lack of knowledge regarding the appropriate use of imaging given the clinical indications.

After reviewing the data related to upper and lower limb ultrasound services, the Committee did not recommend any changes to specific items. However, it identified the need to make one broad recommendation related to musculoskeletal ultrasound items.

CT of the upper and lower limbs (items 56619 and 56659)

CT scanning of the extremities includes scans of the shoulder, arm, elbow, wrist, hand, hip, leg, knee, ankle and foot. CT scanning of the extremities uses a thin beam of x-ray and a rapidly moving x-ray tube to acquire data from different angles, which is used to create cross sectional images.

CT scan of the extremities can provide more detailed information about bone and soft tissue structures than standard x-rays of the extremities. Therefore, this can provide more

information related to injuries, infections and masses, and can be used to evaluate patients with pain, swelling, or after trauma. It can also be used to evaluate for healing after surgery and for operative complications and fracture non-union.

The Committee reviewed Medicare data relating to CT scan of the extremities (item 56619) (Table 25, below). The Committee's recommendation relating to this item and its accompanying rationale are detailed below.

Table 25: Standard Medicare data for item 56619 (CT extremities).

Item	Long item descriptor	Schedule Fee	Services 2016/17	Benefits 2016/17	5-year benefits change (CAGR)
56619	COMPUTED TOMOGRAPHY - scan of extremities, 1 or more regions without intravenous contrast medium, payable once only whether 1 or more attendances are required to complete the service	$220	178,891	$36,389,985	6%

4.3.3 Recommendation 7: Split items 56619 and 56659 (CT scan of extremities without contrast) into two separate items for CT of the upper limb and lower limb, excluding knee.

The Committee recommended the current item 56619 (CT of the extremities) be split into two separate items – one for CT of the upper limb and one for CT of the lower limb, excluding knee.

The proposed new item descriptors are outlined below in Table 26, below. The Committee recommended that the following items be added to the MBS. Note these are draft item descriptors only and may be amended prior to implementation.

Table 26: Proposed item descriptors for new items for CT of the upper and lower limb (excluding knee).

Item Number	Item Descriptor
New item 1 XXXXX	COMPUTED TOMOGRAPHY - scan of the upper limb, 1 or more regions without intravenous contrast medium, payable once only whether 1 or more attendances are required to complete the service (Anaes.) Fee: $XXXX
New item 2 XXXXX	COMPUTED TOMOGRAPHY - scan of the lower limb (excluding the knee), 1 or more regions without intravenous contrast medium, payable once only whether 1 or more attendances are required to complete the service (Anaes.) Fee: $XXXX

4.3.4 Rationale 7:

The Committee reviewed the MBS item descriptor for item 56619. It was noted that the terminology used in the descriptor encompasses all joints of the extremities. Therefore, it was not possible for the Committee to identify the region imaged, or the clinical appropriateness of the requesting of the item.

In response, the Committee recommended that two new items be introduced to reflect each of the upper and lower limbs which would allow tracking of data to assess appropriate use in the future.

The Committee noted a previous recommendation had been made by the KIWG (and endorsed by the Committee) to separate CT of the knee from the current CT extremities item. This change has been implemented, effective 1 November 2018. Therefore, the new item for the lower limb should exclude the knee.

The Committee agreed that each item should attract the same rebate if more than one area was scanned so there would be no incentive to scan more than those regions necessary.

The proposed new item descriptors are outlined above in Tables 26. The Committee recommended that the following items be added to the MBS. Note these are draft item descriptors only and may be amended prior to implementation.

MRI of the upper and lower limbs (items 63322 to 63522)

The Committee reviewed Medicare data relating to MRI of the limbs (Table 27, below). The Committee's recommendation relating to these items and its accompanying rationale is detailed below.

Table 277: Service data for MBS items for MRI of the limbs, 2016/17.

Item	Item descriptor	Schedule Fee	Services 2016/17	Benefits 2016/17	5-year benefits CAGR
63322	MRI of the HIP	$403.20	30,331	$11,550,923	6%
63325	MRI of the SHOULDER	$403.20	41,155	$15,904,028	6%
63331	MRI of the ANKLE / FOOT	$403.20	34,410	$12,979,457	6%
63337	MRI of the WRIST	$448.00	18,171	$7,827,469	8%
63340	MRI of the ELBOW	$403.20	4,946	$1,809,695	7%
63516	MRI of the HIP (Patients under 16 years)	$403.20	813	$325,863	9%
63519	MRI of the ELBOW (Patients under 16 years)	$403.20	539	$216,728	17%
63522	MRI of the WRIST (Patients under 16 years)	$448.00	1,715	$764,121	18%

The Committee reviewed the data relating to the eight MRI items of the limb, and considered the items' uses, clinical indications and accompanying item descriptors. The Committee recommended no changes to these items.

4.4 Imaging of the organs of the chest, abdomen and pelvis

The Committee reviewed items related to imaging of the organs of the chest, abdomen and pelvis. Items related to imaging of the chest wall were also included in this review. Following the review of these items, the Committee made two recommendations related to ultrasound of the chest wall. No changes were recommended to items for x-ray, CT or MRI.

Ultrasound of the chest, abdomen and pelvis (items 55023, 55025, 55036 to 55085, 55600 to 55603 and 55812 to 55814)

Ultrasound imaging uses sound waves to produce images of anatomical structures. In the imaging of the chest, abdomen, pelvis, liver and prostate, ultrasound is used to help diagnose a range of pathologies. Ultrasound can be used to image the scrotum, prostate, urinary tract and bladder. It also has a role in the imaging of the chest wall and breasts.

Cross-sectional echography is a technique using ultrasound that can be used to obtain images of various parts of the body, including the musculoskeletal system. It can also be used to guide interventional techniques such as biopsies and injections as part of a surgical procedure.

The Committee made four recommendations to change MBS items relating to ultrasound. Two of the recommendations relate to ultrasound of the breasts (items 55061, 55062 and 55076) and chest wall (items 55812 and 55814). The remaining two recommendations relate to musculoskeletal cross-sectional echography in conjunction with a surgical procedure (items 55848 and 55850).

Table 28, below, shows the standard Medicare service data for MBS ultrasound items relating to imaging of the chest, abdomen and pelvis, including the internal organs associated with these anatomical regions.

Table 28: Medicare service and benefits data for ultrasound items reviewed relating to imaging of the chest, abdomen and pelvis (including liver, prostate, urological and gastrointestinal systems), 2015/16.

Item	Descriptor	Schedule Fee	Services 2015/16	Benefits 2015/16
55036	Abdomen Ultrasound including urinary tract (R)	$111.30	834,133	$86,238,926
55037	Abdomen Ultrasound including urinary tract (NR)	$37.85	5,017	$175,461
55038	Urinary Tract Ultrasound (R)	$109.10	511,412	$51,956,873
55039	Urinary Tract Ultrasound (NR)	$37.85	15,265	$ 524,769
55048	Scrotum Ultrasound (R)	$109.50	116,791	$11,885,184
55049	Scrotum Ultrasound (NR)	$37.85	217	$7,551
55065	Pelvis Ultrasound (R)	$98.25	885,345	$80,750,021
55068	Pelvis Ultrasound (NR)	$35.00	104,825	$3,545,670

Item	Descriptor	Schedule Fee	Services 2015/16	Benefits 2015/16
55084	Urinary Bladder Ultrasound (R)	$98.25	2,991	$232,506
55085	Urinary Bladder Ultrasound (NR)	$34.05	27,564	$861,658
55600	Prostate, bladder base and urethra, ultrasound for management of current prostatic disease (R) (K)	$109.10	4,258	$393,659
55603	Prostate, bladder base and urethra, ultrasound for management of current prostatic disease (R) (K)	$109.10	17,833	$1,307,732
55812	Chest or abdominal wall, 1 or more areas, ultrasound (R)	$109.10	95,194	$9,583,081
55814	Chest or abdominal wall, 1 or more areas, ultrasound (NR)	$37.85	9,793	$301,169
55070	Breast, one, ultrasound scan of (R)	$98.25	148,071	$13,348,133
55076	Breasts, both, ultrasound scan of (R)	$109.10	467,884	$47,348,520
55079	Breasts, both, ultrasound scan of (NR)	$37.85	1,880	$65,737

The Committee reviewed specific data on the number of services of ultrasound items, broken down by state to identify any anomalies.

Table 29, below, shows the number of services for MBS items relating to ultrasound of the chest, abdomen and pelvis per 100,000 population in 2015/16.

Table 29: Number of services per 100,000 population by state for MBS items for chest, abdomen and pelvis ultrasound, 2015/16.

Item	Item Descriptor	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	Total
55036	US abdo (incl urinary tract) (R)	3,680	3,422	3,690	2,561	2,977	2,711	3,035	2,679	3,421
55037	US abdo (incl urinary tract) (NR)	25	43	5	8	3	np	np	Np	21
55038	US urinary tract (R)	2,242	2,205	2,167	2,039	1,510	1,748	1,701	1,470	2,097
55039	US urinary tract (NR)	121	42	13	29	46	100	37	72	63
55048	US scrotum (R)	486	486	497	461	441	452	451	354	479
55049	US scrotum (NR)	0	np	np	np	0	0	0	0	np
55065	US pelvis (R)	3,641	3,960	3,714	3,180	3,343	2,609	3,171	2,693	3,631
55068	US pelvis (NR)	424	357	564	573	247	661	473	79	430
55070	US one breast (R)	533	649	550	958	574	889	578	378	607
55073	US one breast (NR)	15	42	13	51	4	np	np	np	22
55076	US both breasts (R)	2,517	1,703	2,206	585	1,328	929	1,414	1,066	1,919
55079	US both breasts (NR)	14	10	2	4	0	0	0	0	8
55084	US bladder (R)	10	22	12	8	3	np	5	np	12
55085	US bladder (NR)	126	148	40	220	74	84	5	187	113

55600	US prostate, bladder base, urethra (R)	31	12	6	9	21	0	8	16	17
55603	US prostate, bladder base, urethra (NR)	76	78	54	93	73	110	58	43	73
55812	US chest or abdo wall (R)	409	375	452	398	282	314	358	260	390
55814	US chest or abdo wall (NR)	9	4	np	498	np	np	np	8	40

np – not for publishing due to low service volumes.

The Committee noted the above data. In particular it noted the high number of services of item 55076 (ultrasound of both breasts, referred) in NSW at 2,517 services per 100,000 population compared to 1,919 for all states.

It also noted an extremely high number of services for item 55814 (ultrasound chest or abdominal wall, non-referred) for South Australia at 498 services per 100,000 population compared to an average of 4 per 100,000 for the other states and territories. The Committee noted the fact that this corresponds with a comparatively low number of both breast ultrasounds in South Australia. This, the Committee agreed, indicates inappropriate claiming as it suggests that ultrasound of the chest or abdominal wall may be being performed in place of both breast ultrasound by some providers.

Although breast ultrasound items were also reviewed by the Breast Imaging Working Group (BIWG), the BIWG did not have the benefit of considering this data regarding ultrasound of the chest or abdominal wall. The Committee therefore also reviewed these items giving consideration to this additional data.

After reviewing the data above, the Committee requested additional specific data on the use of item 55814 (ultrasound chest or abdominal wall, non-referred) by patient demographics.

Table 30 shows the number of services for item 55814 (non-referred ultrasound of the chest or abdominal wall) per 100,000 patients (by date of processing) for 2015/16.

Table 30: Number of services per 100,000 patients by state and patient demographics for chest, abdomen and pelvis ultrasound MBS items, 2015/16.

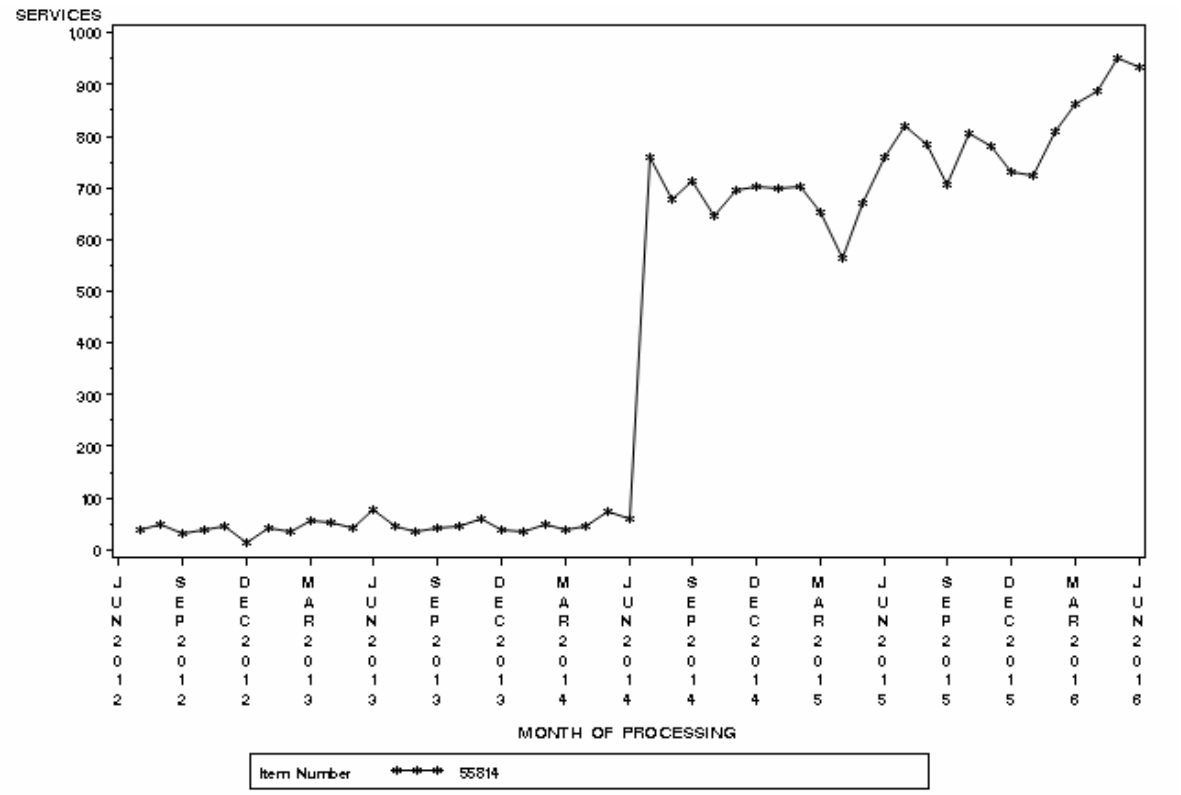
Item 55814 - Ultrasound of the chest or abdominal wall (NR)		Patient State								Average
		NSW	VIC	QLD	SA	WA	TAS	ACT	NT	
Female	0-4	np	np	0	10	0	0	0	0	np
	5-14	np	0	0	31	np	np	np	0	np
	15-24	3	4	4	602	np	0	0	18	45
	25-34	6	4	np	1,196	3	16	0	24	82
	35-44	13	9	3	1,672	5	0	3	11	117
	45-54	17	9	5	1,616	0	8	7	19	125

	55-64	17	10	3	1,039	3	0	0	35	89
	65-74	24	11	3	1,003	Np	7	0	37	93
	75-84	20	7	6	816	4	0	0	0	78
	>=85	7	6	0	338	0	14	0	0	36
	Average	11	6	3	955	np	4	np	16	74
Male	0-4	0	np	0	np	0	0	0	0	0
	5-14	0	0	0	17	0	0	0	0	np
	15-24	np	np	0	37	np	0	0	0	4
	25-34	4	np	np	26	3	0	0	0	4
	35-44	6	np	np	23	3	3	0	0	4
	45-54	11	3	0	25	4	0	0	6	7
	55-64	14	7	np	27	np	6	0	0	9
	65-74	23	np	np	69	np	0	0	0	14
	75-84	17	5	np	141	4	0	0	0	19
	>=85	14	6	3	61	12	0	0	0	14
	Average	8	np	np	35	np	np	0	np	6

np – not for publishing due to low service volume.

In addition to the data presented above, the Committee noted a 165.7 per cent 3-year service change and 94.9 per cent 5-year service change for item 55814, primarily accounted for by a disproportionately large increase in services in South Australia. This growth in service volumes for item 55814, between 2012 and 2016, is shown in Figure 2, below.

Figure 2: Trend in the number of services for item 55814 (ultrasound of the chest or abdominal wall, non-referred) between June 2012 and June 2016.



The Committee noted this data on ultrasound of the chest wall. It was agreed the item descriptors for both the breast and chest wall items could be revised to minimise inappropriate claiming of these items.

The Committee discussed ultrasound of the breasts and considered data on the usage of ultrasound of one breast (item 55070) versus both breasts (item 55076). The Committee discussed the low incremental cost for imaging the second breast (as the fee for both breasts is only slightly higher than that for the single breast item). The Committee agreed that, although the time taken to prepare patient, etc. would be roughly equivalent for one breast as compared to two, the actual ultrasound examination and reporting of image would take twice as long for two breasts as compared to one. It therefore agreed the relatively low additional cost for imaging the second breast is reasonable and did not seek to recommend a change.

The Committee discussed the role of ultrasound in the setting of mastectomy. It agreed there is an important role for ultrasound of the mastectomy site for detecting local disease recurrence. Contemporary scientific evidence supports the role of ultrasound in ongoing breast cancer surveillance following mastectomy (5).

If a patient has had a unilateral mastectomy, the medical practitioner might claim one breast ultrasound and one chest wall which would attract a higher fee than for a patient with two breasts who has both breasts scanned, even though both these scans would take approximately the same amount of time. The Committee discussed the potential for misuse within these items if one breast and one chest wall were claimed to attract a higher fee than the single item for both breasts.

The Committee discussed the impact of various factors which may determine whether ultrasound of one breast or both breasts is selected. It agreed the following considerations may apply:

- Both breasts should undergo ultrasound for the investigation of a clinically detectable lump or in the setting of a positive family history of breast cancer; however, single breast ultrasound would be indicated if the patient is young and has no family history of breast cancer.
- If a patient has a strong family history or risk factors for breast cancer, both breasts will be scanned, even if only one breast ultrasound has been requested.
- Patients with dense breasts are at greater risk of breast cancer but there is less of a role for mammography among these patients, therefore ultrasound is the preferred investigation.

The Committee agreed that claiming the MBS items for one breast ultrasound and one chest wall for a patient with two breasts is inappropriate and discussed possible mechanisms of preventing inappropriate claiming of these items.

The Committee agreed, in-principle, that scanning of one breast and one chest wall scar in a patient who has had a mastectomy should have the same fee as a patient with two breasts. The Committee discussed whether a new item number may be warranted for this purpose. This item, the Committee agreed, could not be performed in association with any other breast ultrasound scan.

At the conclusion of its detailed review of these items, the Committee made two recommendations relating to breast and chest wall ultrasound MBS items.

4.4.1 Recommendation 8: Amend the item descriptor for items 55061, 55062, 55076 and 55076 (both breast ultrasound) to include the indication of "including post-mastectomy surveillance".

The Committee recommends adding the words "*including post-mastectomy surveillance*" to the item descriptor for both breast ultrasound (items 55061, 55062, 55076 and 55079). This

change would serve to clarify that, for the purpose of ultrasound examination of a mastectomy site, the current both breast ultrasound item is appropriate as it is approximately equivalent, in terms of time and effort, to scanning two breasts. In this instance, using the items for one breast ultrasound (55070) and one chest or abdominal wall ultrasound (55812 or 55814) is inappropriate.

4.4.2 Rationale 8:

The Committee agreed that adding the words "*including post-mastectomy surveillance*" to the item descriptor for both breast ultrasound (item 55076) would serve to clarify that, for the purpose of ultrasound examination of a mastectomy site, the both breast ultrasound item is appropriate and should be used. The Committee agreed this would prevent misuse of one breast and chest wall items and would emphasise the value of ultrasound scanning of the surgical site following mastectomy.

4.4.3 Recommendation 9: Amend the item descriptor for items 55814 and 55815 (non-referred ultrasound of the chest or abdominal wall) to include the words "not to be claimed in association with any other breast ultrasound item within the MBS".

The Committee recommends adding the words "*not to be claimed in association with any other breast ultrasound item within the MBS*" to the item descriptor for non-referred ultrasound of the chest or abdominal wall (items 55814 and 55815). This change would ensure that, in the setting of suspected breast pathology, only the breast ultrasound items are used. This would prevent incentivising the claiming of one breast ultrasound and one chest wall ultrasound instead of the both breast ultrasound item.

4.4.4 Rationale 9:

The Committee noted the exorbitantly high number of services provided for ultrasound of the chest or abdominal wall (item 55814) in South Australia (Tables 30 and 31, above). They agreed this should be investigated outside of the Committee.

The Committee also noted that South Australia has the lowest rates (per capita) of both breast ultrasound, the highest rates of one breast ultrasound and by far the highest rates of non-referred chest wall ultrasound. This data, the Committee agreed, indicates incentivised behaviour to claim higher fee items. The Committee recommended adding the words "*not to be claimed in association with any other breast ultrasound item within the MBS*" to the item descriptor for non-referred ultrasound of the chest wall (item 55814) to ensure that it is not claimed in conjunction with one breast ultrasound.

X-Ray of the chest, abdomen and pelvis (items 57715, 58500 to 58527, 58715 to 58723 and 58900 to 58939)

The Committee examined standard Medicare data on services and benefits for items relating to x-ray of the chest, abdomen and pelvis plus whole body x-ray items. Table 31, below, outlines the standard item usage data for x-ray items reviewed.

Table 31: Service and benefits data for MBS items for x-ray of the chest, abdomen and pelvis, 2015/16.

Item	Descriptor	Schedule Fee	Services 2015/16	Benefits 2015/16
57715	X-ray - Pelvic girdle (R)	$60.90	538,503	$29,290,838
58500	X-ray - Chest (lung fields) by direct radiography (NR)	$35.35	5,431	$168,043
58503	X-ray - Chest (lung fields) by direct radiography (R)	$47.15	1,923,545	$79,823,086
58506	X-ray - Chest (lung fields) by direct radiography with fluoroscopic screening (R)	$60.75	5,118	$226,474
58509	X-ray - Thoracic inlet or trachea (R)	$39.75	817	$28,325
58521	X-ray - Left ribs, right ribs or sternum (R)	$43.40	113,492	$4,141,365
58524	X-ray - Left and right ribs, left ribs and sternum, or right ribs and sternum (R)	$56.50	7,777	$406,737
58527	X-ray - Left ribs, right ribs and sternum (R)	$69.40	1,438	$93,249
58715	Antegrade or retrograde pyelography with preparation and contrast, with or without preliminary plain films, 1 side (R)	$151.55	6,113	$683,603
58718	Retrograde cystography or retrograde urethrography with preparation and contrast injection, with or without preliminary plain films (R)	$126.10	4,959	$542,480
58721	Retrograde micturating cystourethrography	$138.25	2,337	$298,073
58900	Plain abdominal only	$35.70	655	$20,580
58903	Plain abdominal only	$47.60	204,399	$8,564,228
58909	Barium or other opaque meal of 1 or more of pharynx, oesophagus, stomach, duodenum	$89.95	60,838	$4,734,474
58912	Barium or other opaque meal of 1 or more of pharynx, oesophagus, stomach, duodenum and follow through to colon	$ 110.25	2,595	$235,232
58915	Barium or other opaque meal, small bowel series only, with or without preliminary plain film (R)	$78.95	1,048	$67,006
58916	Small bowel enema, barium or other opaque study of the small bowel, including duodenal intubation, with or without preliminary plain films (R) (Anaes.)	$138.50	348	$42,015
58921	Opaque enema, with or without air contrast study and with or without preliminary plain films (R)	$135.25	3,866	$464,877

Item	Descriptor	Schedule Fee	Services 2015/16	Benefits 2015/16
58927	Cholegraphy direct with preparation & contrast (R)	$76.45	2,871	$174,634
58933	Cholegraphy, percutaneous transhepatic, and with preparation and contrast injection (R)	$205.60	291	$44,663
58936	Cholegraphy, drip infusion, with preparation and contrast, with or without tomography (R)	$195.95	1,850	$315,494
58939	Defaecogram (R)	$139.30	2,113	$260,815
59718	Vasoepididymography, 1 side (R)	$134.65	1,238	$128,071
58700	X-ray plain renal only (R)	$46.05	15,300	$622,621

The Committee reviewed data relating to x-ray MBS items. The Committee noted the low usage of lymphangiography (item 59754) with only 12 services during the 2015/16 financial year. It discussed whether this low usage indicates the item may be obsolete. The Committee agreed that this test is performed infrequently but does have some clinical utility. The Committee discussed that the low usage of the item may be related to the fact that very few clinicians have the skills to perform it. However, as it remains clinically valid for a limited number of conditions (associated with problems in lymphatic drainage) and, at present, there is no substitute test, the item should not be deleted from the MBS.

The Committee discussed the data regarding the use of skeletal survey (item 58306). Data on services by age and gender indicates highest usage of item 58306 (skeletal survey) in patients older than 60 years. The Committee did not identify any problems with the skeletal survey MBS items and did not recommend any changes.

The Committee discussed whether any of the other items for review might be considered obsolete. It agreed all of the items reviewed remain clinically valid and there is no evidence of problems that require addressing. The Committee therefore did not recommend that any of the items reviewed be removed from the MBS.

After completing its review of x-ray items related to imaging of the chest, abdomen, pelvis and whole body, the Committee decided not to make any recommendations to change these items.

CT of the chest, abdomen and pelvis (items 56101, 56107, 56141, 56147, 56301, 56307, 56401, 56407 to 56412, 56501, 56507, 56553, 56801 and 56807)

The Committee examined standard Medicare data on services and benefits for items relating to CT of the chest, abdomen and pelvis. Table 32, below, outlines the standard item usage data for CT items reviewed.

Table 292: Service and benefits data for MBS items for CT of the chest, abdomen and pelvis, 2015/16.

Item	Descriptor	Schedule Fee	Services 2015/16	Benefits 2015/16	5-year service change % (CAGR)
56107	CT of soft tissues of neck, including larynx, pharynx, upper oesophagus and salivary glands (not associated with cervical spine) - with intravenous contrast medium and with any scans of soft tissues of neck including larynx, pharynx, upper oesophagus and salivary glands (not associated with cervical spine) prior to intravenous contrast injection, when undertaken, not being a service associated with a service to which item 56807 applies (R) (K) (Anaes.)	$340.00	40,426	$12,730,591.55	8%
56301	CT chest, including lungs, mediastinum, chest wall and pleura, without IV contrast, not including a study to exclude coronary artery calcification or image coronary arteries (R) (K) (Anaes.)	$295.00	149,339	$41,056,411	12%
56307	CT chest, including lungs, mediastinum, chest wall and pleura, with IV contrast and with any scans of the chest and abdomen prior to IV contrast injection, not including a study to exclude coronary artery calcification or image coronary arteries (R) (K) (Anaes.)	$400.00	136,835	$50,940,338	7%
56401	CT upper abdomen only (diaphragm to iliac crest) without IV contrast medium (R) (K) (Anaes.)	$250.00	8,348	$1,899,770	3%
56407	CT upper abdomen only (diaphragm to iliac crest) with IV contrast, and with any scans of upper abdomen (diaphragm to iliac crest) prior to IV contrast injection (R) (K) (Anaes.)	$360.00	11,301	$3,723,314	-
56409	CT pelvis only (iliac crest to pubic symphysis) without IV contrast medium (R) (K) (Anaes.)	$250.00	26,405	$5,993,131	12%
56412	CT pelvis only (iliac crest to pubic symphysis) with IV contrast and with any scans of pelvis (iliac crest to pubic symphysis) prior to IV contrast injection (R) (K) (Anaes.)	$360.00	12,248	$3,999,629	24%
56501	CT upper abdomen and pelvis without IV contrast, not for the purposes of virtual colonoscopy (R) (K) (Anaes.)	$385.00	132,274	$46,622,467	7%
56507	CT upper abdomen and pelvis with IV contrast and with any scans of upper abdomen and pelvis prior to IV contrast injection, not for the purposes of virtual colonoscopy (R) (K) (Anaes.)	$480.05	374,385	$164,819,652	6%
56553	CT colon for exclusion or diagnosis of neoplasia in a symptomatic or high risk patient	$520.00	3,983	$1,881,786	-

Item	Descriptor	Schedule Fee	Services 2015/16	Benefits 2015/16	5-year service change % (CAGR)
56801	CT chest, abdomen and pelvis without IV contrast, not including a study performed to exclude coronary artery calcification or image coronary arteries (R) (K) (Anaes.)	$466.55	25,214	$10,829,275	11%
56807	CT chest, abdomen and pelvis with IV contrast and with any scans of chest, abdo and pelvis with or without scans of soft tissue of neck prior to IV contrast injection, not including a study to exclude coronary artery calcification or image coronary arteries (R) (K) (Anaes.)	$560.00	228,419	$119,047,543	9%

After reviewing the above data regarding CT of the chest abdomen and pelvis, the Committee decided not to recommend any changes to these items as they reflect contemporary best practice.

MRI of the chest, abdomen and pelvis (items 63470 to 63744)

Table 33 shows the standard Medicare service and benefits data for those MRI items reviewed relating to the chest, pelvis and abdomen (including liver, prostate, urological, gynaecological and gastrointestinal systems).

Table 303: Service and benefits data for MRI items reviewed, 2015/16.

Item	Descriptor	Schedule fee	Services 2015/16	Benefits 2015/16
63470	MRI where a histological diagnosis of carcinoma of the cervix has been made and (ii) the patient has been diagnosed with cervical cancer at figo stage 1b or greater (R) (Contrast) (Anaes.)	$403.20	394	$154,385
63473	MRI - Pelvis and upper abdomen, in a single examination, for the staging of histologically diagnosed cervical cancer at figo stages 1b or greater (R) (Contrast) (Anaes.)	$627.20	183	$107,804
63476	MRI where a phased array body coil is used and the request for scan identifies that the indication is for the initial staging of rectal cancer (R) (contrast) (Anaes.)	$403.20	2,638	$1,027,994
63479	MRI where:(a) the patient is referred by a specialist or by a consultant physician and (b) the request for scan identifies that (i) a histological diagnosis of carcinoma of the cervix has been made and (ii) the patient has been diagnosed with cervical cancer at figo stage 1b or greater scan of:-	$201.60	np	np

Item	Descriptor	Schedule fee	Services 2015/16	Benefits 2015/16
	pelvis for the staging of histologically diagnosed cervical cancer at figo stages 1b or greater (R) (NK) (contrast) (Anaes.)			
63481	MRI pelvis and upper abdomen, in a single examination, for the staging of histologically diagnosed cervical cancer at figo stages 1b or greater (R) (NK) (contrast) (Anaes.)	$313.60	10	$3,058
63482	MRI scan of pancreas and biliary tree for:- suspected biliary or pancreatic pathology (R) (Anaes.)	$403.20	18,513	$7,071,102
63484	MRI where a phased array body coil is used and the request for scan identifies that the indication is for the initial staging of rectal cancer (including cancer of the rectosigmoid and anorectum).scan of:- pelvis for the initial staging of rectal cancer (R) (NK) (contrast) (Anaes.)	$201.60	43	$8,669
63486	MRI scan of pancreas and biliary tree for:- suspected biliary or pancreatic pathology (R) (NK) (Anaes.) (Anaes.)	$201.60	295	$58,736
63740	MRI small bowel for evaluation of Crohn's disease	$457.20	5,591	$2,465,390
63741	MRI enteroclysis for Crohn's disease	$265.25	621	$159,846
63743	MRI for fistulising perianal Crohn's disease	$403.20	1,123	$436,811

np – not for publishing due to low service volumes.

In reviewing these MRI items, the Committee also considered advice provided by the GCC recommending the descriptor for item number 63470 be amended to include the indication of restaging of diagnosed cervical cancer and other additional indications.

The Committee considered this advice and supported the recommendation from the GCC. It agreed a new item number would need to be considered by the Medical Services Advisory Committee (MSAC) as the indications for the proposed item are substantially different to those for the existing item. The complete recommendation and rationale are detailed in Section 4.7 – MRI.

After considering the data and evidence related to these MRI items for imaging of the chest, abdomen and pelvis, the Committee did not recommend any changes to current MBS items.

4.5 General and whole body imaging (items 55026, 55054, 55844 to 55851, 58300 to 58308, 59103 and 59754)

The Committee reviewed items related to imaging of the whole body and general imaging items. Table 34, below, shows the standard Medicare service data for MBS ultrasound items relating to general and whole body imaging items. Included in these items are those relating to the use of ultrasound to guide a surgical procedure using interventional techniques (items 55026, 55048-51 and 55054).

Table 314: Service and benefits data for ultrasound items relating to general and whole body imaging, 2016/17.

Item	Descriptor	Schedule fee	Services 2016/17	Benefits 2016/17	5 year service change % (CAGR)
55026	Ultrasonic cross-sectional echography, in conjunction with a surgical procedure using interventional techniques (R) (NK)	$54.55	44	$1,281	17%
55054	Ultrasonic cross-sectional echography, with surgical procedure using interventional techniques (R)	$109.10	250,358	$20,495,346	4%
55844	Assessment of a mass associated with the skin or subcutaneous structures - ultrasound scan (R)	$87.35	129,231	$10,453,801	8%
55845	Assessment of a mass associated with the skin or subcutaneous structures – ultrasound scan (R) (NK)	$43.70	11	$310	2%
55846	Assessment of a mass associated with the skin or subcutaneous structures – ultrasound scan (NR)	$37.85	1,054	$36,749	-13%
55847	Assessment of a mass associated with the skin or subcutaneous structure – ultrasound scan (NR)(NK)	$18.95	39	$669	45%
55848	Musculoskeletal cross-sectional echography, in conjunction with a surgical procedure (R)	$109.10	332,442	$28,164,690	17%
55849	Musculoskeletal cross-sectional echography, in conjunction with a surgical procedure (R) (NK)	$54.55	48	$1,349	89%
55850	Musculoskeletal cross-sectional echography, in conjunction with a surgical procedure, inclusive of a diagnostic musculoskeletal ultrasound scan (R)	$152.85	229,498	$28,866,325	9%
55851	Musculoskeletal cross-sectional echography, in conjunction with a surgical procedure (R) (NK)	$76.45	9	$517	25%
57341	COMPUTED TOMOGRAPHY, in conjunction with a surgical procedure using interventional techniques, not being a service associated	$470.00	234,681	$96,586,357.82	11%

Item	Descriptor	Schedule fee	Services 2016/17	Benefits 2016/17	5 year service change % (CAGR)
	with a service to which another item in this table applies (R) (K) (Anaes.)				
58300	X-RAY BONE AGE STUDY (R)	40.10	13,631	$490,029.45	2%
58306	X-ray - Skeletal survey (R)	$89.40	6,054	$497,079	3%
58308	X-ray - Skeletal survey (R) (NK)	$44.70	np	np	-
59103	Localisation of foreign body (R)	$21.30	5,299	$81,679	43%
59712	X-RAY HYSTEROSALPINGOGRAPHY, with or without preliminary plain films and with preparation and contrast injection (R)	$113.70	4,651	$427,833.90	-3%
59739	SINOGRAM OR FISTULOGRAM, 1 or more regions, with or without preliminary plain films and with preparation and contrast injection (R)	$73.75	627	$35,614.90	-3%
59754	Lymphangiography (R)	$219.35	12	$1,911	8%

The Committee noted that the data shown in Table 35 (above) indicates the highest usage among these items was for ultrasonic cross-sectional echography in conjunction with a surgical procedure (items 55054, 55848 and 55850).

Table 35 (below) shows the state-by-state data reviewed on the number of services per 100,000 population for ultrasound MBS items reviewed relating to general and whole body imaging (2016/17). Note some NK items are excluded from this table due to extremely low service volumes.

Table 325: State-by-state data on Medicare services (per 100,000 population) for ultrasound items relating to general and whole body imaging, 2016/17.

		Number of Services per 100,000 Population								
Item	Descriptor	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Average
55026	Ultrasonic cross-sectional echography, in conjunction with a surgical procedure using interventional techniques (R) (NK)	np	np	0.0	0.0	np	0.0	0.0	np	np
55054	Ultrasonic cross-sectional echography, with surgical procedure using interventional techniques (R)	1346.4	896.8	1007.4	913.0	937.9	583.1	380.4	677.4	1,052.9
55844	Assessment of a mass associated with the skin or subcutaneous structures - ultrasound scan (R)	600.0	468.3	624.1	523.6	479.4	455.7	403.2	318.9	543.5
55845	Assessment of a mass associated with the skin or subcutaneous structures – ultrasound scan (R) (NK)	np	0.0	0.0	0.0	0.0	0.0	0.0	np	0.0
55846	Assessment of a mass associated with the skin or subcutaneous structures - ultrasound scan (NR)	2.4	1.9	14.9	1.2	np	np	np	np	4.4
55847	Assessment of a mass associated with the skin or subcutaneous structure - ultrasound scan (NR) (NK)	np	np	0.0	0.0	0.0	0.0	0.0	0.0	np
55848	Musculoskeletal cross-sectional echography, in conjunction with a surgical procedure (R)	1392.3	899.5	1885.4	746.7	2339.6	1089.3	427.4	742.8	1,398.1
55849	Musculoskeletal cross-sectional echography, in conjunction with a surgical procedure (R) (NK)	np	0.0	0.0	0.0	0.0	np	0.0	0.0	np
55850	Musculoskeletal cross-sectional echography, in conjunction with a surgical procedure, inclusive of a diagnostic musculoskeletal ultrasound scan (R)	880.4	842.3	564.5	3325.7	726.9	447.9	451.0	1715.3	965.2
55851	Musculoskeletal cross-sectional echography, in conjunction with a surgical procedure (R) (NK)	np	np	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58306	X-ray - Skeletal survey (R)	33	22	19	37	14	15	17	9	24
58308	X-ray - Skeletal survey (R) (NK)	0	0	0	0	0	0	0	0	0
59103	Localisation of foreign body (R)	3	23	66	11	2	3	3	18	21
59754	Lymphangiography (R)	0	0	0	0	0	0	0	0	0

np – not for publishing due to low service volumes.

The Committee noted that during the 2016/17 FY, there were over 3,300 services performed for item 55850 (musculoskeletal cross-sectional echography, in conjunction with a surgical procedure or interventional technique, inclusive of a diagnostic musculoskeletal ultrasound)

in South Australia compared to a national average of 965 services (Table 36). The Committee noted this figure corresponded with a relatively low number of services for item 55848 (musculoskeletal cross-sectional echography, in conjunction with a surgical procedure or interventional technique) which does not include an additional diagnostic ultrasound. As item 55850 carries a higher Schedule fee than item 55848 ($152.85 compared with $109.10), the Committee felt this deviation in servicing patterns may be indicative of inappropriate claiming.

The Committee considered data relating to certain ultrasound items, including a breakdown of the number of services claimed by each speciality, state-by-state and co-claiming data. Table 36, below, shows the breakdown of specialty groups who performed services for items 55848 and 55950.

Table 336: Breakdown of specialty groups performing services for items 55848 and 55850, 2016/17.

	Item 55848	Item 55850
Specialty group	Musculoskeletal cross-sectional echography, in conjunction with surgical procedure using interventional techniques (R)	Musculoskeletal cross-sectional echography, in conjunction with a surgical procedure using interventional techniques, inclusive of a diagnostic musculoskeletal ultrasound
Internal Medicine	1,309	np
Immunology and Allergy	308	np
Cardiology	9	np
Neurology	6	23
Nuclear Medicine	414	3,188
Paediatric Medicine	687	41
Rehabilitation Medicine	767	9
Rheumatology	399	228
Surgery	1,468	1,074
Diagnostic Radiology	319,711	221,342
Anaesthetics	123	np
Obstetrics and Gynaecology	90	np
Palliative Medicine	758	62
Sport and Exercise Medicine	4,083	1,598
GP	np	35
TOTAL	330,135	227,602

np - not for publishing due to small volume of services

Table 37, below, shows the state-by-state data for number of services performed by diagnostic radiologists for items 55848 and 55850 during the 2016/17 financial year.

Table 37: Number of services of items 55848 and 55850 performed by diagnostic radiologists by state, 2016/17.

Item Number	Item Descriptor	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	OT	Total
Item 55848	Musculoskeletal cross-sectional echography, in conjunction with surgical procedure using interventional techniques (R)	99,820	51,612	88,487	12,302	59,167	4,768	993	2,549	14	319,711
Item 55850	Musculoskeletal cross-sectional echography, in conjunction with a surgical procedure using interventional techniques, inclusive of a diagnostic musculoskeletal ultrasound	63,081	49,418	25,022	55,776	18,576	2,257	1,056	6,154	np	221,342

The Committee reviewed data relating to the co-claiming of musculoskeletal cross-sectional echography items in conjunction with other musculoskeletal ultrasound items. Table 38, below, shows a total of 497,553 services were performed for referred shoulder ultrasound (55808) during 2016/17. Of these, 14,435 (3 per cent) were performed in the 7 days before a 55850 (musculoskeletal cross-sectional echography with intervention inclusive of a diagnostic musculoskeletal ultrasound service).

Table 38: Number of services for a musculoskeletal echography item (55848 or 55850) when a shoulder ultrasound item (55808, 55809, 55810 or 55811) was claimed in the preceding 7 days (excluding same day services), 2016/17.

Total number of services, 2016/17		Number of services in which a shoulder ultrasound item was claimed in the preceding 7 days, 2016/17	
Item	Services	Item	Services
55808	497,553	55808	14,435
55810	4,618	55810	45

The Committee also reviewed state-by-state data on the co-claiming of these items. Table 39, below, shows that a significant proportion (6 per cent average across all states and territories) of claims for item 55850, were co-claimed with an additional shoulder ultrasound

within the 7 days prior. The highest rates of co-claiming were in Victoria (10 per cent) and NSW (9 per cent). Same-day services for all states and territories were less than 0.5 per cent.

Table 39: State-by-state data on co-claiming of item 55850 with a shoulder ultrasound item (items 55808-55811) within 7 days prior or same day as the original service, 2016/17.

Provider State	Co-Claimed Combination	Episodes %	Trigger Services	Co-Claimed Services	Services
AUS	TOTAL	100.00	229,654	29,628	259,282
AUS	1 to 7 days before	6.32	14,383	14,499	28,882
AUS	Same day	0.14	322	315	637
NSW	TOTAL	100.00	65,582	11,468	77,050
NSW	1 to 7 days before	8.58	5,666	5,609	11,275
NSW	Same day	0.18	124	125	249
VIC	TOTAL	100.00	50,282	10,308	60,590
VIC	1 to 7 days before	10.12	4,998	5,118	10,116
VIC	Same day	0.07	38	36	74
QLD	TOTAL	100.00	27,032	2,954	29,986
QLD	1 to 7 days before	5.35	1,423	1,451	2,874
QLD	Same day	0.10	26	26	52
SA	TOTAL	100.00	56,901	2,210	59,111
SA	1 to 7 days before	1.83	1,022	1,029	2,051
SA	Same day	0.14	81	76	157
WA	TOTAL	100.00	18,938	2,380	21,318
WA	1 to 7 days before	6.06	1,143	1,159	2,302
WA	Same day	0.16	32	31	63
TAS	TOTAL	100.00	2,223	20	2,243
TAS	1 to 7 days before	0.23	6	np	11
TAS	Same day	0.23	np	np	10
NT	TOTAL	100.00	986	96	1,082
NT	1 to 7 days before	4.08	40	44	84
NT	Same day	0.41	np	np	8
ACT	TOTAL	100.00	7,710	192	7,902
ACT	1 to 7 days before	1.11	85	84	169
ACT	Same day	0.16	12	12	24

np – not for publishing due to low service volumes.

Table 40, below, shows co-claiming data for the same items when a shoulder ultrasound item was co-claimed within the preceding 56 days (8 weeks).

Table 40: State-by-state data on co-claiming of item 55850 with item 55848 within the 56 days prior or on the same day as the original service, 2016/17.

Provider Location	Co-Claimed Combination	Episodes %	Trigger Services	Co-Claimed Services	Services
AUS	TOTAL	100.00%	229,654	9,626	239,280
AUS	55848 (1 to 56 day before)	1.71%	3,921	4,234	8,155
AUS	55848 (Same day)	0.24%	728	579	1,307
NSW	TOTAL	100.00%	65,582	3,444	69,026
NSW	55848 (1 to 56 day before)	2.35%	1,528	1,683	3,211

NSW	55848 (Same day)	0.06%	41	39	80
VIC	TOTAL	100.00%	50,282	1,954	52,236
VIC	55848 (1 to 56 day before)	1.00%	516	524	1,040
VIC	55848 (Same day)	0.84%	597	453	1,050
QLD	TOTAL	100.00%	27,032	1,650	28,682
QLD	55848 (1 to 56 day before)	2.66%	712	793	1,505
QLD	55848 (Same day)	0.12%	32	32	64
SA	TOTAL	100.00%	56,901	954	57,855
SA	55848 (1 to 56 day before)	0.80%	457	459	916
SA	55848 (Same day)	0.03%	20	18	38
WA	TOTAL	100.00%	18,938	1,206	20,144
WA	55848 (1 to 56 day before)	2.77%	524	584	1,108
WA	55848 (Same day)	0.10%	20	19	39
TAS	TOTAL	100.00%	2,223	84	2,307
TAS	55848 (1 to 56 day before)	1.72%	38	39	77
TAS	55848 (Same day)	0.14%	np	np	6
NT	TOTAL	100.00%	986	34	1,020
NT	55848 (1 to 56 day before)	1.12%	11	12	23
NT	55848 (Same day)	0.51%	np	np	10
ACT	TOTAL	100.00%	7,710	300	8,010
ACT	55848 (1 to 56 day before)	1.74%	135	140	275
ACT	55848 (Same day)	0.13%	10	10	20

The Committee discussed the usage of items 55848 and 55850 (musculoskeletal cross-sectional echography in conjunction with a surgical procedure) with specific data on these items including a breakdown in the specialty groups performing these services, state-by-state data on the number of services of each item performed by radiologists and co-claiming of the two musculoskeletal cross-sectional echography items together and with shoulder ultrasound in the preceding eight weeks.

After reviewing all of the available data, the Committee agreed there is evidence to suggest there may be inappropriate claiming of items 55848 and 55850. The Committee discussed the fact that state-by-state data indicates high usage of item 55850 (musculoskeletal cross-sectional echography with additional musculoskeletal ultrasound) in South Australia – more than three times the average for all states and territories – and comparatively low usage of item 55848 (musculoskeletal cross-sectional echography item without additional musculoskeletal ultrasound) which attracts a lower fee ($109.10 compared with $152.85 for item 55850). The benefits paid per capita were highest for this item in South Australia at $4.32 compared with an average of $1.21 across all states and territories.

The Committee agreed there may be some instances in which a diagnostic musculoskeletal ultrasound would not yet have been performed when the patient presents for the interventional procedure (and so it would have to be performed at the same time).

However, the Committee agreed this occurrence would be uncommon. The Committee suggested there may be some benefit from the addition of an explanatory note stating the musculoskeletal cross-sectional echography items can't be claimed within a certain number of days of another musculoskeletal ultrasound. However, no recommendation was made regarding this given the small proportion of episodes in which this might be applicable.

The Committee considered whether the item descriptors for items 55848 and 55850 should be revised to prevent inappropriate claiming of the higher fee item (55850).

Item 55850 currently carries the following item descriptor:

MUSCULOSKELETAL CROSS-SECTIONAL ECHOGRAPHY, in conjunction with a surgical procedure using interventional techniques, inclusive of a diagnostic musculoskeletal ultrasound service, where:

a) the referring practitioner has indicated on a referral for a musculoskeletal ultrasound that a ultrasound guided intervention be performed if clinically indicated;

b) the service is not performed in conjunction with items 55054, or 55800 to 55848, and

c) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R)

The Committee discussed possible strategies to prevent inappropriate claiming of these items. These included:

- Reducing the fee for item 55850 to match that of 55848.
- The creation of a separate item number specifically for joint injections (and another item for image-guidance) and abolition of 55850.
- Adding a requirement for a diagnostic musculoskeletal ultrasound and interventional procedure (biopsy or injection) to be performed on the same day rather than asking the patient to come on two separate days.

However, the Committee raised the issue of inadequate remuneration if diagnostic ultrasound and joint injection were performed on the same day which would create a perverse incentive for clinicians to have patients come back on another day.

The Committee discussed a possible requirement, for claiming of item 55850 to occur, that a reasonably comprehensive diagnostic musculoskeletal ultrasound report to be provided on each occasion the item is claimed. The report, the Committee agreed, would need to be equivalent to that provided for a stand-alone study.

The Committee observed state-by-state data on items 55846 (ultrasonic assessment of mass of skin/subcutaneous structures – non-referred) and 59103 (localisation of foreign body) which indicates wide variability in usage in different parts of Australia. However, it did not identify evidence of inappropriate use of the item.

At the conclusion of its detailed review of these items, the Committee agreed the majority of items reviewed reflect current best practice and did not seek to recommend changes to the items. However, it made two recommendations relating to musculoskeletal cross-sectional echography ultrasound MBS items.

4.5.1 Recommendation 10: Amend the item descriptor for items 55850 and 55851 (musculoskeletal cross-sectional echography in conjunction with a surgical procedure using interventional techniques, inclusive of a diagnostic musculoskeletal ultrasound service) to state that a complete diagnostic musculoskeletal ultrasound report must be produced for the musculoskeletal ultrasound component of the item, each time the service is provided.

The Committee recommends that the item descriptor for items 55850 and 55851 be amended to state that each time the service is provided, a complete diagnostic musculoskeletal ultrasound report must be produced for the musculoskeletal ultrasound component of the item. This report would need to be the equivalent of that produced for a stand-alone musculoskeletal ultrasound.

4.5.2 Rationale 10:

After discussing the advantages and disadvantages of possible approaches to preventing inappropriate claiming of item 55850 and its NK equivalent, 55851, the Committee agreed that the best option would be for the requirement of a complete diagnostic imaging report to be added to the descriptor for these items. This, it was agreed, would ensure this item is not inappropriately claimed in instances where item 55848 or its NK equivalent, 55849, would be more suitable. The Committee agreed that this change should be monitored on an ongoing basis.

4.5.3 Recommendation 11: Amend the item descriptors for items 55848 and 55849 (musculoskeletal cross-sectional echography in conjunction with a surgical procedure using interventional techniques) and 55850 and 55851 (musculoskeletal cross-sectional echography in conjunction with a surgical procedure using interventional techniques, inclusive of a diagnostic musculoskeletal ultrasound service) so that the term “echography” is

replaced with "ultrasound" (for items 55848 and 55849) and "diagnostic ultrasound" (for items 55850 and 55851).

The Committee recommends that the item descriptors for these items be changed so that the term "echography" is replaced with "ultrasound" and "diagnostic ultrasound" respectively.

4.5.4 Rationale 11:

The Committee discussed the term "echography", currently used in the item descriptors for items 55848, 55849, 55850 and 55851, and agreed it is an outdated term. In line with the goal of modernisation of the MBS, the Committee agreed the term "diagnostic ultrasound" would be preferred as a more contemporary equivalent. As items 55848 and 55849 do not include a diagnostic ultrasound component, this should be changed to simply, "ultrasound".

4.6 Obstetric imaging (items 55065 and 55700 to 55775)

The Committee reviewed items related to diagnostic imaging in obstetrics, including pregnancy-related ultrasounds items (55700 to 55775) and one pelvic ultrasound item (55065).

These items were initially reviewed by the Pregnancy Ultrasound Subcommittee (the Subcommittee) of the ObCC which subsequently made recommendations to the Committee. Giving consideration to these recommendations from the ObCC, the Committee conducted its own review of the items before ultimately making recommendations to the Taskforce.

This report outlines the recommendations of both the Committee and the ObCC, based on the preliminary recommendations made by the Subcommittee.

The following MBS item groups were identified for review:

- Pregnancy-related ultrasound items 55700 - 55775 (49 items)
- Pelvic ultrasound item (1 item)

Structure of pregnancy ultrasound items ultrasound items

There are numerous pregnancy ultrasound items depending on pregnancy gestation, who provides the service, whether the service is referred by a medical practitioner and who referred it. Generally, Medicare-funded ultrasound services can only be claimed by a medical practitioner.

Referred and non-referred services

Those items marked with an (R) must be performed under the professional supervision of a specialist or consultant physician in the practice of his or her speciality (for example, obstetrician/radiologist), who is available to monitor and influence the diagnostic quality of the examination and, if necessary, attend the patient personally. These items are usually claimed by the specialist.

In addition to this, the practice at which the diagnostic imaging services are performed must be accredited under the Diagnostic Imaging Accreditation Scheme (DIAS). In order to claim pregnancy ultrasound the practice must be specifically accredited to provide ultrasound services.

Capital sensitivity measure

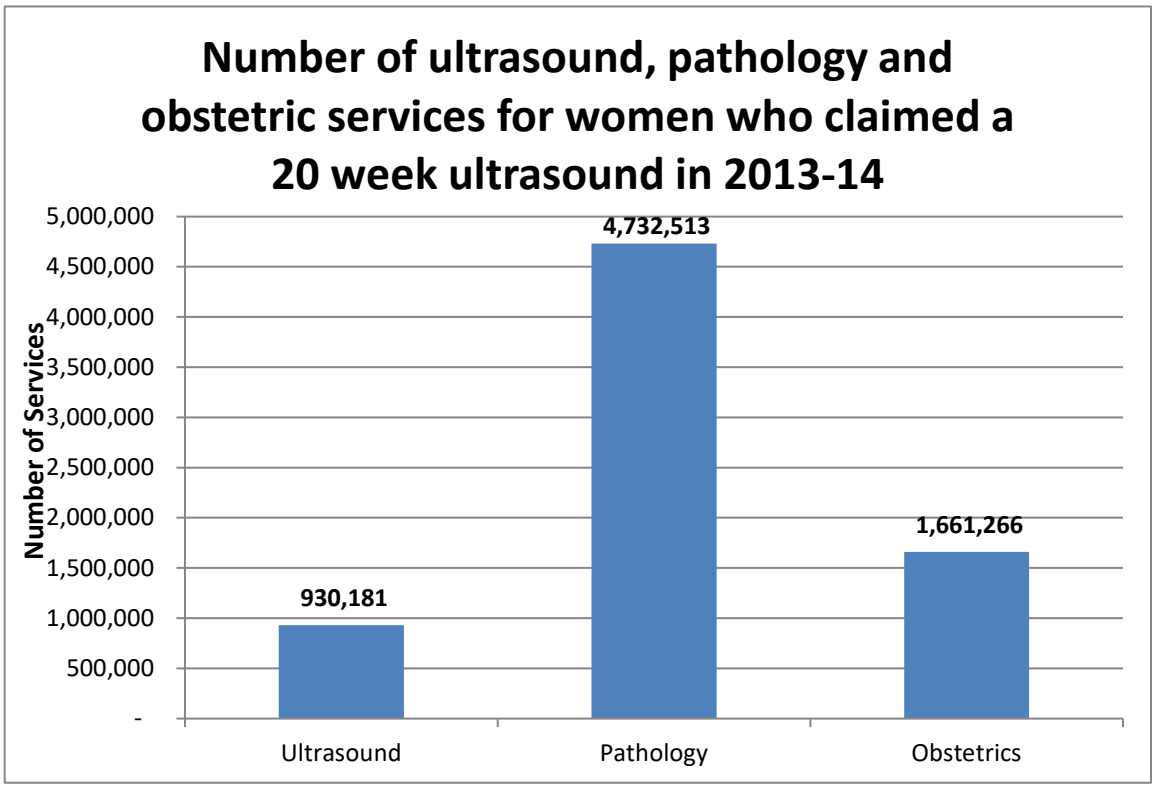
All items have two different schedule fees: K items (100 per cent of the MBS fee) are for diagnostic imaging services provided on newer or upgraded equipment and NK items are approximately 50 percent of the MBS fee for services provided on aged equipment.

Where a piece of ultrasound equipment is older than 10 years (15 years if it has been upgraded), providers must claim the NK item for services performed on that piece of equipment. This measure intended to improve the quality of diagnostic imaging services by encouraging providers to upgrade and replace aged equipment as appropriate.

MBS funding of obstetric, ultrasound and pathology services

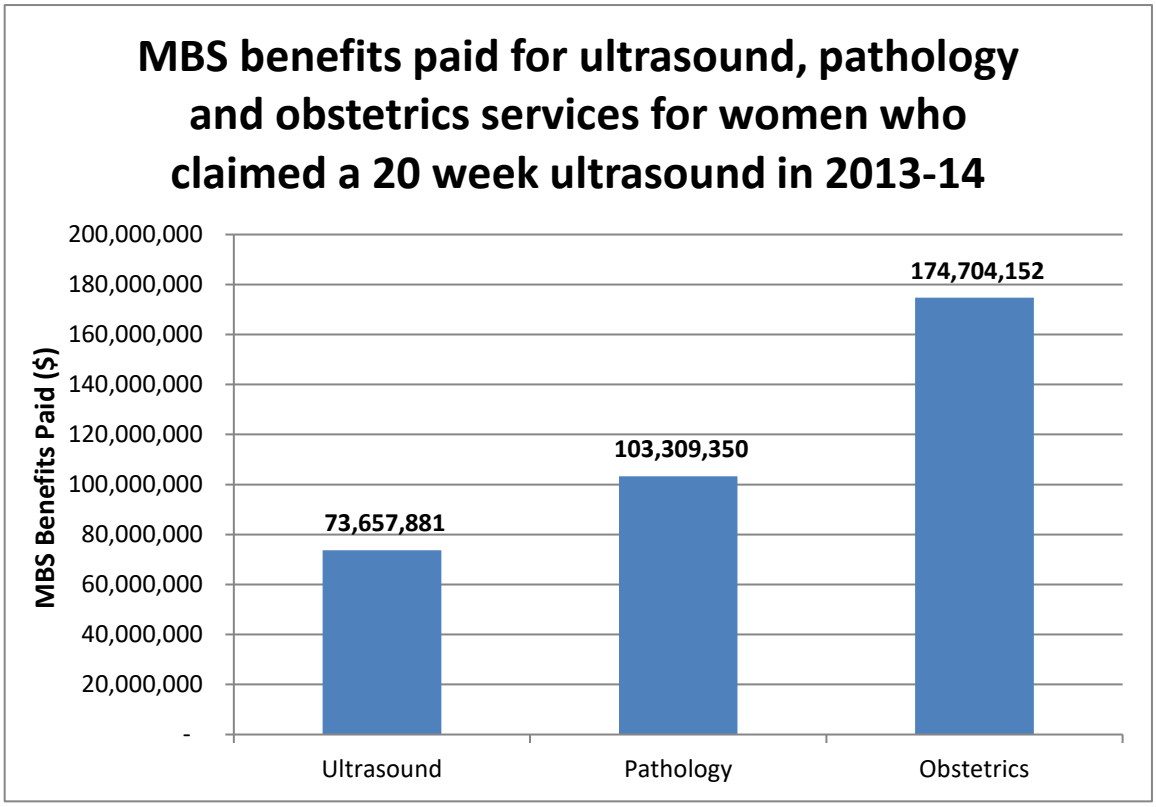
Medicare data indicates that women who claimed a 20 week ultrasound service in 2013/14, also claimed over 4.5 million pathology services (not all pregnancy-related), over 1.5 million obstetrics services and just under 1 million pregnancy ultrasound services. This is shown in Figure 3, below.

Figure 3: Number of pregnancy ultrasound, pathology and obstetric services for women who claimed a 20 week ultrasound, 2013/14.



During the 2013/14 financial year, over $170 million in MBS benefits were paid for obstetric services, in addition to over $100 million for pathology services and over $70 million for pregnancy ultrasound services. This is shown in Figure 4, below.

Figure 4: MBS benefits paid for pregnancy ultrasound, pathology and obstetric services for women who claimed a 20 week ultrasound, 2013/14



Review of obstetric imaging

The ObCC reviewed and made recommendations on pregnancy-related and pelvis ultrasound items (55700 to 55775) for the consideration of the Committee. Recommendations made by the ObCC were developed giving consideration to preliminary recommendations made by the Subcommittee, operating under the ObCC.

The Subcommittee, the ObCC and the Committee reviewed Medicare data on the use of ultrasound in pregnancy. A summary of the complete data set reviewed is given at Appendix B.

At the conclusion of its review of MBS items relating to obstetric imaging, the Committee agreed upon six recommendations, developed after considering the advice of the ObCC.

Each recommendation from the ObCC, the subsequent recommendation from the Committee and the rationale for each recommendation is shown below.

Tables 41 and 42 (below) show those items reviewed in making this recommendation along with their corresponding MBS fee, number of services and value of benefits paid (2014/15).

Table 41: Service and benefits data for pregnancy ultrasounds <12 weeks gestation 2014/15.

Item	Item Descriptor	Schedule Fee	Services	Benefits
55700	Pregnancy ultrasound, < 12 weeks, referred by doctor or midwife	$60	302,723	$16,805,220
55701	Pregnancy ultrasound, < 12 weeks, referred by doctor, old machine	$30	10	$156
55702	Pregnancy ultrasound, < 12 weeks, not referred, old machine	$17.50	95	$1,591
55703	Pregnancy ultrasound, < 12 weeks, not referred	$35	94,434	$3,116,411

Table 42: Service and benefits data for pregnancy ultrasounds 12-16 weeks gestation, 2014/15.

Item	Item Descriptor	Schedule Fee	Services	Benefits
55704	Pregnancy ultrasound, 12 to 16 weeks, referred by doctor or midwife	$70	45,667	$2,883,889
55705	Pregnancy ultrasound, 12 to 16 weeks, not referred	$35	5,962	$195,491
55710	Pregnancy ultrasound, 12 to 16 weeks, referred by doctor, old machine	35	np	145
55711	Pregnancy ultrasound, 12 to 16 weeks, not referred, old machine	17.50	np	33

Table 343: Service and benefits data for pregnancy ultrasounds after 22 weeks gestation, 2014/15.

Item	Item Descriptor	Schedule Fee	Services	Benefits
55718	Pregnancy ultrasound >22 weeks, referred by doctor or midwife	$100	126,264	$12,479,026
55721	Pregnancy ultrasound, > 22 weeks, referred by Member/Fellow of RANZCOG or Diploma of obstetrics, or equivalent or has obstetric privileges at a non-metropolitan hospital	$115	106,940	$11,848,375
55722	Pregnancy ultrasound, > 22 weeks, referred by doctor, old machine	$50	222	$10,333
55723	Pregnancy ultrasound, > 22 weeks, not referred	$38	9,737	$380,819
55724	Pregnancy ultrasound, > 22 weeks, referred by Member or Fellow of RANZCOG or Diploma of obstetrics, or equivalent or obstetric privileges at a non-metropolitan hospital, old machine	$57.50	650	$31,957

Item	Item Descriptor	Schedule Fee	Services	Benefits
55725	Pregnancy ultrasound, > 22 weeks, performed by or on behalf of Member or a Fellow of RANZCOG, not referred	$40	10,769	$431,052
55726	Pregnancy ultrasound, > 22 weeks, not referred, old machine	$19	21	$430
55727	Pregnancy ultrasound, > 22 weeks, performed by or on behalf of Member or a Fellow of RANZCOG, not referred	$20	40	$814
55768	Pregnancy ultrasound, > 22 weeks, multiple pregnancy, referred by doctor	$150	3,118	$471,894
55769	Pregnancy ultrasound, > 22 weeks, multiple pregnancy, referred by doctor, old machine	$75	np	$82
55770	Pregnancy ultrasound, > 22 weeks, multiple pregnancy, not referred	$60	131	$7,836
55771	Pregnancy ultrasound, > 22 weeks, multiple pregnancy, not referred, old machine	$30	25	$713
55772	Pregnancy ultrasound, > 22 weeks, referred by Member or Fellow of RANZCOG, or Diploma of obstetrics, or equivalent or has obstetric privileges at a non-metropolitan hospital	$160	10,079	$1,581,588
55773	Pregnancy ultrasound, > 22 weeks, referred by Member or Fellow of RANZCOG, or has a Diploma of obstetrics, or equivalent or has obstetric privileges at a non-metropolitan hospital, old machine	$80	25	$1,644
55774	Pregnancy ultrasound, > 22 weeks, performed by Member or Fellow of RANZCOG, multiple pregnancy, not referred	$65	183	$11,567
55775	Pregnancy ultrasound, > 22 weeks, performed by Member or Fellow of RANZCOG, multiple pregnancy, not referred, old machine	$32.50	-	-

np: not for publishing due to small service volumes.

4.6.1 Recommendation 12: Remove the list of clinical indications from the item descriptors of <12 weeks and 12-16 weeks pregnancy ultrasound items (MBS items 55700-55705, 55710 and 55711).

It is recommended the list of clinical indications for these services be replaced with an amendment to the item descriptors stating that the items are for the purpose of 'determining the gestation, location, viability or number of foetuses' (for the <12 week ultrasound items) and 'determining the structure, gestation, viability or number of foetuses' (for the 12-16 week ultrasound items) and access to the items rely on clinical judgement.

4.6.2 Rationale 12:

The ObCC recommended that the list of clinical indications included at 2.1.6 of the DIST (Figure 5) for pregnancy ultrasound items (items 55700, 55701, 55702, 55703, 55704, 55705, 55710 and 55711) be removed.

Figure 5: Clinical indications for pregnancy ultrasound item 55700 as they appear in the MBS item descriptors for items 55700, 55701, 55702, 55703, 55704, 55705, 55710 and 55711.

(f) 1 or more of the following conditions are present:

(i) hyperemesis gravidarum;

(ii) diabetes mellitus;

(iii) hypertension;

(iv) toxaemia of pregnancy;

(v) liver or renal disease;

(vi) autoimmune disease;

(vii) cardiac disease;

(viii) alloimmunisation;

(ix) maternal infection;

(x) inflammatory bowel disease;

(xi) bowel stoma;

(xii) abdominal wall scarring;

(xiii) previous spinal or pelvic trauma or disease;

(xiv) drug dependency;

(xv) thrombophilia;

(xvi) significant maternal obesity;

(xvii) advanced maternal age;

(xviii) abdominal pain or mass;

(xix) uncertain dates;

(xx) high risk pregnancy;

(xxi) previous post dates delivery;

(xxii) previous caesarean section;

(xxiii) poor obstetric history;

(xxiv) suspicion of ectopic pregnancy;

(xxv) risk of miscarriage;

(xxvi) diminished symptoms of pregnancy;

(xxvii) suspected or known cervical incompetence;

(xxviii) suspected or known uterine abnormality;

(xxix) pregnancy after assisted reproduction;

(xxx) risk of fetal abnormality (R)

The Committee considered this recommendation from the ObCC and agreed that, as all pregnancies are at risk of foetal abnormality or miscarriage, the list of clinical indications is not required for these items. Patients can already access this service simply by being pregnant as there are no pregnancies in which the requesting doctor cannot apply the clinical indication of "risk of foetal abnormality" to. It was therefore recommended the list be replaced with an amendment to the item descriptors stating that the item is for any examination for the purpose of 'determining the gestation, location, viability or number of foetuses' and access to these items rely on clinical judgement.

Removing the list of clinical indications from these items would serve to considerably simplify the obstetric ultrasound portion of the MBS. As all pregnancies are able to meet at least one indication, this change would not alter access to the items.

However, the Committee noted that removing these clinical indicators would essentially make these screening services. As the MBS does not provide for screening, a Ministerial decision may be required. The Committee also noted that, as the MSAC had recommended the list of clinical indications, removing the list may require its further consideration.

4.6.3 Recommendation 13: Remove the list of clinical indications from the item descriptors of >22 weeks pregnancy ultrasound items (MBS items 55718, 55722, 55723 and 55726) and allow access to these items to rely on clinical judgement.

It is recommended the list of clinical indications for these services is removed and access to these items rely on clinical judgement.

4.6.4 Rationale 13:

There are currently 38 clinical indications listed in the MBS for items 55718, 55722, 55723 and 55726. Removing the list of clinical indications from these items would serve to considerably simplify the obstetric ultrasound portion of the MBS. As virtually all pregnancies are able to meet at least one indication, allowing access to this test to rely on clinical judgement alone would not be expected to alter access to the items.

4.6.5 Recommendation 14: Prohibit claiming of MBS items 55065, 55067, 55068 and 55069 (pelvis ultrasound) for solely pregnancy-related services.

It is recommended that item the item descriptor for MBS item 55065 (pelvis ultrasound) and its NR and NK equivalents, be amended to state that it is not to be used for a solely pregnancy-related service.

4.6.6 Rationale 14:

Table 44 (below) shows the number of services and benefits paid in 2014/15.

Table 44: Services and benefits data for pelvic ultrasound item 55065, 2014/15.

Item	Item Descriptor	Schedule Fee	Services	Benefits
55065	Pelvis, ultrasound scan, referred	$98.25	844,452	$77,403,512

The ObCC recommended that the item descriptor for item 55065 (pelvis ultrasound) and its NR and NK equivalents, should be amended to note that these items cannot be claimed solely for a pregnancy-related service. The current MBS item descriptor for item 55065 is given below:

55065

Group

I1 - Ultrasound

Subgroup

1 - General

PELVIS, ultrasound scan of, by any or all approaches, where:

(a) the patient is referred by a medical practitioner; and

(b) the service is not associated with a service to which an item in Subgroup 2, or 3, applies; and

(c) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member; and

(d) the service is not solely a transrectal ultrasonic examination of the prostate gland, bladder base and urethra, or any of those organs; and

(e) the service is not performed with item 55014, 55017, 55036 or 55038 on the same patient within 24 hours (R)(K)

***Fee:** $98.25 **Benefit:** 75% = $73.70 85% = $83.55*

The Committee agreed with this recommendation from the ObCC. It noted data indicating a significant number of women who claim this item go on to also claim one of the later gestation obstetric ultrasound items (Table 45, below). This indicates item 55065 is being

used for the investigation of viable pregnancies which is not appropriate use of the item. Amending the item would make it clear that an ultrasound to investigate an incomplete or suspected miscarriage should be claimed under one of the less than 12 weeks gestation pregnancy ultrasound items rather than the pelvis ultrasound item.

Item 55065 would therefore be reserved for the investigation of non-pregnancy-related pathologies.

Table 355: Number of patients who claimed a 20 week pregnancy ultrasound who also claimed item 55065, 55068 or 55276 up to 4 months prior to the initial service by state, 2013/14.

State	Total Number of Pelvis Ultrasound Episodes	Number of services for 55065	Number of services for 55068
ACT	193	88	183
NSW	12,314	11,248	4,260
NT	106	115	6
QLD	4,039	3,006	2,045
SA	1,663	1,668	345
TAS	534	369	215
VIC	5,729	4,514	2,317
WA	2,071	1,459	1,067

np – not for publishing due to small service volume.

The Committee reviewed items for nuchal translucency (NT) assessment and gave consideration to whether these items could be incorporated into the items for 12-16 week ultrasound. However, the Committee noted the discrepancy between the clinical indications for NT assessment, which can be performed prior to 12 weeks, and the 12-16 week ultrasound items. In addition, the Committee noted that deleting the NT assessment items would leave no way of tracking the usage of NT assessment.

The Committee recommended future consideration be given to appropriateness of the current items for NT assessment as standalone items, by a properly constituted expert working group that includes both radiologists and obstetricians.

Table 46 (below) shows the NT assessment items reviewed, along with their corresponding MBS fee, number of services and value of benefits paid (2014/15).

Table 46: Services and benefits data for pregnancy ultrasounds with NT measurement, 2014/15.

Item	Short Descriptor	Schedule Fee	Services	Benefits
55707	Pregnancy ultrasound, crown rump length 45 to 84 mm, nuchal translucency measurement, referred by doctor or midwife	$70	157,875	$9,925,279
55708	Pregnancy ultrasound, crown rump length 45 to 84 mm, nuchal translucency measurement, not referred	$35	626	$20,158
55714	Pregnancy ultrasound, crown rump length 45 - 84mm, nuchal translucency measurement performed, referred by doctor, old machine	$35	np	$96
55716	Pregnancy ultrasound, crown rump length 45 - 84mm, nuchal translucency measurement performed, referred by doctor, old machine	$17.50	np	$65

np – not for publishing due to small service volumes.

The Committee also noted the importance of emphasising that NT measurement continues to be a valuable method by which to identify foetuses at increased risk of chromosomal or structural abnormalities, even outside of its role as a component of the combined first trimester screening for aneuploidies.

4.6.7 Recommendation 15: Create a new item for 12-16 week morphology ultrasound for multiple gestation pregnancies.

It is recommended the introduction of a new item for a 12-16 week morphology ultrasound for multiple gestation pregnancies with a higher fee to reflect the increased time and complexity associated with scanning more than one foetus.

Table 47 shows those items reviewed in making this recommendation along with their corresponding MBS fee, number of services and value of benefits paid (2014/15).

Table 47: Services and benefits data for pregnancy ultrasounds 17-22 weeks gestation, 2014/15.

Item	Item Descriptor	Schedule Fee	Services	Benefits
55759	Pregnancy ultrasound, 17 to 22 weeks, referred by doctor, multiple pregnancy	$150	3,538	$570,752
55760	Pregnancy ultrasound, 17 to 22 weeks, referred by doctor, multiple pregnancy, old machine	$75	np	$206

Item	Item Descriptor	Schedule Fee	Services	Benefits
55762	Pregnancy ultrasound, 17 to 22 weeks, not referred, multiple pregnancy	$60	54	$3,440
55763	Pregnancy ultrasound, 17 to 22 weeks, not referred, multiple pregnancy, old machine	$30	np	$108
55764	Pregnancy ultrasound, 17 to 22 weeks, referred by Member or a Fellow of RANZCOG, multiple pregnancy	$160	1,279	$194,446
55765	Pregnancy ultrasound, 17 to 22 weeks, referred by Member or a Fellow of RANZCOG, multiple pregnancy, old machine	$80	6	$418
55766	Pregnancy ultrasound, 17 to 22 weeks, performed by or on behalf of Member or a Fellow of RANZCOG, multiple pregnancy, not referred	$65	61	$3,847
55767	Pregnancy ultrasound, 17 to 22 weeks, performed by or on behalf of Member or a Fellow of RANZCOG, multiple pregnancy, not referred, old machine	$32.50	np	$121

np – not for publishing due to small service volumes.

4.6.8 Rationale 15:

Items currently exist for 17-22 week and >22 week ultrasounds for pregnancies confirmed to be multiples. However, at present, 12-16 week ultrasounds for multiple pregnancies are claimed under the same ultrasound items as singleton pregnancies. The new item would carry a higher schedule fee than item 55704 to reflect the additional complexity and time taken in performing 12-16 week morphology ultrasound in the presence of multiple foetuses.

The Committee agreed with this recommendation as a greater amount of time is required to perform obstetric ultrasound services on multiple foetuses and the recommendation would align the 12-16 week ultrasound MBS items with those used in later pregnancy.

It is recommended a new referred item be introduced for cervical length assessment for patients at risk of premature labour, if specific clinical indications are met.

4.6.9 Recommendation 16: Create a new item for cervical length assessment for threatened preterm labour.

The ObCC recommended the introduction of a new referred item for cervical length assessment for preterm labour (16-30 weeks gestation) that can be billed fortnightly where there is one or more of:

a) a history of preterm birth; or

b) symptoms suggestive of threatened preterm labour or mid-trimester foetal loss; or

c) cervix <25mm on an ultrasound before 28 weeks gestation.

This item number could not be billed within 24 hours of another pregnancy ultrasound. The recommended associated fee for this item would equate to around 50% of that for item 55718.

4.6.10 Rationale 16:

The Committee agreed with this recommendation as it better reflects the relative speed and ease with which this scan can be performed, which does not warrant claiming item 55718. The Committee noted this new item may require assessment by MSAC.

Additional recommendations considered by the Committee

Additional recommendations were made by the ObCC which the Committee either decided not to endorse, or elected not to provide advice regarding. These recommendations and the corresponding response from the Committee are given below.

The ObCC recommended an additional item for the 12-16 week ultrasound without NT assessment be added to the MBS for any required follow up ultrasounds. It was recommended that this item could not be claimed unless a significant abnormality had been found in the first 12-16 week ultrasound or another clinical indication had been met. The Committee noted this recommendation from the ObCC. However, it did not agree that an additional item was necessary, noting the portion of the MBS relating to obstetric ultrasound services is already complex.

The ObCC recommended that the schedule fee for 12-16 week morphology ultrasound (item 55704) is increased to reflect the complex work that is required in performing this service. The Committee supported this recommendation, in-principle but did not wish to provide advice on an appropriate fee for one specific obstetric ultrasound item in isolation. The Committee therefore recommended that this recommendation from the ObCC be considered by the MSAC Executive.

The ObCC recommended that the NK MBS items (items for machines older than 10 years) should be removed except for rural and remote areas. The ObCC advised the 12-16 week morphology and NT assessment items, 20 week morphology ultrasound and all items for multiple pregnancies, should not be performed with aged equipment due to the insufficient quality of the image obtained. The ObCC recommended that the Department work to increase access to newer machines in rural and remote areas. The Committee supported this recommendation. However, it noted it had already made recommendations relating to the

removal of NK items from the MBS (detailed in Section 4.9) which it did not seek to alter. The Committee therefore gave no further advice on this matter.

4.7 Magnetic resonance imaging (items 63301 to 63747)

The Committee reviewed items relating to MRI for various clinical indications and patient populations. The items included in this review relate to MRI of the cardiovascular system, MRI for patients under the age of 16 and MRI modifying items. All items included in this review were from Category 5 of the MBS, Group I5 – MRI.

Advice from the GCC and OncCC of the MBS Review Taskforce regarding the provision of MBS-listed MRI services was also considered during this review.

After reviewing the relevant items, giving consideration to Medicare data, current best practice, clinical evidence and advice from other clinical committees, the Committee developed six recommendations relating to new MBS-funded MRI services.

Each recommendation, the Medicare data reviewed, clinical evidence considered and the rationale for each recommendation, is detailed in this Section.

The recommended changes focus on encouraging best practice, modernising the MBS to reflect contemporary practice and ensuring that MBS services provide value for the patient and the healthcare system.

Table 48, below, shows Medicare service and benefits data for the 2016/17 FY for MRI items reviewed. The 5-year CAGR is also detailed. Note that for items listed on the MBS for less than five years, a 5 year CAGR has not been calculated.

Table 48: Service and benefits data for MRI items reviewed, 2016/17.

Item	Descriptor	Schedule Fee	Services 2016/17	Benefits 2016/17	5 year service change % (CAGR)
63304	MRI- musculoskeletal system - Infection arising in bone of musculoskeletal system, this excludes infection arising in breast, prostate or rectum (R) (Contrast) (Anaes.)	$380.80	10,210	$3,708,656	16%
63385	MRI scan of cardiovascular system for: - congenital disease of the heart or a great vessel (R) (Contrast) (Anaes.)	$448.00	1,737	$751,300	6%
63388	MRI- tumour of the heart or a great vessel (R) (Contrast) (Anaes.)	$448.00	296	$126,214	10%
63391	MRI - abnormality of thoracic aorta (R) (Contrast) (Anaes.)	$403.20	574	$219,368	7%
63392	MRI (including magnetic resonance angiography if performed) scan of cardiovascular system for: - congenital disease of the heart or a great vessel (R) (NK) (contrast) (Anaes.)	$224.00	-	$-	0

Item	Descriptor	Schedule Fee	Services 2016/17	Benefits 2016/17	5 year service change % (CAGR)
63393	MRI- tumour of the heart or a great vessel (R) (NK) (contrast) (Anaes.)	$224.00	np	$224	-
63394	MRI- abnormality of thoracic aorta (R) (NK) (contrast) (Anaes.)	$201.60	0	$0	-
63401	Magnetic resonance angiography of cardiovascular system for: - vascular abnormality in a patient with a previous anaphylactic reaction to an iodinated contrast medium (R) (Contrast) (Anaes.)	$403.20	62	$23,842	5%
63404	MRI- obstruction of the superior vena cava, inferior vena cava or a major pelvic vein (R) (Contrast) (Anaes.)	$403.20	135	$52,367	10%
63407	Magnetic resonance angiography scan of cardiovascular system for: - vascular abnormality in a patient with a previous anaphylactic reaction to an iodinated contrast medium (R) (NK) (contrast) (Anaes.)	$201.60	np	$605	25%
63408	MRI- obstruction of the superior vena cava, inferior vena cava or a major pelvic vein (R) (NK) (contrast) (Anaes.)	$201.60	0	$0	-
63416	MRI scan of person under the age of 16 for: - the vasculature o63361f limbs prior to limb or digit transfer surgery in congenital limb deficiency syndrome (R) (Contrast) (Anaes.)	$403.20	np	$1,809	-
63419	Magnetic resonance angiography scan of person under the age of 16 for: - the vasculature of limbs prior to limb or digit transfer surgery in congenital limb deficiency syndrome (R) (NK) (contrast) (Anaes.)	$201.60	0	$0	-
63425	MRI scan of person under the age of 16 for: - post-inflammatory or post-traumatic physeal fusion (R) (Anaes.)	$403.20	11	$4,425	22%
63428	MRI - Gaucher disease (R) (Anaes.)	$403.20	np	$806	-
63432	MRI scan of person under the age of 16 for: - post-inflammatory or post-traumatic physeal fusion (R) (NK) (Anaes.)	$201.60	0	$0	-
63433	MRI - Gaucher disease (R) (NK) (Anaes.)	$201.60	0	$0	-
63440	MRI scan of person under the age of 16 for: - pelvic or abdominal mass (R) (Contrast) (Anaes.)	$403.20	383	$148,363	1%
63443	MRI - mediastinal mass (R) (Contrast) (Anaes.)	$403.20	44	$16,912	16%
63446	MRI - congenital uterine or anorectal abnormality (R) (Contrast) (Anaes.)	$403.20	55	$21,546	-6%
63447	MRI scan of person under the age of 16 for: - pelvic or abdominal mass (R) (NK) (contrast) (Anaes.)	$201.60	-	$0	-
63448	MRI- mediastinal mass (R) (NK) (contrast) (Anaes.)	$201.60	-	$-	-
63449	MRI- congenital uterine or anorectal abnormality (R) (NK) (contrast) (Anaes.)	$201.60	-	$-	-

Item	Descriptor	Schedule Fee	Services 2016/17	Benefits 2016/17	5 year service change % (CAGR)
63461	MRI - scan of body for adrenal mass in a patient with malignancy which is otherwise resecetable (R) (Anaes.)	$358.40	346	$120,545	5%
63491	modifying items for use with magnetic resonance imaging or magnetic resonance angiography - involves the use of contrast agent for eligible magnetic resonance imaging items (note: (contrast) denotes an item eligible for use with this item)	$44.80	-	$7,834,156	-
63494	- involves use of intravenous or intramuscular sedation on a patient	$44.80	-	$239,809	-
63497	- on a patient under anaesthetic in the presence of a medical practitioner qualified to perform an anaesthetic	$156.80	-	$358,184	-
63498	MRI service to which item 63501, 63502, 63504 or 63505 applies if: (a) the service is performed in accordance with the determination; and (b) the service is performed on a person using intravenous or intra muscular sedation	$44.80	0	$0	-
63499	MRI service to which item 63501, 63502, 63504 or 63505 applies if: (a) the service is performed in accordance with the determination; and (b) the service is performed on a person under anaesthetic in the presence of a medical practitioner who is qualified to perform an anaesthetic	$156.80	0	$0	-
63746	MRI enteroclysis for Crohn's disease. Medicare benefits are only payable for this item if the service is related to item 63744. (R) (NK)	$132.65	1	$128	-
63747	MRI for fistulising perianal Crohn's disease. Medicare benefits are only payable for this item if the service is provided to patients for: - Evaluation of pelvic sepsis and fistulas associated with established or suspected Crohn's disease, - Assessment of change to therapy of pelvis sepsis and fistulas from Crohn's disease. Assessment of change to therapy can only be claimed once in a 12 month period. (R) (NK) (Contrast)	$201.60	27	$5,413	-

Table 49, below, shows the 2016/17 FY state-by-state Medicare data per 100,000 population for MRI items considered in this review.

Table 49: State-by-state Medicare service data per 100,000 population for MRI items reviewed, 2016/17.

Item Number	NSW/ACT	VIC/TAS	QLD	SA/NT	WA	Total
63304	46	36	44	46	31	41
63385	11	7	5	3	3	7

Item Number	NSW/ACT	VIC/TAS	QLD	SA/NT	WA	Total
63388	2	0	2	1	1	1
63391	3	2	3	3	0	2
63392	0	0	0	0	0	0
63393	0	0	1	0	0	0
63394	0	1	1	0	0	1
63401	0	0	0	0	0	0
63404	0	0	0	0	0	0
63407	0	0	0	0	0	0
63408	0	0	0	0	0	0
63416	1	2	2	2	1	2
63419	0	0	0	0	0	0
63425	0	0	0	0	1	0
63428	2	2	1	1	0	1
63432	0	0	0	0	0	0
63433	0	0	0	0	0	0
63440	11	7	5	3	3	7
63443	2	0	2	1	1	1
63446	3	2	3	3	0	2
63447	0	0	0	0	0	0
63448	0	0	1	0	0	0
63449	0	1	1	0	0	1
63461	0	0	0	0	0	0
63491	0	0	0	0	0	0
63494	0	0	0	0	0	0
63497	0	0	0	0	0	0
63498	0	0	0	0	0	0
63499	0	0	0	0	0	0
63746	0	0	0	0	0	0
63747	0	0	0	0	0	0

The Committee reviewed the standard Medicare data, shown in Tables 49 and 50 (above) for MRI items included in this review.

The Committee discussed whether any of the MRI items under review might be considered obsolete. The Committee agreed that, although some items displayed very low service volumes, this is expected among items for specific and uncommon clinical conditions. The Committee agreed these items remain clinically valid in spite of the observed low usage. The Committee noted that many of the items reviewed had only recently been added to the MBS. The Committee agreed that all items reviewed remain appropriate in contemporary clinical practice and therefore did not recommend the deletion of any items.

After reviewing MBS services for MRI, the Committee did not seek to amend or delete any of the current items. The Committee considered the appropriateness of the current item descriptors for the items reviewed and agreed the current descriptors are appropriate and did not seek to change them.

However, it did identify areas where it agreed new services are needed. The Committee therefore recommended the creation of two new items to be added to the MBS.

4.7.1 Recommendation 17: Create a new item with a higher fee than the current item for MRI contrast agents (item 63491) specific for macrocyclic gadolinium contrast agents.

The Committee recommended that a new item be created with a higher fee than the current MBS item for MRI contrast agents (item 63491) specific for macrocyclic gadolinium-based contrast agents.

4.7.2 Rationale 17:

The Committee discussed the current Medicare funding for MRI modifying agents (item 63491) in light of emerging safety concerns around the use of linear gadolinium-based compounds used for MRI contrast.

Gadolinium-based contrast is used in MRI for brain tumours or inflammatory and demyelinating conditions, as well in angiography and imaging of the liver. However, recent clinical evidence has emerged indicating gadolinium deposits may be detected in the brain, bones and other organs for many years after their administration (6). However, contemporary medical evidence suggests this risk is considerably lower when macrocyclic gadolinium agents are used compared with linear compounds (7).

The Therapeutic Goods Association (TGA) issued a statement in July 2017 acknowledging recent findings that gadolinium-based MRI contrast agents, previously thought not to cross the blood-brain-barrier, have now been shown to accumulate in brain tissue. The statement

noted that evidence suggests gadolinium retention in the brain has been found to be much greater when linear, rather than macrocyclic, gadolinium-based agents are used (8).

The Royal Australian and New Zealand College of Radiologists (RANZCR) statement regarding the relative safety of gadolinium-based MRI contrast agents, also issued in July 2017, reiterates the position of the TGA. In the statement, the RANZCR advises practitioners to review their choice of gadolinium chelate, particularly among patients with renal impairment, paediatric or obstetric patients, the effect of gadolinium retention among whom are of greatest concern or poorly understood (9).

Both the TGA and the RANZCR note that no harmful effects of gadolinium retention in the brain have been identified to date and the long-term effects of exposure are not yet known. However the RANZCR advises practitioners to be judicious in their choice of gadolinium-based contrast agent (9).

The Committee noted the above advice and agreed on the clear evidence for the likely superior safety of macrocyclic over linear agents. The Committee discussed the fact that providers can only claim MRI contrast agents using item number 63491, which carries a fee of $44.80, regardless of the type of contrast agent used. The fee for the item is not only to cover the cost of the contrast but also the additional time taken to produce the post-contrast images.

The Committee agreed macrocyclic gadolinium agents are more expensive than linear compounds and many radiology practices are already absorbing the cost of using macrocyclic gadolinium given the evidence about its comparative safety. However, the Committee agreed that only having one MBS item number to cover both linear and macrocyclic agents is sub-optimal noting the cyclical agents are, on average, around twice as expensive as the linear agents.

The Committee discussed the components of the recent evidence regarding the effects of gadolinium MRI contrast agents and agreed the risk is much higher when agents are used serially (i.e. for repeated scans). The Committee discussed the possibility of providing incentives for using macrocyclic gadolinium if there is a high likelihood of multiple scans. The Committee also discussed the possibility of removing any MBS rebate for linear agents in this context.

The Committee agreed that the current fee of $44.80 is insufficient to cover the cost of macrocyclic gadolinium which creates a disincentive for providers to use the safer, more expensive agent and increases the likelihood of linear gadolinium being used. The Committee therefore recommended a new item be created with a higher fee than the current MRI modifying agent (item 63491) specific for macrocyclic gadolinium-based MRI contrast agents.

The Committee considered whether the fee for linear gadolinium agents should be reduced relative to the existing item. Members agreed that while macrocyclic gadolinium is the preferred options in most cases, there are specific clinical instances in which linear agents remain relevant and therefore should continue to be listed on the MBS. However, members recommended the fee for linear agents be decreased concurrently as the fee for macrocyclic gadolinium agents is increased, compared to the current item.

Consideration of advice from the GCC

During its review of MRI MBS items, the Committee considered referrals from the GCC of the MBS Review Taskforce regarding two proposed new MRI services in gynaecology for specific clinical indications. The complete referrals from the GCC are given at Appendices C and D.

The Committee noted advice from the GCC that consideration be given to perceived gaps in access to imaging for patients undergoing MRI for the investigation of sub-fertility and cervical cancer. In its two referrals, the GCC asked the Committee to consider making recommendations for the creation of two new services to improve access to MRI of the pelvis for indications that are currently not covered by MBS-listed MRI services.

4.7.3 Recommendation 18: Create a new item for MRI of the pelvis for the investigation of sub-fertility.

The Committee recommended that a new item be created for MRI of the pelvis for the investigation of sub-fertility.

The Committee considered the advice from the GCC that a service is needed for MRI of the pelvis for the investigation of sub-fertility among women of reproductive age. In its Memorandum to the Committee, the GCC recommended the modification of the item descriptor for the current item for MRI of the pelvis for patients under 16 years for the investigation of a pelvic or abdominal mass (item 63440) to include women of all ages for the investigation of subfertility. The complete referral from the GCC is given at Appendix C.

Although the Committee agreed a new service is warranted, it agreed that, as the eligible patient population and clinical indications would be significantly different to those included in the existing item, the MSAC Executive should be consulted on the creation of the new item.

The proposed descriptor for the new item is as follows:

MRI of the female pelvis/lower abdomen under the professional supervision of an eligible provider at an eligible location where the patient is referred by a gynaecologist for the following indications:

- *Investigation of suspected Mullerian duct anomaly seen in pelvic ultrasound or hysterosalpingogram;*
- *Assessment of uterine mass identified on pelvic ultrasound before consideration of surgery (myomectomy);*
- *Investigation for recurrent implantation failure in IVF (> 2 good quality embryos transferred without viable pregnancy); or*
- *Preoperative assessment of patient with suspected bowel involvement with severe endometriosis.*

This item cannot be claimed more than once in any two-year period.

4.7.4 Rationale 18:

There is currently no item in the MBS for MRI of the pelvis for patients experiencing infertility. The GCC provided advice to the Committee that it recommend adding specific indications to the descriptor of the MBS item for MRI of the pelvis for pelvic or abdominal mass in a person under 16 years (item 63440) and remove the age restriction to make it available to women of all ages for the investigation of sub-fertility. The complete referral from the GCC is given at Appendix C.

The Committee considered this advice, noting the clinical evidence provided by the GCC, and agreed a new item was warranted for the investigation of sub-fertility among women of reproductive age. However, instead of amending the current item for MRI of the pelvis for patients aged under 16 (item 63440), it recommended a new item be created for this purpose and this should be referred to the MSAC Executive for further consideration.

4.7.5 Recommendation 19: Create a new item for MRI for the evaluation of cervical cancer for initial staging or re-staging.

The Committee recommended the creation of a new item for the evaluation of cervical cancer to be used for initial staging at diagnosis, re-staging prior to surgery or following neoadjuvant chemotherapy and/or radiotherapy or for the evaluation of suspected disease recurrence.

4.7.6 Rationale 19:

The Committee considered the advice from the GCC that a service is needed for MRI of the pelvis for restaging of cervical cancer. In its Memorandum to the Committee, the GCC advised the Committee to recommending the descriptor for item 63470 to be amended to:

- Remove the restriction that states benefits are payable for a service included by subgroup 20 on one occasion only.
- Add the following indications:
    - Restaging in the event of suspected recurrence of cervical cancer prior to exenterative surgery and/or for planning of vaginal brachytherapy radiation treatment.
    - Staging for endometrial cancer in a woman with a diagnosis of endometrial cancer who wishes to retain her uterus.
    - Pelvic malignancy prior to pelvic exenterative surgery.

The complete referral from the GCC is given at Appendix D.

The Committee noted the existing item for the staging of histologically-diagnosed cervical cancer at FIGO stages 1B or greater (item 63470) which is payable on one occasion only for any given patient. It agreed a new item is warranted that permits restaging of cervical cancer in the setting of neoadjuvant chemotherapy and/or radiotherapy, to assist with surgical planning or to evaluate suspected relapse. However, as the eligible patient population for the revised item would be significantly different to item 63470, the Committee recommended a new item be created for this purpose. Furthermore, clinical evidence supports MRI as the imaging modality that provides the best visualisation of the extent of localised spread of disease in cervical cancer in the setting of adjuvant chemo- or radiotherapy (11).

The Committee recommended that no time period restriction be applied to the new item. In arriving at this recommendation, the Committee consulted with members of the OncCC regarding the appropriate frequency of MRI for restaging in this context. The Committee and OncCC members agreed that there should be flexibility in how often the service can be provided as in some clinical instances, it may be appropriate for follow-up scanning to be performed within 6 months of commencement of neoadjuvant chemo- and/or radiotherapy. In other cases, less frequent restaging may be sufficient and the item descriptor should accommodate clinical need rather than dictate medical practice.

Considerations discussed between the Committee and members of the OncCC included agreement that:

- Suspected relapse would constitute appropriate use for the purpose of restaging.
- The service should not be used for routine surveillance in clinically well patients.

- One service per 6-month period may be inadequate for some patients as follow-up scanning with neoadjuvant chemo- and/or radiotherapy me be required within 6 months.
- A well-defined item descriptor would negate the need to apply a time period restriction to service frequency.
- If a requirement for consideration of the necessity of the scan at a properly constituted oncological multidisciplinary team (MDT) meeting was included in the item descriptor, this should act as a gate-keeper to ensure appropriate use of the item in the absence of a time period restriction. However, members noted that although multi-disciplinary collaboration via MDT constitutes the best model of care for patients, there may not be sufficient coverage of MDTs in all areas to review all necessary patient cases. Therefore, MDT discussion should not be mandatory to enable access to MBS-funded services.
- Removing the time restriction and modifying the descriptor would allow for modification of imaging based on response to treatment, where clinically appropriate.

The Committee agreed on the following proposed item descriptor for a new MBS item for MRI for the evaluation of cervical cancer.

The proposed item descriptor is:

- *MRI scan of the pelvis for the evaluation of cervical cancer.*
    - *Patient referred by a specialist surgeon, gynaecologist, oncologist, or radiation oncologist.*
    - *Medicare benefits are only payable for this item if the service is provided to patients:*
        a) for initial staging at diagnosis; or
        b) for re-staging prior to surgery or radiotherapy following neoadjuvant chemotherapy and/or radiotherapy; or
        c) for evaluation of suspected relapse based on pathology findings, or when other imaging is inconclusive.
- *Ideally, MRI would occur after consideration of patient's management at a properly constituted oncological multidisciplinary team meeting.*
- *Medicare benefits are not payable for surveillance of clinically well patients following completion of therapy.*

The Committee agreed that, since the proposed item constitutes a material change to the way the service is delivered (through a significantly altered eligible patient population) it may need to be considered by the MSAC Executive. Further economic modelling should be undertaken prior to a Schedule Fee being decided upon.

Consideration of advice from the OncCC

During its review of MRI MBS items, the Committee considered a referral from the OncCC of the MBS Review Taskforce regarding PET and MRI MBS items that are seen to limit access to MRI in oncology to specific patient populations. The complete referral from the OncCC is given at Appendix E.

The Committee noted a request from the OncCC that it give consideration to perceived gaps in access to imaging for patients undergoing MRI for the investigation of cancer. In its referral, the OncCC asked the Committee to consider a number of specific recommendations for proposed new services to improve access to MRI for indications that are currently not covered by MBS-listed MRI services. Government-funded access to these services, the OncCC noted, are the current standard of care in the United Kingdom, United States of America and elsewhere in the world.

In undertaking this review, the Committee considered past and current MSAC applications in relating to MRI in cancer care. A complete list of recent MSAC applications for MRI services is given in Table 50, below.

Table 50: Proposed MRI services considered by MSAC.

MSAC Application Number	Status	Reason for Application	Descriptor
1098 / 1098.1	Closed	None indicated	Breast MRI / Review of Interim Funded Service: Breast MRI
1110	Closed	None indicated	MRI for staging of rectal carcinoma
1131	Closed	None indicated	Assessment of Liver Iron by R2-MRI data analysis
1190	Closed	None indicated	MRI for small bowel and pelvis in Crohn disease
1237	Open	New MBS item	Cardiovascular MRI
1372 1372.1 (related to 1372)	Closed Open	New MBS item New MBS item	MRI of the liver – Scan for the detection and characterisation of focal liver lesions MRI for patients with colorectal carcinoma (CRC) with suspected hepatic metastases or patients with suspected hepatocellular carcinoma (HCC) for the purposes of staging
1397	Open	New MBS item	mpMRI prostate diagnostic scans
1467	Open	New MBS item	Obstetric MRI
1333 1464 (related to 1333)	Open Open	New MBS item New MBS item	Breast MRI Breast MRI for improved definition of the breast cancer primary
1432	Open	New MBS item	MRI for patients with suspected non-ischaemic cardiomyopathies
1393	Open	New MBS item	MRI for patients with suspected non-ischaemic cardiomyopathies
1490	Open	New MBS item	Breast MRI for Breast Implant Associated Anaplastic Large Cell Lymphoma

The Committee noted these past and current MSAC applications for proposed new MRI services; in particular, those relating to the investigation of confirmed or suspected malignancies.

The Committee noted the OncCC position supporting a complete restructure of the way cancer imaging, including fluorodeoxyglucose-PET (FDG-PET) and MRI services, are provided under the MBS.

In considering the referral from the OncCC, members discussed the current role of PET in cancer care in Australia compared to other developed nations. In Australia, there is specific consideration given to PET services for particular cancer types, decided by the MSAC (12). Members acknowledged a proposal by the MSAC to reconsider the way FDG-PET services are listed on the MBS. Base exemplars where PET is used with good clinical evidence supporting its impact on changing management will be used to expand the cancer types for which Medicare-funded PET is accessible. This approach may eventually be also used to expedite

the listing of MRI services for the investigation of cancer. The Committee noted that MRI is fundamentally different from PET in that it is not typically performed as a whole body scan but rather, is used to investigate specific organs or anatomical regions. Nonetheless, the Committee agreed on the potential patient benefit that may be derived from the MBS-listing of additional MRI services for a broader range of cancer types.

The Committee acknowledged that the Nuclear Medicine Working Group (NMWG) of the Committee previously considered the referral from the OncCC in the development of its recommendations relating to PET. The recommendations from the NMWG relating to the provision of PET services broadly align with the advice of the OncCC and support the proposed restructuring of MBS-listed PET services.

The Committee considered the specific proposed MRI services recommended by the OncCC. These include:

- MRI of the liver with gadoxetate disodium or ultrasmall superparamagnetic iron oxide (USPIO);
- MRI for head and neck malignancy;
- MRI of the breasts in patients with specific clinical indications;
- MRI in ovarian masses where further characterisation is required;
- MRI for restaging of rectal cancer after neoadjuvant treatment; and
- whole body MRI for children and patients with myeloma.

The Committee discussed priority areas for new MRI services in oncology. Although it agreed new services are warranted, it acknowledged the need to prioritise the recommended creation of new services on the basis of potential benefit to patients.

The Committee also noted the low clinical value associated with performing expensive MRI services in clinically well patients. Although it was noted imaging investigations can provide patients with peace of mind, the Committee agreed this practice lends itself to the risk of over-diagnosis of “incidentalomas” leading to additional diagnostic tests and subsequent treatment for lesions that never would have caused the patient harm in the first place.

After considering the advice of the OncCC, the Committee agreed to recommend three new MRI services for the investigation cancer. These include:

- MRI for the evaluation of rectal cancer;
- whole body MRI for children for the staging of disseminated malignancy; and
- MRI of the liver for the evaluation of hepatic metastases.

4.7.7 Recommendation 20: Create a new item for MRI for the evaluation of rectal cancer for initial staging or re-staging.

The Committee recommended the creation of a new item for the evaluation of rectal cancer to be used for initial staging at diagnosis, re-staging prior to surgery or following neoadjuvant chemotherapy and/or radiotherapy or for the evaluation of suspected disease recurrence.

4.7.8 Rationale 20:

The Committee noted the existing item for initial staging of rectal cancer (item 63476) which is limited to initial staging of rectal cancer. It agreed a new item is warranted that permits restaging of rectal cancer in the setting of neoadjuvant chemotherapy and/or radiotherapy, to assist with surgical planning or to evaluate suspected relapse.

The Committee considered recommending the removal of the current time period restriction for item 63476 of one service only for this item. In consultation with members of the OncCC, the Committee recommended the proposed new service carry no time period restriction. However, it considered the inclusion of a requirement that a properly constituted MDT consider the patients' management at an MDT meeting for the scan to be claimed under the MBS. This, The Committee agreed, would allow for more appropriate frequency of monitoring and restaging of rectal cancer compared with the one service restriction on the current item. However, the Committee noted concern that the coverage of MDTs in all areas may not be sufficient to review all necessary patient cases. Therefore, MDT discussion should not be mandatory to enable access to MBS-funded services.

Clinical evidence supports MRI as the imaging modality of choice in monitoring for early detection of possible local recurrence of rectal cancer during adjuvant chemo- or radiotherapy (13, 14).

The Committee consulted with members of the OncCC in developing a proposed item descriptor for the item and agreed on the following proposed item descriptor.

The proposed new item descriptor for the item is:

- *MRI scan of the pelvis for the evaluation of rectal cancer.*
    - *Patient referred by a specialist surgeon, oncologist, or radiation oncologist.*
    - *Medicare benefits are only payable for this item if the service is provided to patients:*
        - *a) for initial staging at diagnosis.*
        - *b) for re-staging prior to surgery following neoadjuvant chemotherapy and/or radiotherapy.*
        - *c) for evaluation of suspected relapse based on pathology findings, or when other imaging is inconclusive.*
- *Ideally, MRI would occur after consideration of patient's management at a properly constituted oncological multidisciplinary team meeting.*
- *Medicare benefits are not payable for surveillance of clinically well patients following completion of therapy.*

The Committee agreed that, since the proposed item constitutes a material change to the way the service is delivered (through a significantly altered eligible patient population) it may need to be considered by the MSAC Executive. Further economic modelling should be undertaken prior to a Schedule Fee being decided upon.

4.7.9 Recommendation 21: Create a new item for whole-body MRI for children with disseminated malignancy, suspected non-accidental injury and chronic recurrent osteomyelitis.

The Committee recommended the creation of a new item for whole-body MRI for children with disseminated malignancy, suspected non-accidental injury and chronic recurrent osteomyelitis. The proposed new item should be referred to the MSAC Executive for consideration.

4.7.10 Rationale 21:

The Committee discussed the proposed listing of a service for whole-body MRI for children that can be used for the staging of disseminated malignancy and agreed a new service should be created for this purpose. In addition, the Committee agreed the indications of suspected non-accidental injury and chronic recurrent osteomyelitis should be included as clinical indications for the service.

At present, no item is listed on the MBS that provides whole-body MRI for children with cancer. Paediatric whole-body MRI has become an increasingly wide-spread practice being undertaken by radiologists for children with specific cancer predisposition syndromes and other neoplastic and non-neoplastic clinical indications. Whole-body MRI can be used to evaluate the extent and distribution of cancer in children without the disadvantage of exposure to ionising radiation, particularly when repeated scans may be necessary (15, 16).

In addition, the Committee considered the value of paediatric whole-body MRI for non-oncological indications. The Committee noted there is a role for whole-body MRI in identifying the source of infection in children with raised inflammatory markers. However, the Committee agreed the item should be limited to defined indications to ensure appropriately targeted requesting. The Committee agreed to include suspected non-accidental injury and chronic recurrent osteomyelitis as indications.

The proposed descriptor is:

Whole Body MRI for suspected disseminated malignancy.

Medicare benefits are only payable for this item if the service is provided to patients who;

1) *is aged under 16 years; and*
2) *has a known malignancy (including multiple myeloma); and*
3) *is being investigated for possible disseminated malignancy for the purposes of diagnosis, staging or assessment of response to treatment; or*
4) *for the evaluation of suspected relapse based on pathology findings, or when other imaging is inconclusive, after consideration of patient's management at a properly constituted oncological MDT meeting; or*
5) *is suspected of having had a non-accidental injury; or*
6) *has a history of chronic recurrent multifocal osteomyelitis; and*
7) *The MRI is requested by specialist.*

Medicare benefits are not payable for post-therapeutic follow up imaging.

Not a service to be associated with any service for PET/MRI.

The Committee agreed that, since the proposed item constitutes a new MBS service, it may need to be considered by the MSAC Executive. Further economic modelling should be undertaken prior to a Schedule fee being decided upon.

4.7.11 Recommendation 22: Create a new item for MRI of the liver for the evaluation of hepatic metastases for initial staging or restaging prior to treatment using interventional techniques.

The Committee recommended the creation of a new item for MRI of the liver to be used for the evaluation of secondary hepatic cancers for either initial staging or re-staging prior to surgery or other treatment for hepatic metastases.

4.7.12 Rationale 22:

The Committee discussed the proposed listing of a new service for MRI of the liver for suspected hepatic metastases and agreed a new item is needed for this purpose.

The Committee noted a recent MSAC application for MRI of the liver for patients with colorectal carcinoma (CRC) with suspected hepatic metastases or patients with suspected hepatocellular carcinoma (HCC) for the purposes of cancer staging. After reviewing the available evidence in relation to the comparative safety, clinical effectiveness and cost effectiveness of the proposed services, the MSAC supported MBS listing of contrast-enhanced MRI of the liver for patients with these known or suspected cancers. The MSAC recommended two new MBS items be listed – one for metastatic CRC and one for HCC – with a restriction of one service per 12-month period for both. It also advised the utilisation of these items should be reviewed two years after implementation (17).

The Committee noted that the MSAC supported MBS funding for gadolinium-enhanced MRI of the liver but noted this service is limited to patients with known CRC with suspected or proven liver metastases and patients with known or suspected HCC. The Committee agreed that a service is required for MRI of the liver for additional oncologic indications.

In developing its recommendation for a new service for MRI of the liver, the Committee consulted with members of the OncCC. During this consultation, the OncCC agreed that a new item should be developed to incorporate re-staging during treatments including surgical resection, ablation with radiofrequency, cryotherapy or newer technologies such as highly focussed ultrasound (local injection of chemotherapeutic agents that melt under the heat of ultrasound). These treatment approaches would be encompassed by the inclusion of the term "*interventional treatment*" in the item descriptor. The OncCC noted that MRI of the liver may help avoid futile treatments and guide appropriate treatment.

The Committee and OncCC discussed the development of a new item. These included:

- Metastasis to the liver is common to many types of primary cancers.

- Treatment of liver metastasis may include surgical resection, ablation and chemotherapy.
- Compared to other imaging modalities, MRI is more accurate for the detection of metastatic liver lesions or differentiating non-malignant focal liver lesions from metastatic lesions. This is due to the greater soft issue contrast resolution of MRI compared to CT.
- CT has a high sensitivity for the detection of metastatic liver lesions and should remain the first-choice imaging modality. MRI should only be used to address questions not answered by CT, or to detect metastatic disease in patients with high clinical suspicion of metastatic liver disease when CT is negative and the confirmed presence of liver metastases would change management.
- In patients who are being considered for operative or ablative treatment, MRI may change management, even for patients with a positive CT scan for liver metastatic disease as it may identify additional lesions.
- Routine surveillance of clinically well patients following completion of therapy is not appropriate and MBS-funded MRI liver should not be accessible for this purpose.

The Committee and OncCC members agreed that, while giving consideration to the development of a new item, best practice should be encouraged through discussion with the patient, giving consideration to the value of multidisciplinary team (MDT) input regarding patient management. The inclusion of the term "*properly constituted*", was discussed to describe MDTs with an appropriately skilled and broad membership base. It was agreed an MDT should comprise an appropriate mix of clinicians – including three separate specialists and that a "*properly constituted*" MDT should be formed under the auspices of a hospital or appropriately specialised facility. Members agreed on the need to appropriately define "*properly constituted*" prior to the implementation of a new service where this term is used in the item descriptor. It was noted the Specialist and Consultant Physician Consultation Clinical Committee (SCPCCC) is presently reviewing the role of MDTs and community case conferences for discharge planning.

The Committee and the OncCC discussed an appropriate item descriptor for the proposed service. It was agreed that inclusion of the requirement for the scan to be recommended by a properly constituted MDT liver or oncology meeting would sufficiently limit access to the scan thereby negating the need to implement a time period restriction for the service. It was agreed that a definition for a "*properly constituted*" MDT would be developed following the SCPCCC discussion of MDTs. The proposed item descriptor for the new service is given below.

The proposed item descriptor for the service is:

MRI Liver for suspected hepatic metastases.

Medicare benefits are only payable for this item if the service is provided to patients;

a) *when requested by specialist physician, surgeon, oncologist, radiation oncologist who deals with oncological disease; and*
    a. *the patient has a confirmed extra-hepatic malignancy, with absence of extra-hepatic malignant disease; and*
    b. *where liver CT is negative or inconclusive, and the identification of liver metastases would change management; and*
    c. *for staging where surgical resection or interventional techniques are contemplated to treat the liver metastases; or*
b) *where recommended by a properly constituted MDT liver or oncology meeting.*

The Committee agreed that, since the proposed item constitutes a new MBS service, it may need to be considered by the MSAC prior to listing on the MBS. Further economic modelling should be undertaken prior to a Schedule Fee being decided upon.

4.7.13 Recommendation 23: Amend the time period restriction for MRI for the evaluation of PIP breast implants to 1 service per 24-month period.

The Committee recommended the current time period restriction of one service per 12-month period for the evaluation of poly implant prosthese (PIP) breast implants (items 63501, 63502, 63504 and 63505) be changed to 1 service per 24-month period.

4.7.14 Rationale 23:

The Committee agreed a limit of one service per 24 months would be sufficient for the monitoring of implant progress and more closely aligns with the level of monitoring recommended by the Food and Drug Administration in the United States following an initial MRI at 3 years.

Additional considerations by the Committee regarding MRI services

Obstetric MRI

In addition to the above recommended new MRI services, the Committee noted its in-principle support regarding a new service for obstetric MRI.

The Committee noted a recent MSAC application regarding listing of MRI of the abdomen/pelvis of pregnant women of 18 weeks' gestation or less where a foetal central nervous system (CNS) abnormality is suspected. After reviewing the available evidence regarding the relative safety, clinical effectiveness and cost effectiveness of the proposed service, the MSAC concluded there was an acceptable level of evidence indicating an incremental benefit for the assessment of CNS anomalies using obstetric MRI over tertiary ultrasound. However, it advised the resulting MBS item should be restricted to the investigation of CNS anomalies only and did not support public funding of the test for women at 28 weeks' gestation or greater in whom placental adherence disorder is suspected (18). Although it did not seek to make formal recommendations regarding obstetric MRI, the Committee reiterated its in-principle support for obstetric MRI for expanded clinical indications (such as suspected placental adherence disorder).

MRI for patients with familial cancer syndromes

The Committee discussed the role of MRI for patients found to be positive for multiple endocrine neoplasia Type 1 (MEN-1) and other familial cancer syndromes related to mutations of the succinate dehydrogenase (SDH) gene.

The Committee noted stakeholder feedback suggesting a new MRI item for neuroendocrine tumours in patients found to be positive MEN-1. The Committee agreed the MSAC should review the indications for MRI for patients with familial cancer syndromes of which the SDH mutations and MEN-1 related tumours are highlighted examples.

MRI performed in the presence of MRI-conditional implanted electronic devices

The Committee considered whether the creation of a new item may be warranted for MRI performed in the presence of MRI-conditional pacemakers and other MRI-conditional electronic implanted devices requiring specific adaptations of protocol or scanner on grounds of patient safety.

The Committee suggested that a new MRI modifying item could be created for MRI performed in the presence of MRI-conditional pacemakers (and other MRI-conditional electronic implanted devices including neurostimulators for the brain, spinal cord, bladder and peripheral nerves).

The Committee proposed the following item descriptor for the item:

63XXX

SUBGROUP 22 - MODIFYING ITEMS

NOTE: Benefits in Subgroup 22 are only payable for modifying items where claimed simultaneously with MRI services. Modifiers for sedation and anaesthesia may not be claimed for the same service.

Modifying items for use with MAGNETIC RESONANCE IMAGING or MAGNETIC RESONANCE ANGIOGRAPHY performed under the professional supervision of an eligible provider at an eligible location where the service requested by a medical practitioner. Scan performed:

- involves the performing of an MRI on a patient for eligible Magnetic Resonance Imaging items with an implanted Cardiac Pacemaker, Cardiac Defibrillator, Neurostimulator, Vagal Nerve Stimulator, Spinal Cord Neurostimulator or Sacral Stimulator.
(See para DIQ of explanatory notes to this Category)

Fee: $ XXX Benefit: 75% = $ XXX 85% = $ XXX

Members considered that the use of both MRI and implantable devices has undergone substantial growth in recent history with the presence of implantable devices becoming increasingly widespread among patients being considered for MRI. It is estimated that the majority of patients with pacemakers will need at least one MRI during their lifetime (10).

The Committee agreed, when a clinician encounters a patient with an implantable device, MRI cannot be considered a routine procedure. Often the requesting doctor is not aware of the details of the device so is required to contact the specialist who implanted the device to obtain the specific device type or product number. Both the device and leads have to be checked for compatibility. Commonly, there are limitations with regard to the type of magnet, the energy and the coil that can be used. Each of these considerations increases the time taken to perform the scan. The devices also have to be switched to safe mode and be checked pre- and post-scanning.

The Committee noted that some providers may be reluctant to perform scans on patients with these devices due to the increased time and complexity involved. In some instances, this may pose an obstacle to accessing MRI services resulting in a disadvantage for these patients. The Committee considered that this issue could be addressed through the creation of a new MRI modifying item to remunerate providers for performing this service.

The Taskforce considered this advice from the Committee but agreed checking the MRI compatibility of implanted electronic devices constitutes an administrative service and not a medical service. Therefore the recommendation was not endorsed for consideration by Government.

MRI of the breasts

The Committee also noted the OncCC recommendation for MRI of the breasts for patients at high risk of breast cancer. However, it noted this has already been considered by the BIWG of the Committee.

The Committee, on advice from the BIWG, made the following recommendation relating to MRI of the breast:

Amend the item descriptor for breast MRI item 63464 and refer proposed changes to the MSAC Executive for consideration.

In line with contemporary medical evidence indicating which patients at high-risk of developing breast cancer stand to benefit most from MRI of the breast, the Committee recommended significant changes to the item descriptor for breast MRI item 63464. The proposed amendments seek to widen some subsets of the eligible patient population while restricting others. As such, the Committee recommended the proposed amendments be referred to the MSAC Executive for its consideration.

It is proposed that the following amended item descriptor for item 63464 be referred to the MSAC Executive:

BREAST MAGNETIC RESONANCE IMAGING performed under the professional supervision of an eligible provider at an eligible location where the patient is referred by a specialist, consultant physician or BreastScreen service clinical coordinator; and

(i) a dedicated breast coil is used; and

(ii) the request for scan identifies that the person is asymptomatic; and

(iii) the patient is aged 60 years or less; and

(iv) that the patient is at high risk of developing breast cancer, due to one of the following:

(A) genetic testing has identified the presence of a high risk breast cancer gene mutation either in them or in their first degree relative; or

(B) has a first or second degree relative diagnosed with breast cancer before age 45 years, plus another first or second degree relative on the same side of the family with bone or soft tissue sarcoma at age 45 years or younger; or

(C) has a personal history of breast cancer prior to age 50 years; or

(D) has a personal history of mantle radiation therapy; or

(E) has a lifetime risk estimation of > 30% or a 10-year absolute risk estimation > 5% using the Tyrer-Cuzick (IBIS Risk Evaluator) algorithm version 8 or later.

The service cannot be performed in conjunction with 55076 or 55079.

Additional details regarding the rationale for this recommendation are included in the *Report from the Diagnostic Imaging Clinical Committee – Breast Imaging*.

4.8 Co-claiming of radiologist attendances with diagnostic imaging

This Section addresses one particular aspect of diagnostic imaging practice—the appropriate circumstances for the claiming of a professional attendance in association with a diagnostic imaging service.

The issue of co-claiming professional attendance items with other MBS services has been considered in a whole-of-MBS context by the Taskforce. In its August 2016 report, the PRC discussed a range of issues related to the claiming of multiple items during a single episode of care. As part of that report, the PRC examined the claiming of attendance items with a procedure and put forward for public consultation draft principles and recommendations to control inappropriate co-claiming with procedures.

As with other clinical committees, the Committee was asked to consider, with reference to the PRC findings, the appropriate use of co-claiming with regard to diagnostic imaging, and a list of diagnostic imaging items which may or may not be appropriate to co-claim with an attendance item.

Background to review of co-claiming attendances by a radiologist with a diagnostic imaging item

The PRC August 2016 Report discussed a range of issues relating to the claiming of multiple items during a single episode of care. As part of that report, co-claiming of attendance items with a procedure was reviewed.

The Report put forward draft principles and recommendations to reduce inappropriate co-claiming of attendances with procedures.

In particular, the Committee was concerned to address the practice of 'routine' co-claiming of attendances even when there is no substantive 'attendance' component of the service. (p.20)

The Committee noted that there are a number of different settings where procedures and attendances are claimed together. Some of these are reasonable and others are not. (p.21)

Following public consultation on the PRC report, the Taskforce findings were:

The Taskforce was concerned that some specialists claim a subsequent specialist attendance when it is provided on the same day as a procedure, even when the procedure has been scheduled in advance and there is no real need for an attendance.

The Taskforce's view is that where an attendance is necessary for and intrinsic to a procedure, the attendance cannot be co-claimed as a separate service.

The Taskforce recommended prohibiting the co-claiming of subsequent specialist consultations with procedures that have already been agreed to take place.

Following on from the PRC report and Taskforce recommendations, the main purpose of this review was for the Committee to consider:

1. the development of principles in order to address concerns with the co-claiming of diagnostic imaging and consultation items by radiologists; and
2. a list of diagnostic imaging items which may or may not be appropriate to co-claim with an attendance item.

MBS context for diagnostic imaging and attendance items

In diagnostic imaging there is sometimes a lack of clear distinction between a referral for an opinion and a request for a service, which results in confusion about when it is permissible for a radiologist to claim an attendance item.

The legislation underpinning the payment of Medicare benefits, the DIST, the Health Insurance (General Medical Services Table) Regulation 2018 and the Health Insurance Regulations 1975 all differentiate between the circumstances where a referral or request must be in place. Relevant legislation and MBS Explanatory Notes are at Appendix F.

In order for a radiologist to provide an MBS eligible initial or subsequent specialist attendance under items 104 or 105 a valid referral must first be in place. Whereas, in order for a radiologist to perform an MBS eligible R-type diagnostic imaging service a valid request must be in place.

The legislation and accompanying MBS explanatory notes establish different minimal requirements for a referral and a request. The main differences are:

- a referral must contain any information about the patient's condition that the referring practitioner considers necessary, but a request does not have this same requirement.
- a request must provide a description of the diagnostic imaging service being requested, but a referral has no similar requirement.

The minimal differentiation between the two means that a 'request' for a diagnostic imaging service received by a radiologist may also meet the requirements of a valid referral. Therefore, in determining whether an attendance item could be co-claimed in addition to a diagnostic imaging service, the primary focus is the actual service delivered and involvement provided by a radiologist.

The Committee noted there are circumstances where it is appropriate for a radiologist attendance to be claimed under MBS items 104 and 105. However, they noted it would be a rare circumstance where a diagnostic (as opposed to an interventional) service would merit the co-claiming of an attendance.

When asked to consider in which circumstances a radiologist attendance might be eligible to be claimed under MBS items 104 or 105, the Committee noted a common situation where patients present without a clear understanding of the procedure they will be provided, in addition to its purpose and risks. In certain circumstances, radiologists are best placed to provide this type of detailed information to the patient and could validly claim a consultation in addition to the diagnostic procedure item. This would include complex interventional therapeutic procedures where, ordinarily, the patient would be seen by the radiologist at a time separate and prior to the intervention. In contrast, the Committee noted there are many less complex interventions completed under imaging guidance. This is where the radiologist is providing a technical service on behalf of another practitioner who has decided on the clinical necessity of the service and advised the patient of its purpose and risk (for example, most joint injections and many biopsies). These types of services should not ordinarily be co-claimed with a consultation.

The Committee identified a number of issues in relation to co-claiming of attendance items with diagnostic imaging items:

- In 2014/15, over two per cent of imaging was performed in conjunction with an attendance item.
- There has been significant growth in co-claiming in the last 10 years.
- In 2014/15, of the 1,888 radiologists who co-claimed consultation items with diagnostic imaging items, 10 per cent (188) provided 232,032 episodes (63 per cent) of the total number of co-claimed episodes.
- The practice of co-claiming attendance items varies considerably between providers.

There are many interventions done under imaging guidance that should not ordinarily be claimed in conjunction with an attendance item. Most joint injections and biopsies would fall into this category. Despite this, the co-claiming of attendance items is concentrated in musculoskeletal ultrasound services, which appears to be associated with the performance of joint injections.

MBS data on co-claiming of attendance items with diagnostic imaging items

In 2014/15, the total number of episodes where a specialist radiologist co-claimed a consultation item with a diagnostic imaging service represents 2.2 per cent of the total number of diagnostic imaging episodes provided by specialist radiologists (Table 51, below).

Table 51: Number of episodes, services and providers with proportion of services co-claimed with consultation items 104 or 105, 2014/15.

	Episodes		Services		Providers
Type	**Number**	**% of total**	**Number**	**% of total**	**Number**
Diagnostic imaging (Category 5) services only	16,326,974	97.7%	20,552,248	96.2%	3,908
Co-claiming 104/105 with diagnostic imaging item	368,482	2.2%	804,215	3.8%	1,888
Consultation item (104 or 105) only	16,445	0.1%	16,475	0.1%	1,158
Grand Total	16,711,901	100%	21,372,938	100.0%	3,921

Note: The total number of providers does not equal the sum of the providers who rendered either DI services only, consultation services only or who co-claimed. Providers may have rendered combinations of these on more than one occasion in the year. Also, the provider grand total is a count of individual provider numbers against which claims were made. The total number of radiologists in this table will be more than the actual number of radiologists who claimed in the year because an individual provider may have been allocated more than one provider number.

A small number of radiologists are responsible for a bulk of the co-claiming. Of the 1,888 radiologists who co-claimed consultations together with diagnostic imaging services in 2014/15:

- 10 per cent (188) provided 232,032 episodes (63 per cent) of the total number of co-claimed episodes,
- 80 per cent provided less than 243 episodes.
- 50 per cent provided less than 36 episodes.

Time series data covering the period 2005/06 to 2014/15 show that the number of co-claimed episodes has grown from 0.14 per cent to the 2.2 per cent in 2014/15. The number of radiologists now co-claiming has increased from 11.6 per cent to 27.2 per cent.

Table 52: Episodes and provider data for diagnostic imaging, consultation only or co-claiming of both, 2005/06 to 2014/15 for specialist radiologists.

	Episodes						Providers		
	Diagnostic imaging only		Consultation only		Co-claimed		Diagnostic imaging only	Consultation only	Co-claimed
Year	Number	% of total	Number	% of total	Number	% of total	Number	Number	Number
2005/06	10,475,881	99.83%	3,187	0.03%	15,120	0.14%	2,572	281	338
2006/07	11,025,444	99.79%	4,000	0.04%	19,609	0.18%	2,729	363	336
2007/08	11,500,057	99.68%	5,586	0.05%	31,167	0.27%	2,869	393	407
2008/09	12,126,087	99.55%	7,059	0.06%	48,221	0.40%	3,122	474	527
2009/10	12,554,778	99.32%	8,013	0.06%	78,365	0.62%	3,236	575	755
2010/11	13,111,873	98.98%	9,079	0.07%	125,372	0.95%	3,418	727	934
2011/12	14,062,338	98.57%	12,282	0.09%	192,282	1.35%	3,548	884	1,141
2012/13	14,730,431	98.23%	13,304	0.09%	252,616	1.68%	3,666	982	1,359
2013/14	15,641,207	97.97%	16,031	0.10%	307,369	1.93%	3,803	1,072	1,536
2014/15	16,326,974	97.70%	16,445	0.10%	368,482	2.20%	3,908	1,158	1,888

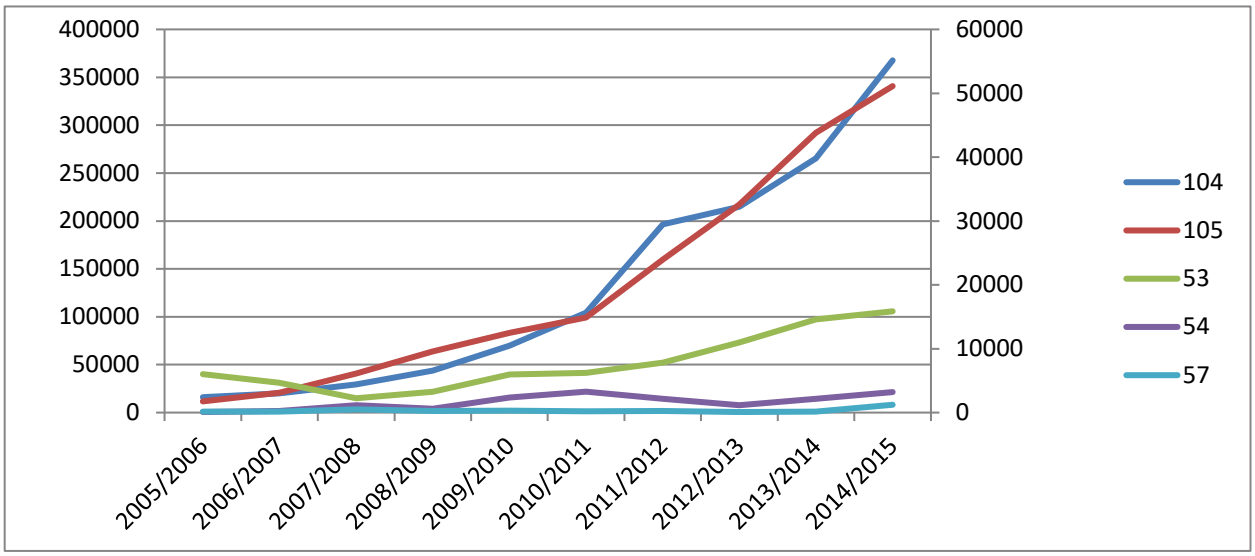
Data on radiologists claiming consultation items for the period 2005/06 to 2014/15 showed a sharp increase in specialist-referred consultations, items 104 and 105 from 2009/10. This growth appears to have coincided with removal of the item for joint injections (item 50124) from the MBS on 1 November 2009.

The growth in all consultation items has been dramatically greater than the growth in diagnostic imaging services generally (which has almost doubled since 2003/04: 11.8 million to 21.1 million). Initial specialist referred consultations claimed are now 23 times greater than in 2005/06, and subsequent specialist referred items are 29 times higher than in 2005/06.

In addition to the specialist attendance items 104 and 105, radiologists sometimes also claim professional attendance consultation items 52, 53, 54 and 57. In 2015/16, radiologists

provided 19,944 consultation services (items 52, 53, 54 and 57). These items are claimed for non-referred attendances by doctors other than general practitioners.

Figure 6: Total number of consultation items 104, 105, 53 and 54 claimed by specialist radiologists 2005/06 to 2014/15.



Notes:

Item 104 – Initial specialist consultation in a course of treatment.

Item 105 – Subsequent specialist consultation.

Item 53 – non-referred attendance 5 to 25 minutes.

Item 54 – non-referred attendance 25 to 45 minutes.

Item 57 – non-referred attendance – more than 45 minutes.

Data on the most commonly co-claimed item numbers show that musculoskeletal ultrasound services were the most commonly represented service. This is consistent with the theory that the services most likely being undertaken were joint injections. The DIST requires a radiologist to personally attend a patient and personally examine the patient during the performance of the musculoskeletal ultrasound scan and that this requirement is incorporated into the item.

Aside from musculoskeletal ultrasound, the most commonly co-claimed services were diagnostic radiology services.

Aside from CT item 57341, general ultrasound items 55054, 55070 and 55076, there were no other imaging items outside of musculoskeletal ultrasound and diagnostic radiology items in the top 20 diagnostic imaging items most commonly co-claimed.

With respect to CT-guidance item 57341 and general ultrasound-guidance item 55054, the Committee agreed that these are more likely used in association with more complex procedures that may require clinical input from the radiologist. Hence, in the opinion of the Committee, it may be appropriate to co-claim these items with an attendance item, when the radiologist's clinical assessment of the patient is sufficient to merit a separate attendance item. Generally, ultrasound or CT-guided joint injections would not meet this threshold.

The Committee also noted that breast imaging, including mammography and ultrasound items 55070 and 55076, also represented more complex procedures which may warrant clinical input from the radiologist and, in some circumstances, appropriate co-claiming of a consultation item.

Table 53: Twenty highest item numbers co-claimed with consultation items 104 or 105, 2015/16.

Item	Description	Number of 104 or 105 services claimed by radiologists in 2015/16	Number of 104 or 105 services claimed by all other specialists in 2015/16
55848	MUSCULOSKELETAL CROSS-SECTIONAL ECHOGRAPHY, in conjunction with a surgical procedure using interventional techniques (item 55850 includes a diagnostic scan)	113,557	4652
55850	MUSCULOSKELETAL CROSS-SECTIONAL ECHOGRAPHY, in conjunction with a surgical procedure using interventional techniques (includes a diagnostic scan)	108,930	1810
57341	COMPUTED TOMOGRAPHY, in conjunction with a surgical procedure using interventional techniques	104,829	0
55054	ULTRASONIC CROSS-SECTIONAL ECHOGRAPHY, in conjunction with a surgical procedure using interventional technology	89,070	8190
57703	X-RAY SHOULDER OR SCAPULA (R)	10,482	309
60100	TOMOGRAPHY OF ANY REGION (R) (Anaes.)	9,401	9
55808	SHOULDER OR UPPER ARM, 1 or both sides, ultrasound scan	9,322	1075
58909	SHOULDER OR UPPER ARM, 1 or both sides, ultrasound scan (R) (NK)	8,618	0
57521	X-RAY FOOT, ANKLE, LEG, KNEE OR FEMUR (R)	8,482	8
59300	MAMMOGRAPHY OF BOTH BREASTS, if there is a reason to suspect the presence of malignancy	8,002	0
61109	FLUOROSCOPY in an ANGIOGRAPHY SUITE	7,260	51
58503	CHEST (lung fields) by direct radiography (R)	6,903	7
59751	ARTHROGRAPHY, each joint, excluding the facet (zygapophyseal) joints of the spine, single or double contrast study, with or without preliminary plain films and with preparation and contrast injection - (R)	6,454	210
55070	BREAST, one, ultrasound scan	5,933	1015
55076	BREASTS, both, ultrasound scan	5,759	1543
57712	XRAY HIP JOINT (R)	5,348	1
55816	HIP OR GROIN, 1 or both sides, ultrasound scan	5,278	169
57509	XRAY HAND, WRIST, FOREARM, ELBOW OR HUMERUS (R)	4,344	3
55800	HAND OR WRIST, 1 or both sides, ultrasound scan	3,808	269
59303	MAMMOGRAPHY OF ONE BREAST	3,565	0

Personal attendance requirements for musculoskeletal ultrasound items

Musculoskeletal ultrasound services are subject to personal attendance requirements, where a medical practitioner responsible for the conduct and report of the examination personally attends during the imaging and personally examines the patient.

The Committee discussed the requirement for a radiologist to personally supervise musculoskeletal ultrasound services. For musculoskeletal ultrasound services the Committee agreed that the personal attendance of a medical practitioner is not required to ensure the diagnostic quality of the images produced and therefore the requirements for the supervision of these services should align with the requirements which apply to all other ultrasound services which can be provided under the supervision of a specialist or consultant physician. The personal attendance requirement for musculoskeletal ultrasound no longer reflects contemporary clinical practice.

The Taskforce considered the issue of specifying which health practitioners can assist radiologists to provide diagnostic imaging services. However, a separate process has been established via the Diagnostic Imaging Advisory Committee (the Department's standing consultative committee on diagnostic imaging) to review the level of supervision required to ensure such services are of high quality, safe and appropriate. Therefore, no further action should occur through the Review process.

4.8.1 Recommendation 24: Restrict radiologists' co-claiming attendance items with specified diagnostic imaging items.

The Committee agreed to restrict radiologist co-claiming of MBS attendance items, including specialist attendance items 104 and 105 and professional attendance consultation items 52, 53, 54 and 57, in conjunction with:

- All musculoskeletal ultrasound – MBS Category 5, Group I1, Subgroup 6 (item numbers 55800 – 55855)
- Diagnostic radiology items as follows:
    - Group I3, Subgroup 1 – Radiographic Examination of the Extremities (items 57506 to 57539)
    - Group I3, Subgroup 2 – Radiographic Examination of Shoulder and Pelvis (items 57700 to 57723)
    - Group I3, Subgroup 3 – Radiographic Examination of the Head (items 57901 to 57969)
    - Group I3, Subgroup 4 – Radiographic Examination of the Spine (items 58100 to 58127)
    - Group I3, Subgroup 5 – Bone Age Study and Skeletal Survey (items 58300

to 58308)

- Group I3, Subgroup 6 – Radiographic Examination of Thoracic Region (items 58500 to 58529)
- Group I3, Subgroup 7 – Radiographic Examination of Urinary Tract (items 58700 to 58723)
- Group I3, Subgroup 8 – Radiographic Examination of Alimentary Tract and Biliary System (items 58900 to 58905)
- Group I3, Subgroup 9 – Radiographic Examination of Localisation of Foreign Bodies (items 59103 to 59104)
- Group I3, Subgroup 14 – Tomography (items 60100 to 60101)

A full list of items impacted is at Appendix G.

4.8.2 Rationale 24:

The Committee noted that the increase in percentage of imaging being performed in conjunction with a consultation item has seen significant growth in the last 10 years. The practice varies considerably between providers, with a strong concentration in musculoskeletal ultrasound and diagnostic radiology services.

The Committee agreed it was appropriate to address this practice through the introduction of co-claiming restrictions.

An additional recommendation to the Department requested consideration of increasing the scheduled fee for items 55848 and 55850.

4.8.3 Recommendation 25: Prohibit the use of ultrasound item 55054 for joint injections.

The Committee recommends amending the item descriptor for ultrasound item 55054 and its NK equivalent (MBS Category 5, Group I1, Subgroup 1) to prohibit the use of this item for joint injection services. As a result, joint injections will only be able to be performed under items 55848 and 55850 and their NK equivalents.

4.8.4 Rationale 25:

The Committee agreed that introducing a restriction on the co-claiming of ultrasound items 55848 and 55850 and consultation or attendance items would only result in joint injection services shifting to item 55054. As a result it was agreed that item 55054 be amended to exclude joint injections services.

The DICC has recommended that the option of claiming a consultation item with item 55054 be retained.

Defining appropriate claiming of attendance items by radiologists

The PRC August 2016 Report outlined various scenarios for the '*different settings where procedures and attendances are claimed together*'. These scenarios concerned either primary care or specialist/consultant physician practice in a way that did not suitably apply to the circumstances of diagnostic imaging.

It was also noted that, while these principles are very high level for broad application, Clinical Committees might develop more detailed, discipline-specific rules on particular scenarios, consistent with these principles (p. 24).

The Committee addressed the PRC request to develop '*detailed, discipline-specific rules on particular scenarios, consistent with these principles*', as they apply to diagnostic imaging.

The Committee agreed that there are instances where it may be appropriate to claim an MBS attendance item by a radiologist in the course of their work. For example where a patient is referred to a radiologist for professional medical opinion and diagnostic or therapeutic management flowing on from that opinion, a consultation with the patient is clinically appropriate in the interests of clinical quality and patient safety.

4.8.5 Recommendation 26: Define appropriate claiming of attendance items by radiologists.

The Committee noted there are instances where it is appropriate to claim an MBS attendance item for an attendance by a radiologist. In order to assist radiologists to determine when, in the course of their work, it would be appropriate to claim an attendance item, a definition should be included in the explanatory notes of the DIST of the MBS.

4.8.6 Rationale 26:

The Committee agreed that that a radiologist should not claim a separate attendance item unless it meets certain criteria based on long-standing precepts about the elements of a professional medical consultation. For diagnostic imaging attendance items, the definition of a radiologist consultation would be:

A meaningful consultation occurs when a clinical radiologist utilises their medical knowledge, clinical acumen, technical skills and personal experience in clinical radiology to consult with a patient so as to alter, or potentially alter, the course of the patient's management in the best interests of the patient. The radiologist takes primary clinical responsibility for the management decisions made during the consultation (even if the decision is to proceed with the planned course of management). The consultation itself includes (like any other craft group's consultation) components of history taking; physical examination; discussion with the patient; formulation of management plans; and referral for additional opinion or tests.

Not all the components need be present in any one consultation, but presence of at least some is the hallmark that a meaningful consultation occurred. Differently from the non-imaging craft groups, a consultation with a clinical radiologist may include additional imaging used to assist decision making.

It is understood the PRC will undertake further work on this to ensure clarity and consistency across the MBS.

Consideration of a radiologist attendance item

The Committee considered stakeholder feedback suggesting a new item be created specifically for specialist attendance for radiology services. The proposed item would be co-claimed by radiologists in situations where a meaningful clinical consultation has occurred.

The Committee noted those attendance items currently claimed by radiologists are the same items that are claimed by other medical specialists for consultations and this may not reflect the fact that a consultation provided by a radiologist may differ from that of other specialist groups.

The Committee agreed there are instances in which radiologist attendance adds clinical value and it should be encouraged in appropriate circumstances.

The Committee agreed the creation of a separate item number for radiologist attendances should be given additional consideration.

4.9 Capital sensitivity measures (services performed on old equipment)

The capital sensitivity measure was implemented with the intention to improve the quality and safety of diagnostic imaging by encouraging newer, better quality equipment and reducing the exposure to unnecessary radiation. The measure has been applied to almost all items within the DIST, excluding PET and some angiography services.

Items within the DIST subject to the measure have two different schedule fees (i.e. 'mirror items') known as schedule K and schedule NK items. Schedule K items refer to services performed on newer/upgraded equipment and schedule NK items refer to services performed on older/aged equipment.

The Committee reviewed the measure in the overall context of quality, safety and access to diagnostic imaging services.

Background to the capital sensitivity measure

The Australian Government provides Medicare rebates for a range of diagnostic imaging services through the MBS. Almost all services listed in the DIST of the MBS, excluding PET services and some angiography services, have two different schedule fees. They are known as schedule K items and schedule NK items.

A schedule K item relates to diagnostic imaging services performed on newer or upgraded equipment. A schedule NK item relates to diagnostic imaging services performed on older or aged equipment, with approximately 50 per cent of the schedule K item fee applying. This is known as the capital sensitivity measure. The measure is intended to improve the quality of diagnostic imaging services by encouraging providers to upgrade or replace old equipment as appropriate.

Schedule NK items are typically identified by the addition of the letters 'NK' at the end of the item descriptor. For CT and angiography, the schedule K items are identified by the addition of the letter 'K' at the end of the item descriptor. The item descriptors for K and NK schedule items are otherwise identical (e.g. K and NK schedule items for a chest x-ray). An example of K and NK items are given in Table 54, below.

Table 54: Example of K and NK schedule items for a chest x-ray.

Item Type	MBS Item Number	MBS Item Descriptor	MBS Fee
K Schedule Item	58500	CHEST (lung fields) by direct radiography (NR)	$35.35

Item Type	MBS Item Number	MBS Item Descriptor	MBS Fee
NK Schedule Item	58502	CHEST (lung fields) by direct radiography (NR) (NK)	$17.70

The two key aspects of capital sensitivity, both of which concern the age of equipment, are:

- effective life age; and
- maximum extended life age.

The DIST states the age of equipment refers to 'the date the equipment was first installed in Australia' or 'if the equipment was imported as used equipment – the date of manufacture of the oldest component of the equipment'.

Equipment that has not been upgraded is classified by the 'effective life age' of the equipment. Equipment that has been upgraded is classified by the 'maximum extended life age' of the equipment. To avoid double counting, the time period specified for the 'maximum extended life age' includes the relevant number of years under the 'new effective life age'.

On 1 March 1999 the capital sensitivity measure was implemented for CT services. On 1 November 2001, it was implemented for angiography services.

The 2009/10 Federal Budget included the budget measure, '*Medicare Benefits Schedule – diagnostic imaging and pathology services – changes to fees for fully depreciated diagnostic imaging equipment*'. From 1 July 2011, almost all other diagnostic imaging services (with the exception of PET and some angiography services), have had the capital sensitivity measure applied.

Exemptions to capital sensitivity

There are a number of exemptions to the capital sensitivity measure which allow for diagnostic imaging equipment to be exempt from the 'effective life age' and 'maximum extend life age' criteria. These include:

- Automatic exemptions based solely on the location of the practice according to the Australian Bureau of Statistics Australian Standard Geographical Classification (ASGC).
- Exemptions granted upon application to the Secretary of the Department based on a number of factors, including:
    - The diagnostic imaging equipment does not exceed the maximum extended

life age by three years or more.
- The equipment is operated on a rare and sporadic basis.
- The equipment provides crucial patient access to diagnostic imaging services.
- Special circumstances including natural disasters and personal circumstances.

Table 55: Examples of remote area classifications (by Doctor Connect).

Geographical classification (using ASGC-RA[3])	Description	Example
RA1	Major Cities of Australia	Canberra, ACT
RA2	Inner Regional Australia	Shepparton, VIC
RA3	Outer Regional Australia	Darwin, NT
RA4	Remote Australia	Alice Springs, NT
RA5	Very Remote Australia	Yuendumu, NT

Medicare benefits are only payable for diagnostic imaging services if the premises or bases are registered and the equipment used to carry out the procedure is listed for those premises. The premises is registered with a Location Specific Practice Number (LSPN) and equipment registered on the Diagnostic Imaging Register. This means a DI provider must apply to the Department of Human Services (DHS) to register the premises or bases and equipment by submitting a *'Registration for a Location Specific Practice Number*' form to DHS. This LSPN is unique to each premises and registers each piece of diagnostic imaging equipment at that premises allowing DHS to monitor compliance of MBS items claimed.

After giving consideration to the measure in the overall context of quality, safety and access to diagnostic imaging services, the Committee recommended two changes to the MBS for imaging services performed on old equipment.

[3] Australian Standard Geographical Classification-Remoteness Area (ASGC-RA) is an Australian Bureau of Statistics (ABS) classification developed using 2006 census data.

4.9.1 Recommendation 27: Remove NK items and availability of MBS rebates for services on older equipment.

The Committee recommended the removal of all NK items from the DIST, which would restrict providers from claiming Medicare benefits for services provided on equipment exceeding the effective life age. A transition period will be provided so that practices have sufficient time to comply with the changes (i.e. 12 months).

4.9.2 Rationale 27:

The Committee identified a number of issues with the application of the current capital sensitivity measure:

1. The mirroring of almost all items within the DIST, excluding PET items, to accommodate NK items means there are over 800 items within the DIST, contributing to its complexity.
2. The number of NK items claimed is very small in comparison to K items, which indicates the measure has been effective in ensuring that older equipment has been replaced by new or upgraded equipment in metropolitan areas.
3. The implementation of the measure has resulted in the desired outcome of encouraging most providers of diagnostic imaging services to upgrade or replace outdated equipment.
4. It is difficult to determine the number of services provided in regional and remote areas using older equipment as many have been awarded a remote area exemption.

The exemptions for regional and remote areas appear to have ensured continued access to imaging services in these areas, albeit under some circumstances, on older and lower quality equipment.

The Committee was advised that the removal of the NK rebate for older equipment would be supported by both the Cardiac Services Clinical Committee and ObCC as a measure to underpin quality service provision in echocardiography and obstetric ultrasound.

MBS data on capital sensitivity

The data presented in Table 56 (below), indicates a small number of NK items were claimed during the 2014/15 financial year. However, it is important to note that, due to the exemption, providers would have been able to claim K items rather than NK items for any services provided in outer regional, remote and very remote areas. Therefore, this table does not show the total number of services claimed by rural and remote practices using older equipment. The data also shows patients receiving diagnostic imaging services on equipment that did not meet the identified effective life age.

Table 56: NK Items claimed by remoteness classification, 2014/15.

Area	Services/ Percentages	Ultrasound	CT	Diagnostic Radiology	Nuclear Medicine Imaging	MRI	Total
Major Cities	Number of Services	85,225	4,849	6,714	391	1,394	98,573
	Percentage of Total	1.3%	0.2%	0.1%	0.1%	0.2%	0.6%
Inner Regional	Number of Services	13,053	696	2,206	46	24	16,025
	Percentage of total	0.8%	0.1%	0.1%	0.0%	0.0%	0.3%
Outer Regional	Number of Services	7,206	204	557	17	14	7,999
	Percentage of Total	1.0%	0.1%	0.1%	0.0%	0.0%	0.4%
Remote	Number of services	706	45	32	1	3	787
	Percentage of Total	0.8%	0.2%	0.0%	0.0%	0.0%	0.3%
Very Remote	Number of Services	307	13	16	0	1	337
	Percentage of Total	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%
Not Known	Number of Services	9	0	1	0	0	10
	Percentage of Total	1.4%	0.0%	0.1%	0.0%	0.0%	0.5%
TOTAL	Number of Services	106,506	5,807	9,526	455	1,435	123,729
	Percentage of Total	1.2%	0.2%	0.1%	0.1%	0.1%	0.5%

The percentage of total represents the percentage of all modality services provided in that area.

The Committee determined that removing the NK items would have minimal impact on patient access and would support continued improvements to the quality and safety of diagnostic imaging services for patients. The Committee agreed that practices should be given an opportunity to upgrade equipment prior to the NK items being removed from the MBS.

These recommendations aim to reduce patients' exposure to unnecessary radiation, where relevant, by encouraging providers of diagnostic imaging services to upgrade their equipment thereby encouraging the same level of care for all patients, regardless of location or provider.

4.9.3 Recommendation 28: Remove remote area exemptions that currently allow practices to claim K items, with a transition period subject to meeting certain conditions

The Committee recommended the removal of the remote area exemptions (current legislative exemptions are at Appendix H) for practices with existing exemptions which allow them to claim a K item for services provided on equipment exceeding the effective life age. This would include a mechanism for affected practices in Outer Regional (RA3), Remote (RA4) and Very Remote (RA5) areas to apply to continue to claim the K items for a limited time period, subject to the practice having a proven plan to upgrade or replace older equipment (i.e. a subsequent 12 months after Recommendation 29).

4.9.4 Rationale 28:

Data on the age of equipment being used in areas with the remote area exemption was considered. There were a total of 33 pieces of diagnostic imaging equipment older than the effective life age at the time when the Committee analysed the data. Equipment ages were determined using details from the LSPN register. There were 615 pieces of equipment in the register that did not have dates available and were therefore excluded from the analysis. Data was considered on the locations of outer regional, remote and very remote equipment.

The practices located within the outer regional, remote and very remote areas are automatically flagged on the LSPN register as having remote exemption. While these practices are exempt from the measure and can claim K items regardless of age of the equipment being used, there were only 26 pieces of equipment that are older than the effective life age, compared with 1,231 that operate within the effective life age.

Table 57: Age of Equipment in areas of automatic exemptions (outer regional, remote and very remote) in 2016.

Equipment	Within Effective Life Age	Older than Effective Life age
Angiography	5	0
Fluoroscopy	29	1
CT	35	0
Nuclear Medicine	5	0
Mammography	5	0
MRI	1	0
OPG	29	2
Doppler (with Echo)	79	0
Doppler (Without Echo)	110	0
Non-Doppler (with Echo)	2	0
Non-Doppler (without Echo)	18	0
Transducer>7.5MHz	636	1
X-ray	277	22
TOTAL (Excludes 615 undetermined)	**1,231**	**26**

Table 58, below, shows the total services for the 2014/15 financial year for practices with an automatic exemption. This shows the number of services being performed on the equipment in Table 56 (noting that each of the 396 locations may have more than one type of equipment).

Table 58: Services provided in 2014/15 for automatic exemptions (outer regional, remote and very remote).

Number of Locations	Ultrasound	CT	Diagnostic Radiology	Nuclear Medicine	MRI	Total
396	412,396	134,822	592,900	19,044	31,007	1,190,169

The Department granted exemptions to approximately 25 practices in the inner regional areas up to 2014/15. Department exemptions are granted for inner regional locations and where:

- The imaging equipment does not exceed the maximum life age by three years or more.
- The equipment is operated on a rare and sporadic basis.
- The equipment provides crucial patient access to diagnostic imaging services.

Table 59, below, shows the total services for the 2014/15 financial year for practices with a Department-granted exemption. This data has been included to show the number of services being performed on the equipment in Table 57 (noting that each of the 25 locations may have more than one type of equipment).

Table 59: Inner regional Exemptions given by the Department in 2014/15.

Number of Practices	Ultrasound	CT	Diagnostic Radiology	Nuclear Medicine	MRI
25	24,000	5,345	39,633	283	0

4.10Rules and principles related to diagnostic imaging

As a component of its review, the Committee discussed specific rules and principles that apply to diagnostic imaging serviced provided under the MBS. These include the multiple services rules and item level restrictions on specific diagnostic imaging MBS items.

- Multiple services rules specify fee reductions for multiple diagnostic imaging services performed within a defined time period.
- Item level restrictions detail co-claiming restrictions between individual imaging items and groups of items.

Multiple services rules

During its discussion of this issue, the Committee considered a 2017 *Multiple Services Rules Summary Paper* provided by the RANZCR, detailing issues it considered should be addressed regarding the diagnostic imaging multiple services rules. The paper largely relates to the rules which reduce amount of benefits payable when multiple diagnostic imaging services (or diagnostic imaging services rendered with other items) are performed on the same day.

The Committee discussed issues around multiple services rules including fee payment reductions. The Committee agreed on in-principle support for the position of the RANZCR detailed in its *Multiple Services Rules Summary Paper*.

The complete paper can be found at Appendix I.

4.10.1 Recommendation 29: That the multiple services rules for diagnostic imaging services be simplified and streamlined to avoid disadvantage to patients.

The Committee recommended that the current multiple services rules be simplified, as proposed by the RANZCR in its *Multiple Services Rules Summary Paper* with the exception of reducing the discount on vascular ultrasound.

4.10.2 Rationale 29:

Modifying the multiple services rules in accordance to the suggestions from RANZCR, the Committee agreed, would improve the way clinicians interact with the MBS through simpler and more streamlined rules around multiple diagnostic imaging services performed within a defined time period.

The Committee noted the position of the RANZCR regarding proposed changes to multiple services rules. These include suggestions to reduce the discount for multiple vascular ultrasound examinations performed in a single day and remove the 50 per cent multiple services discount rule for musculoskeletal MRI.

The Committee agreed to support, in-principle, these recommended changes to multiple services rules. However, the Committee did not make specific recommendations to remove the 50 per cent multiple services discount rule for musculoskeletal MRI or remove the 3-hour separation rule for interventional ultrasound. The Committee also noted that since the

publication of the *Multiple Services Rules Summary Paper*, the RANZCR had re-considered its position regarding reducing the discount for multiple vascular ultrasounds performed on a single day and no longer supports a reduction.

The issue regarding existing multiple services rules was referred to the PRC for additional consideration.

Item level restrictions

The RANZCR paper also raised issues around rules in the DIST that restrict the payment of benefits to just one service provided at the same attendance, the same day or within a certain timeframe after another service has been provided. These rules are referred as 'item level restrictions'.

The Committee discussed issues around item level restrictions. Item level restrictions apply primarily to ultrasound services, with a mix of restrictions applying to the other imaging modalities.

How item level restrictions are described and their effect on benefits paid

Restrictions are described in item descriptors in a number of ways, the most common being through use of the phrase '*the service is not associated with a service to which…*', or '*not being a service associated with…*'.

The restriction can refer to:

- one or more items – e.g. *'not being a service associated with a service to which item 55130 or 55131 applies'*;
- one or more subgroups – e.g. most general ultrasound, obstetric and gynaecological ultrasound and musculoskeletal ultrasound is restricted with cardiac and vascular ultrasound (even if the examinations cover different areas);
- a group – e.g. item 61417 (a nuclear medicine imaging item for blood flow analysis), *'not being a service associated with a service to which another item in this group applies'*; or
- the DIST – e.g. the interventional CT items 57341 and 57345 state '*not being a service associated with a service to which another item in this table applies*'.

The effect of the '*not associated with'* restriction is that a Medicare benefit is payable for the item with the highest scheduled fee only for restricted items rendered on the same occasion by the same provider. For example, if the interventional CT item 57341 (attracting a scheduled fee of $470) were claimed with another CT item, such as 56401 (attracting a scheduled fee of $250), only item 57341 would be payable as it has a higher schedule fee.

For the purposes of determining whether or not services are rendered on the same occasion, the policy position of the DHS is that there needs to be a three-hour separation between two services in order for both items to attract Medicare benefits.

Other restrictions include but are not limited to:

- a benefit not being payable within 24 hours of a previous service – e.g. urinary tract ultrasound item 55038 and abdominal ultrasound item 55036; and
- limiting the payment of benefits to one, two or three scans of the same type within certain time periods, e.g. 12 months (e.g. certain MRI items).

Issues regarding item level restrictions

In some instances, patients and providers can have claims involving restricted items rejected. For some enquiries, the reason for the restriction can be easily explained because they are logical. For example, a benefit not being payable within 24 hours of a previous service for both the urinary tract (item 55038) and abdominal ultrasound (item 55036) is because item 55036 also includes a urinary tract examination.

However, there are other restrictions in which the rationale is less clear. For example, abdominal ultrasound and pelvic ultrasound (item 55065) cannot be claimed at the same time. Unlike the urinary tract, the pelvis is not included in the abdominal ultrasound item. The rationale for this restriction is unclear.

There are also blanket restrictions, such as:

- restrictions on the claiming of general ultrasound (except the interventional items), obstetric and gynaecological ultrasound and musculoskeletal ultrasound with either cardiac or vascular ultrasound. This restriction may be reasonable for some services (for example, examinations covering the same body area). However, the rationale for restricting services for non-contiguous parts of the body (for example, an ultrasound of the head in conjunction with echocardiography, or vascular ultrasound of the lower limb) is less clear.
- the restriction on cardiac ultrasound with vascular ultrasound, even where entirely different body areas are being examined.
- the restriction on vascular ultrasound with urological ultrasound (which covers prostate examinations only).
- the general interventional ultrasound items (items 55026 and 55054) not being claimable with other general ‘diagnostic’ ultrasound items. This is inconsistent with musculoskeletal ultrasound where there is an item for interventional ultrasound only, as well as an item that covers both an interventional and diagnostic ultrasound. It is also inconsistent with allowing the interventional items when provided in conjunction with cardiac or vascular ultrasound items.
- the restriction on any other diagnostic imaging item being claimed with the interventional CT items, items 57341 and 57345. A similar restriction applies to fluoroscopy interventional items 60506, 60507, 60509, 60510, 61109 and 61110.

Related issues

While not restrictions, some item descriptors:

- provide that the same item applies whether done unilaterally or bilaterally, and as such the item covers one or both sides – particularly with musculoskeletal ultrasound items.
- cover combinations of body areas, e.g. a three region spine CT scan covering the cervical, thoracic and lumbar spines.

There is anecdotal evidence to suggest that in some cases, patients may be asked to make separate appointments on separate days when bilateral musculoskeletal ultrasound scans have been requested so that two items can be claimed rather than one.

Table 60, below, shows the co-claiming data where a musculoskeletal ultrasound service was claimed at least twice within either 7 days, or between 8 and 30 days of an initial service. The highest number of repeat musculoskeletal ultrasound within 7 days of the initial service were seen for ultrasound of the shoulder or upper arm (4,507 services) and ultrasound of the hip or groin (2,671 services). However, the overall proportion of repeat services within 7 days was low (an average of 0.8 per cent of total services for the 2014/15 financial year).

Table 36: Repeat services for musculoskeletal ultrasound performed within 7 days or between 8 and 30 days of an initial service, 2014/15.

Item	Descriptor	Schedule Fee	Repeat services provided within 7 days	Repeat services provided between 8 and 30 days	Total services 2014/15	Percentage of total services where repeat service performed within 7 days
55800	Ultrasound hand or wrist R	$109.10	1,604	1,260	166,420	1.0
55801	Ultrasound hand or wrist R NK	$54.55			1	0.0
55802	Ultrasound hand or wrist NR	$37.85	14	33	2,450	0.6
55803	Ultrasound hand or wrist NR NK	$16.15		1	62	0.0
55804	Ultrasound forearm or elbow R	$109.10	676	613	82,276	0.8
55805	Ultrasound forearm or elbow R NK	$54.55			19	0.0
55806	Ultrasound forearm or elbow NR	$37.85	14	31	1,023	1.4
55807	Ultrasound forearm or elbow NR NK	$18.95	3	2	61	4.9
55808	Ultrasound shoulder or upper arm R	$109.10	4,507	4,223	462,316	1.0
55809	Ultrasound shoulder or upper arm R NK	$54.55			4	0.0
55810	Ultrasound shoulder or upper arm NR	$37.85	44	145	4,471	1.0
55811	Ultrasound shoulder or upper arm NR NK	$18.95			45	0.0

55816	Ultrasound hip or groin R	$109.10	2,671	2,322	227,309	1.2
55817	Ultrasound hip or groin R NK	$54.55			5	0.0
55818	Ultrasound hip or groin NR	$37.85	17	72	1,602	1.1
55819	Ultrasound hip or groin NR NK	$18.95		5	51	0.0
55824	Ultrasound buttock or thigh R	$109.10	169	298	32,280	0.5
55825	Ultrasound buttock or thigh R NK	$54.55			73	0.0
55826	Ultrasound buttock or thigh NR	$37.85	6	40	682	0.9
55827	Ultrasound buttock or thigh NR NK	$18.95		4	47	0.0
55828	Ultrasound knee R	$109.10	1,136	690	129,029	0.9
55829	Ultrasound knee NK	$54.55			1	0.0
55830	Ultrasound knee NR	$37.85	43	120	2,288	1.9
55831	Ultrasound knee NR NK	$18.95			13	0.0
55832	Ultrasound lower leg R	$109.10	163	267	34,503	0.5
55833	Ultrasound lower leg NK	$54.55			4	0.0
55834	Ultrasound lower leg NR	$37.85	38	38	1,215	3.1
55835	Ultrasound lower leg NR NK	$18.95			26	0.0
55836	Ultrasound ankle or hind foot R	$109.10	1,238	943	151,033	0.8
55837	Ultrasound ankle or hind foot NK	$54.55			3	0.0
55838	Ultrasound ankle or hind foot NR	$37.85	24	81	2,375	1.0
55839	Ultrasound ankle or hind foot NR NK	$18.95		1	19	0.0
55840	Ultrasound mid or fore foot R	$109.10	1,239	795	111,720	1.1
55841	Ultrasound mid or fore foot NK	$54.55			3	0.0
55842	Ultrasound mid or fore foot NR	$37.85	8	20	1,075	0.7
55843	Ultrasound mid or fore foot NR NK	$18.95	1		17	5.9

Impact on patients of restricted items

Patients can be inconvenienced by the operation of item level restrictions when they are asked to return on another day for an additional service, as:

- attending multiple appointments results in additional expense for the patient and their family members or carers, for example where people need to pay for travel, take time away from work, or obtain care for dependents in order to attend an appointment;
- patients who attend providers who do not bulk bill may be required to pay multiple sets of upfront fees, which can be a significant financial challenge; and

- some patients may choose not to return for required imaging to diagnose or manage an illness. In particular, elderly, sick or frail patients or those who live in rural or remote areas who need to travel some distance to receive services, may be at risk.

The Committee considered specific examples of item level restrictions that have been anecdotally identified as having caused difficulties for patients and agreed that it is inappropriate to ask a patient to return for an additional test on a subsequent day when it can be provided in a single attendance. Where possible, a complete medical service should be provided in order to minimise the stress and inconvenience for patients that may result from having to attend on separate days.

As detailed above, existing co-claiming restrictions highlighted as frequently causing difficulty for both providers and patients were discussed.

One such example is the co-claiming restriction that prevents ultrasound of the pelvis from being co-claimed at the same time as ultrasound of the abdomen.

Table 61, below, shows the co-claiming data indicating the number of times items for pelvis ultrasound (55065 and 55067) were co-claimed in the 7 days following a service for items for abdominal ultrasound (55014 and 55036) during the 2-year period from 2014/15 to 2015/16. This data shows that 1.1 per cent of services for item 55065 were provided within a week of an abdominal ultrasound.

Table 61: Number of services for pelvis ultrasound items 55065 and 55067 claimed alone or 1 to 7 days following abdominal ultrasound during 2014/15 to 2015/16.

Item	Co-claiming type	Services
55065	Alone	1,707,359
55065	1-7 days following abdominal ultrasound	19,015
55067	Alone	2,659
55067	1-7 days following abdominal ultrasound	4

Another example of a co-claiming restriction where the reason for the restriction is unclear is the restriction on co-claiming items for general ultrasound, obstetric and gynaecological with musculoskeletal ultrasound cardiac or vascular ultrasound.

Table 62, below, shows the co-claiming data indicating the number of times items for general, obstetrics and gynaecology or musculoskeletal ultrasound (excluding interventional items and lower limb ultrasound) were claimed on the same day or in the 1-7 days following a cardiac and vascular ultrasound during the 2-year period from 2014/15 to 2015/16.

Table 372: Number of services for general, obstetrics and gynaecology or musculoskeletal ultrasound (excluding interventional items and lower limb ultrasound) claimed in the 7 days following a cardiac and vascular ultrasound during the 2-year period from 2014/15 to 2015/16.

	episode type		
Item	Number of services for general, obstetrics and gynaecology or musculoskeletal ultrasound performed on the same day	Number of services for general, obstetrics and gynaecology or musculoskeletal ultrasound performed in the following 1-7 days	Total services
55113	144	923	1,440,394
55114	38	190	289,199
55115	13	26	113,875
55116	2	5	508,241
55117			18,370
55118	1	1	31,186
55119			183
55120			163
55121			93
55122			1
55123			3
55125			60
55130			1,464
55131			3
55135		1	6,773
55223			47
55224	2		185
55226	2		105
55227	27	49	1,229
55228			76
55229			4
55230			5
55232		1	32
55233			165
55235			130
55248	93	140	20,004
55252	501	453	47,046
55274	1,238	1,765	296,367
55276	1,685	2,180	242,334
55278	807	3,409	135,308
55280	58	5	3,647
55282	38	7	1,085
55284	48	12	900
55292	22	11	19,467
55294	19	8	7,357

This data above shows that a very small percentage (approximately 0.4 per cent, on average) of services for these items were provided in the week following a service for cardiac or vascular ultrasound. However, the Committee noted that there is no clinical rationale for the restriction to exist and it may cause patient inconvenience in the small proportion of instances in which there may be a reason to perform the services at the same time.

The Committee also considered the current co-claiming restriction that prevents items for interventional CT (items 57341 and 57345) and interventional fluoroscopy (items 60506, 60507, 60509, 60510, 61109 and 61110) from being claimed on the same day as a diagnostic imaging service of any type.

Tables 63 and 64, below, show the co-claiming data for items for CT with an intervention and interventional fluoroscopy respectively, claimed on the same day or in the 1-7 days after any other diagnostic imaging service.

Table 383: Number of services for CT with an intervention (items 57341 and 57345) claimed on the same day or in the following 1-7 days after another diagnostic imaging procedure, during the 2-year period from 2014/15 to 2016/17.

Item	Co-claiming type	Services
57341	Alone	405,769
57341	Same day	1,980
57341	1-7 days following another diagnostic imaging service	14,725
57345	Alone	422
57345	Same day	23
57345	1-7 days following another diagnostic imaging service	10

The data shown above in Table 63 indicates approximately 4 per cent of claims for item 57341 were made in the week following another diagnostic imaging service (including same day services) during the period described.

Table 64: Number of services for fluoroscopy with an intervention (items 60506, 60507, 60509 and 60510) claimed on the same day or in the following 1-7 days after another diagnostic imaging procedure, during the 2-year period from 2014/15 to 2016/17.

Item	Co-claiming type	Services
60506	Alone	181,450
60506	Same day	165
60506	1-7 days following another diagnostic imaging service	18
60507	Alone	159
60509	Alone	110,601
60509	Same day	78
60509	1-7 days following another diagnostic imaging service	21
60510	Alone	216

The data shown above in Table 64 indicates approximately 0.1 per cent of claims for item 60506 (fluoroscopy in conjunction with a surgical procedure lasting less than 1 hour) were in the week following another diagnostic imaging service during the period described (including same day services). For item 50609 (fluoroscopy in conjunction with a surgical procedure lasting 1 hour or more), less than 0.1 per cent of services were performed in the week after another diagnostic imaging service.

Following consideration of the above information, the Committee decided to make four recommendations related to item level restrictions for specific combinations of diagnostic imaging MBS items. These are detailed below.

4.10.3 Recommendation 30: Amend the item descriptors for items 55065 and 55067 (ultrasound of the pelvis) to remove co-claiming restrictions with items 55014 and 55036 (ultrasound of the abdomen).

The Committee recommended that the item descriptors for items 55065 and 55067 (ultrasound of the pelvis) be amended to remove co-claiming restrictions with items 55014 and 55036 (ultrasound of the abdomen) so that these services can be provided on the same day, if clinically necessary. This recommendation would apply to the NK equivalents of each item until such time as a decision is made regarding capital sensitivity measures.

4.10.4 Rationale 30:

At present, benefits are not payable for ultrasounds of both the abdomen and pelvis within 24 hours of each other. This issue has been raised by the RANZCR which highlighted the issue of female patients with abdominal or pelvic symptoms being referred for both ultrasound examinations. Frequently, transvaginal sonography of the pelvis is required which requires considerable setup, preparation and the presence of a chaperone.

The Committee considered possible approaches to address this issue. The Committee favoured the option of allowing both abdominal and pelvic ultrasound to be claimed during the same attendance. In this case, the general multiple services rules (discussed in another paper in this session) would apply and the second scan would be reduced by $5 under those current rules.

This approach would eliminate the need for providers to ask patients to attend on separate days for abdominal and pelvic ultrasounds as both scans could be performed during the same attendance.

4.10.5 Recommendation 31: Amend the item descriptors for general ultrasound (not including interventional items), obstetric and gynaecological and musculoskeletal ultrasound to remove co-claiming restrictions with cardiac or vascular ultrasound (with the exception of lower leg ultrasound).

The Committee recommended that the item descriptors for general ultrasound (excluding interventional ultrasound items), obstetric and gynaecological and musculoskeletal

ultrasound be amended to permit co-claiming of these items with cardiac or vascular ultrasound (55113 to 55125 and 55220 to 55296). The Committee agreed that the co-claiming restriction for lower leg ultrasound for pain in the calf or popliteal region should be retained.

4.10.6 Rationale 31:

Under the current restriction, general, obstetric, gynaecological and musculoskeletal ultrasounds cannot be claimed with vascular or cardiac ultrasound. This may cause problems in instances where there is clinical necessity to perform ultrasounds on more than one of these areas.

The Committee favoured the option of allowing these items to be claimed at the same time for ultrasound examinations of different body areas. The general multiple services would apply and under current fee payment reduction rules, the rebate for the second scan would be reduced by five dollars.

However, the Committee discussed the situation of a patient with calf pain who may be able to receive both a doppler ultrasound to exclude DVT and a musculoskeletal ultrasound if the co-claiming restriction were removed entirely. Additionally, where there is a differential diagnosis of ruptured Baker's cyst, the Committee agreed it is inappropriate to claim for both vascular and musculoskeletal ultrasound in this instance. Therefore, the Committee decided to remove the restriction except for lower limb ultrasound for suspected DVT with a musculoskeletal ultrasound. In this instance, the co-claiming restriction would be retained.

4.10.7 Recommendation 32: Amend the item descriptors for interventional CT (items 57341 and 57345) and interventional fluoroscopy (items 60506, 60507, 60509, 60510, 61109 and 61110) to change the restriction with a diagnostic imaging service of any type to only services in their own subgroups, with the exception of diagnostic CT and interventional CT, for which claiming on the same day should be permitted.

The Committee recommended that the item descriptors for interventional CT (items 57341 and 57345) and interventional fluoroscopy (items 60506, 60507, 60509, 60510, 61109 and 61110) be amended to narrow the restrictions on interventional CT items and interventional fluoroscopy items with a diagnostic imaging service of any type to only services in their own subgroup. The exception to this would be diagnostic CT and interventional CT for which same-day co-claiming should be allowed.

4.10.8 Rationale 32:

Under the current restriction, benefits are not payable for either an interventional CT or a fluoroscopy item with another diagnostic imaging service of any modality (i.e. any ultrasound, other CT, diagnostic radiology, nuclear medicine or MRI scan).

The Committee discussed the examples of ultrasound-guided abscess drainage done on the same day as a CT or biopsy of a lung lesion diagnosed with CT. Another example includes lumbar disc protrusion where a perineural injection may be indicated and the patient has to be sent home in pain and come back on another day for the injection. During discussions regarding this scenario, however, the Committee acknowledged clinical guidelines related to the role of imaging and subsequent interventions in the management of low back pain.

To enable the interventional CT or interventional fluoroscopy items to be claimed in conjunction with a diagnostic imaging service of another type, the Committee recommended the restriction be amended to only restrict co-claiming of imaging services within their own subgroup. However, the Committee noted specific clinical examples in which a diagnostic CT may need to be done on the same day as a CT-guided interventional procedure (e.g. CT-guided biopsy of a suspected malignancy when a diagnostic CT had been performed earlier on the same day) and agreed co-claiming of these services should be permitted.

4.10.9 Recommendation 33: Create separate items for unilateral and bilateral musculoskeletal ultrasound items with an appropriate fee for each.

The Committee recommended that separate items be created for unilateral and bilateral musculoskeletal ultrasound items 55800, 55801, 55802, 55803, 55804, 55805, 55806, 55807, 55808, 55809, 55810, 55811, 55816, 55817, 55818, 55819, 55824, 55825, 55826, 55827, 55828, 55829, 55830, 55831, 55832, 55833, 55834, 55835, 55836, 55837, 55838, 55839, 55840, 55841, 55842, 55843 with an appropriate fee for each (with a higher fee for bilateral scans).

4.10.10 Rationale 33:

At present, musculoskeletal ultrasound items incorporate unilateral and bilateral scans in the same item with the same fee, irrespective of whether a unilateral or bilateral scan is undertaken.

The Committee noted advice that the Department has received enquiries in relation to patients being required to make separate appointments on separate days when bilateral musculoskeletal ultrasound scans have been requested, so that two items can be claimed rather than one. This practice is associated with increased inconvenience for patients and is not clinically appropriate if both sides can be scanned during the one attendance.

In order to avoid patients being asked to attend separate appointments for bilateral scans, the Committee considered whether musculoskeletal ultrasound items could be split into two separate items – one for unilateral ultrasound scans and another for bilateral scans.

The Committee agreed that when bilateral musculoskeletal ultrasounds are being undertaken, both sides should be scanned on the same day. Specifically, the new bilateral items should state in the Explanatory Notes, that in clinical best practice, targeted ultrasound of the contralateral side may performed for comparison and if done, comprises an integral part of the diagnostic ultrasound.

The Committee agreed with the option of creating separate items for unilateral and bilateral scans with an appropriate fee for each. Restrictions would need to be placed on the unilateral scan so that it could not be claimed twice in place of a bilateral ultrasound item. The Committee agreed that appropriate item descriptors and schedule fees would need to be developed for each respective item.

The Committee discussed retaining the current fee for the unilateral items and increasing the fee for bilateral scans relative to this. The Committee agreed this recommendation would be expected to result in a decrease in overall costs as providers won't be incentivised to bring patients back on a separate day when performing bilateral scans.

The issues associated with multiple services rules and item level restrictions applied to diagnostic imaging services described above were referred to the PRC for further consideration.

It is anticipated that, when developed, principles regarding these issues will undergo consultation as a component of the *Second Report from the PRC*.

Imaging test substitution

Imaging test substitution refers to the situation where a radiologist substitutes a requested imaging test for what they regard as a more appropriate test, given the clinical picture.

The Committee considered the current rules around imaging test substitution by radiologists.

Section 16B (10A) of the Health Insurance Act allows imaging test substitution when:

- the provider forms the opinion that it would be more appropriate in the diagnosis of the person's condition to render the substituted service than the service requested; and
- the substituted service would be accepted by the general body of specialists or consultant physicians in the specialty practised by the providing practitioner as more appropriate in the diagnosis of the person's condition than the service requested; and
- before providing the substituted service, the providing practitioner has either consulted the person who made the original request, or taken all reasonable steps to consult that person; and
- the substituted service is a service in relation to which a Medicare benefit is payable regardless of whether the service is rendered on the request of a specialist or a consultant physician. Note: the substituted service must not be a service where the Medicare benefit is only payable if the service is rendered on the request of a specialist or consultant physician.
- the following services cannot be substituted:
- R-type services which in their descriptions (such as most R-type items in General Ultrasound and items 59300 and 59303) state that a referral is required;

- MRI services that require a specialist referral; and
- services not able to be requested by the original requesting practitioner.

The Committee considered clinical instances in which imaging test substitution may be viewed as appropriate. The radiation exposure optimisation doctrine of the International Commission on Radiological Protection places an obligation on medical practitioners to ensure that every medical radiation exposure is justified. Broadly, 'clinical justification' refers to the principle that 'the anticipated diagnostic benefits of a radiation exposure outweigh the anticipated risks of the exposure'.

The Committee noted additional factors that significantly affect the ultimate election of one particular imaging investigation as 'most optimal'. These are:

- patient age and gender;
- pregnancy status;
- existence of absolute contraindications;
- existence of relative contraindications;
- clinical logistics factors (such as the inability of a young child to keep still for sufficiently long);
- presence of technical confounders (such as prior metallic implants);
- presence of confounding comorbidities (such as currently active cancer, or unhealed fractures);
- patient's own preference;
- local expertise and availability.

The Committee agreed clinical decision support tools are desirable and will be of great assistance to referrers when they are implemented in the requesting of imaging. Clinical decision support tools will act as the first-line filter for capturing inappropriate requests. However, clinical decision support cannot address all clinical scenarios, therefore the skills and knowledge of a clinical radiologist will still be required to ensure that patients undergo the right imaging examination for the clinical picture.

The Committee considered the following proposed principles for imaging test substitution:

- The patient with a particular clinical problem or question should undergo the most appropriate diagnostic imaging examination (or a combination of examinations) to address the problem or answer the clinical question safely, effectively, accurately, and in the least number of steps; with due regard to radiation protection, patient preference, and locally available skills and resources.
- It is clinically suboptimal for the patient to undergo an inappropriate or futile imaging examination.
- The clinical radiologist is the suitably trained and logically positioned medical specialist to arrest inappropriately requested examinations and to substitute appropriate tests.
- The imaging investigation that the radiologist substitutes should be the most appropriate to answer the clinical question at hand, given considerations of

radiation safety, patient safety, accuracy of imaging test for the differential diagnosis or clinical task at hand, patient preference and local expertise.

- The substitution should happen on direct instruction by the radiologist, with appropriate documentation of the justification for the substitution.
- Such substitution should be allowed to happen at the clinical judgement and discretion of the supervising radiologist unless an exception occurs.
- The substitution shall be discussed with the patient, including the justification and the reasons for the substitution and be acceptable to the patient.
- Paperless and electronic request forms should have a mechanism for the referrer to indicate that the referrer does not wish for substitution to happen without prior consultation with the referrer.
- Investigation substitution can continue to occur following direct contact between the referrer and the supervising radiologist and case discussion.
- Efforts to educate the referrer should continue to be promoted and advocated. This should include decision support algorithms based on valid clinical evidence.

The Committee agreed that interactions between the radiologist and the patient form an important component of imaging test substitution. However, this process can be time-consuming as there are many factors to consider in imaging test selection. These include clinical indications, absolute and relative contraindications, availability of services, time, cost, and patient convenience. These factors would need to be considered in implementing changes to imaging service substitution rules.

After consideration of the issue of imaging test substation, the Committee agreed the issue of imaging service substitution should be referred to PRC for further consideration.

Self-referral for imaging among specialists

Self-referral for imaging services refers to the ability of specialists from particular disciplines to request imaging services which they are able to perform themselves.

The Committee discussed the appropriateness of the current referred (R) and non-referred (NR) item structure and fee differential for diagnostic imaging services.

Key issues discussed included:

- Whether or not self-referred services, with lower fees, are in line with the principle of ‘same service, same fee’.
- The importance of a report uploaded to the patient’s electronic health record, to validate the clinical relevance of the service.
- Qualifications and accreditation requirements to ensure safe and clinically appropriate services.
- The need to consider the impact of current arrangements and any proposed changes on rural and remote GP practices.
- The greater importance of service quality over patient convenience, and the importance of patient access to reports and information about the qualifications of providers.

To support appropriate use and promote consistency the Committee agreed to develop principles based on the following framework:

- Non-requested services (including self-referred services) should attract a lesser rebate than requested services.
- There should be a clinical question to be answered from the non-requested service.
- All providers should be appropriately qualified to provide the service.
- A report on non-requested services should be kept in the patient record and uploaded to the MyHealth record.

The following general principles were developed in relation to self-referral for imaging:

1. Diagnostic imaging services rendered by practitioners on their own patients (self-determined services) do not need a separate report provided to a requesting practitioner. As such, self-determined services should attract a lower rebate than requested diagnostic imaging services.
2. Before a Medicare funded diagnostic imaging service is rendered, there must be a clinical reason for the service noted on the request form for a requested service and within the patient record for a self-determined service.
3. All practitioners providing Medicare funded diagnostic imaging services must be have qualifications and credentials relevant to, and appropriate for, the services they are providing.
4. The findings of a self-determined service must be recorded in the patient's record.
5. Diagnostic imaging reports and the findings of any self-determined services should be made available in the patient's Myhealth record.

The Committee also considered the relative fees for self-determined services versus requested services. For example, the fee for a self-determined may be set at a specific percentage of the fee for a requested service.

After considering the issue of self-referral for imaging services, the Committee agreed to refer this issue to the PRC for additional consideration.

4.11Other recommendations

During its review, the Committee reviewed a number of items that were identified as not having been captured during the Committee's review of items to date. These included five items which were referred from other clinical committees. In addition, the Committee developed recommendations relating to diagnostic imaging services that don't fit within the categories detailed above. These ungrouped recommendations are detailed below.

Items referred from other committees

Table 65, below, shows the standard Medicare data for five items referred to the Committee from other committees within the MBS Review. Two of these items were referred from the Gastroenterology Clinical Committee and a further three were referred from the Thoracic Surgery Clinical Committee who also reviewed the same items concurrently.

Table 39: Standard Medicare data and referring committee for items referred to the Committee for review, 2016/17.

Item Number	Descriptor	Schedule Fee	Benefits 2016/2017	Services 2016/2017	5-year service CAGR	Referring committee
30488	SMALL BOWEL INTUBATION as an independent procedure (Anaes.)	$90.00	$24,790	324	1.87%	Gastroenterology Clinical Committee
30495	PERCUTANEOUS BILIARY DILATATION for biliary stricture, using interventional imaging techniques - but not including imaging	$787.30	$67,802.05	121	14.68%	Gastroenterology Clinical Committee
38800	Thoracic cavity, aspiration of, for diagnostic purposes, not being a service associated with a service to which item 38803 applies	$38.50	31,068	1,056	-0.04%	Thoracic Surgery Clinical Committee
38803	Thoracic cavity, aspiration of, with therapeutic drainage (paracentesis), with or without diagnostic sample	$76.90	237,218	4,230	0.87%	Thoracic Surgery Clinical Committee
38812	Percutaneous needle biopsy of lung (Anaes.)	$209.15	648,324	3,816	9.80%	Thoracic Surgery Clinical Committee

The Committee considered the appropriateness of these services in contemporary clinical practice and agreed none of the referred items are obsolete. The Committee did not note any concerns regarding the safety or clinical validity of any of these services. It did, however, note the poor remuneration associated with items 38800 and 38803 and questioned whether the cost of the consumable equipment needed to perform these services would outweigh the associated fee. It agreed the PRC should consider this issue in a broader

context.

After reviewing these items, the Committee did not recommend any changes to the current items.

Additionally, eight items relating to fluoroscopy (60500, 60501, 60503, 60504, 60506, 60507, 60509 and 60510) and two items for air insufflation during video fluoroscopy (59763 and 59764) were referred to the Taskforce which reviewed the items directly without change.

Ungrouped issues considered

The Committee discussed other issues around diagnostic imaging services which did not fit into any of the review groups and made the following recommendations:

4.11.1 Recommendation 34: Create a new item for DEXA for patients with breast cancer being treated with aromatase inhibitor therapy, to be referred to MSAC for consideration.

The Committee recommended that a new item be created for DEXA for patients with breast cancer who are receiving aromatase inhibitor therapy. The Committee agreed this should be referred to the MSAC for consideration.

4.11.2 Rationale 34:

The Committee discussed a past MSAC application requesting MBS listing of DEXA for patients with breast cancer who are being treated with aromatase inhibitor therapy, a class of agents known to cause loss of bone density.

The Committee discussed the previous MSAC applications for the service. Members noted limited evidence for the relative efficacy of the anti-resorptive drugs prescribed in the setting of DEXA-proven low bone density. However, since the previous MSAC application had been denied, additional evidence had come to light which the Committee agreed, may change the outcome of the application if a subsequent referral is made to MSAC.

Members therefore recommended that this matter be referred to the MSAC Executive and that the Committee would support a re-review.

4.11.3 Recommendation 35: Split the current item 57350 (CT spiral angiography) into three items with no frequency restriction with the requirement that GPs must consult with a specialist in order to request the service, and remove the word “spiral” from the item descriptor.

The Committee recommended the current MBS item for CT spiral angiography (item 57350) be separated into three distinct items for different anatomical areas. The Committee recommended no frequency restriction be applied to the new items. Additionally, the Committee recommended the removal of the word “spiral” from the item descriptor for CT angiography items.

The three proposed items would provide CT angiography services for:

1. *Arch of aorta, carotid arteries, vertebral arteries and their branches (head and neck);*
2. *Ascending and descending Aorta common iliac and abdominal branches including upper limbs (chest, abdomen and upper limbs); and*
3. *Descending aorta, pelvic vessels (aorto-iliac segment) and lower limbs.*

4.11.4 Rationale 35:

The Committee discussed the current items for CT spiral angiography (57350, 57351, 57355 and 57356) and examined the standard Medicare data for the item (Tables 66 and 67 below). The Committee noted the growth in the number of services for item 57350 (5-year CAGR for services of 7 per cent) but agreed this is appropriate and reflects contemporary medical practice.

Table 66: Service and benefits data for CT spiral angiography item 57350, 2011/12 and 2016/17.

Item Number	Descriptor	Schedule Fee	Benefits 2016/2017	Services 2011/2012	Services 2016/2017	5-year CAGR
57350	COMPUTED TOMOGRAPHY - spiral angiography with intravenous contrast medium, including any scans performed before intravenous contrast injection - 1 or more spiral data acquisitions, including image editing, and maximum intensity projections or 3 dimensional surface shaded display, with hardcopy recording of multiple projections, where: (a) the service is not a service to which another item in this group applies; and (b) the service is performed for the exclusion of arterial stenosis, occlusion, aneurysm or embolism; and (c) the service has not been performed on the same patient within the previous 12 months; and (d) the service is not a study performed to image the coronary arteries (R) (K) (Anaes.)	$510.00	$50,432,288.85	79,602	111,697	7.01%

Table 7: State-by-state Medicare service data per 100,000 population for CT spiral angiography item 57350, 2016-17.

Item Number	Descriptor	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	Total

57350	CT - spiral angiography (R) (K) (Anaes.)	533	403	448	567	291	441	336	231	451

The Committee discussed alternative angiogram techniques (e.g. conventional and magnetic resonance angiography) and the role of CT angiography compared to these other modalities. It also noted the related item for CT spiral angiography for pulmonary embolism (CTPA) (item 57351).

The Committee noted the current time period restriction of one service per 12 months for item 57350. The Committee agreed this restriction may disadvantage some patients (e.g. for patients who undergo angiogram but subsequently have a stroke or patients with artery dissections who need monitoring). In these instances, more than one scan may be clinically necessary within a 12-month period. The Committee agreed that the frequency of services for the new items should be dictated by clinical need and recommended no frequency restriction be applied.

The Committee acknowledged that as the current item is all-encompassing, there is no way of knowing which anatomical region is being examined by CT angiography. Therefore, it is difficult to determine whether over-servicing is occurring. Splitting the item into different anatomical areas would allow for the collection of more granular data regarding use of the items. This would advise future decisions about the application of frequency restrictions.

The Committee deliberated extensively regarding the appropriate split for item 57350 and discussed various options for how this might be optimised. Advice was sought from the Neurosurgery and Neurology Clinical Committee (NNCC) of the Taskforce regarding the appropriateness of various time period restrictions for CT angiography of the head and neck. Additionally, advice was sought from the Vascular Clinical Committee (VCC) regarding the appropriateness of various proposed time period restrictions for non-pulmonary embolism CT angiography services.

The advice received from the NNCC suggested an appropriate limit of four services per 12-month period for CT angiography of the head and neck. The examples of instances where repeat services may be necessary within a 12-month period cited by the NNCC included monitoring of vasospasm following sub-arachnoid haemorrhage, monitoring for arterial dissection and in preference to magnetic resonance angiography for certain types of aneurysms.

The advice received from the VCC supported an anatomically-based split of the current item and recommended the aorto-iliac segment should be included as a component of the lower limb examination. It also suggested that, as they are functionally contiguous from a vascular perspective, the abdomen and pelvis should be included in the one item. The VCC suggested a limit of four services per 12-month period for chest, abdomen, pelvis and upper limb and one service per 12-month period for aorto-iliac and lower limb CT angiography. It suggested the inclusion of a caveat to the latter where the one service per 12-month period limit

applies "*except where there has been a clinical development which requires urgent diagnosis and management*". Furthermore, the VCC suggested a change to hard-copy recording requirements to include digital recordings.

Additional input was provided by the PRC which considered the appropriateness of the proposed item descriptors in the context of concerns around over-servicing of CT angiography. The PRC supported the proposed split of the current item. However, to address concerns regarding over-servicing for body areas other than the pulmonary and coronary vessels, the PRC advised the new items should be restricted to specialist requesting only. The current items for CT pulmonary angiography and CT coronary angiography could continue to be requested by GPs. Furthermore, the PRC recommended the frequency restriction for the item be removed as restricting requesting of the item to specialists only should serve to address over-servicing. The PRC agreed this measure would serve to reduce the number of low-value CT angiography services without causing any inadvertent disadvantage to those patients who stand to benefit from the service.

The Committee considered the advice from these other clinical committees and agreed to recommend splitting the current item into three separate items for different anatomical areas to accommodate different clinical circumstances. The Committee considered the advice of the PRC to restrict requesting of the new items to specialists only. However, the Committee agreed GPs should continue to be able to request the service noting patients may be disadvantaged if requesting is restricted to specialists only. The Committee noted specific clinical examples of instances in which GP requesting of CT angiography would be beneficial to patients; e.g. if a head CT shows a possible cerebral aneurysm and a cerebral CT angiogram is required. To mitigate against over servicing of CT angiography, it is recommended that a requirement be added to the item descriptor for GPs to discuss the case with a specialist in order to request the service. The GP would be required to refer the patient to a specialist when there may be no abnormality present. Additionally, patients with transient ischaemic attacks may require CT carotid angiogram which may show no stenosis and not require input from a specialist or a critical stenosis requiring urgent management.

The Committee recommended the frequency restriction for the new items be removed to permit use when deemed clinically necessary by the requesting clinician.

In considering the appropriateness of the item descriptor for item 57350 in contemporary medical practice, the Committee agreed the word "spiral" is outdated and recommended its removal from the item descriptor for items 57350, 57351, 57355 and 57356 and any new MBS items created for CT angiography.

4.11.5 Recommendation 36: Remove the word "lifetime" from the DIST with regards to time period restrictions on imaging services for cancer patients.

The Committee noted a limited number of MBS items which use the terminology "*benefits are payable once in a patient's lifetime*" to describe a one service limit. Examples include MRI of the breasts for breast implant-associated anaplastic large cell lymphoma (items

63547 and 63548). The Committee recommended this term be removed and replaced with wording to the effect of "*benefits are payable once only per patient*".

4.11.6 Rationale 36:

The Committee agreed the use of the word "lifetime" is inappropriate when referring to patients who may have a significantly shortened lifespan and recommended this reference be removed from the MBS. The Committee did not recommend any change to the time period restriction of one service only for these items. However, it recommended the wording be changed to use more appropriate language to reflect the restriction.

4.11.7 Recommendation 37: Consideration be given to the issue of high out-of-pocket costs associated with diagnostic imaging, especially in the context of a cancer diagnosis.

The Committee recommended additional work be done to address the issue of high out-of-pocket costs associated with diagnostic imaging, especially in the setting of serious and complex illnesses such as cancer.

4.11.8 Rationale 37:

As a component of its review, the Committee discussed the high out-of-pocket costs associated with serious and complex illnesses. Diagnostic imaging forms an integral component of the diagnosis and monitoring of diseases including cancer and can be associated with a significant financial burden for patients and their families which may even deter patients from seeking appropriate care. In some cases, multiple follow up tests using plain x-ray or ultrasound are required, as well as more expensive tests such as CT and MRI. Some patients may also require image-guided biopsy.

The Committee noted concern among cancer-specific stakeholder groups that some patients may choose not to undergo regular follow up imaging investigations due to the out-of-pocket costs associated with these tests. Members agreed additional work should be undertaken to address this important issue to ensure all patients with a diagnosis of cancer receive high-quality, clinically-appropriate care and access to cost-effective diagnostic imaging services.

4.11.9 Recommendation 38: The Department consider the development of clinical decision support tools for the requesting of diagnostic imaging (including CT of the cervical spine, CT of the head, musculoskeletal ultrasound).

The Committee recommended additional work be undertaken to consider the development of clinical decision support tools to guide appropriate requesting in diagnostic imaging. The Committee highlighted examples of diagnostic imaging services in which clinical decision support may be particularly useful. These include CT of the cervical spine, CT of the head and musculoskeletal ultrasound.

4.11.10 Rationale 38:

The Committee considered the importance of clinical decision support tools to guide appropriate requesting of diagnostic imaging among requestors. The Committee agreed such tools can improve patient care and enhance the quality and safety of practice. Clinical decision support can help ensure the right test is requested at the right time. The Committee noted it may be particularly useful in the requesting of CT as patients are subjected to radiation.

5. Impact statement

This section of the report summarises the Committee's recommendations in plain English and is intended to support and encourage consumers to comment on the recommendations.

Both consumers and clinicians are expected to benefit from the Committee's recommendations because they address concerns regarding consumer safety and quality of care and take steps to simplify the MBS and make it easier to use and understand. Consumer access to services was considered for each recommendation. The Committee also considered the impact of each recommendation on requestor and provider groups to ensure that changes were reasonable and fair. However, if the Committee identified evidence of potential item misuse or safety concerns, recommendations were made to encourage best practice, in line with the overarching purpose of the MBS Review.

The Committee expects these recommendations will support appropriate item requesting resulting in the provision of clinically indicated, high-quality care that reflects modern best practice.

Imaging of the head and neck

The Committee's recommendations on head and neck imaging seek to improve the way providers interact with the MBS by combining items for similar services to simplify and streamline the MBS. The Committee's recommendation for the research into requesting practices for head CT by GPs following the introduction of GP-requested MRI services is expected to benefit patients by ensuring appropriate requesting of head imaging services in the future. Patients are expected to benefit from the Committee's recommendation related to neck ultrasound by ensuring this test is only done when clinically appropriate.

Imaging of the spine and pelvis

After reviewing each item, the Committee decided not to recommend any changes to MBS items relating to imaging of the spine and pelvis. They did, however, recommend primary care research into when and why GPs request CT scans of the cervical spine (neck) for patients. As no changes to the MBS are recommended for these items, there is not expected to be any impact on consumers or providers from this recommendation. Improved data collection will assist in the development of health policies and management of the MBS into the future.

Imaging of the upper and lower limbs

The Committee recommended splitting the existing MBS item for CT of the extremities into separate items for the individual upper and lower limb joints and for the soft tissue of the upper and lower limbs. This recommendation primarily relates to improving the collection of

Medicare data on the use of CT scanning for of the limbs. Therefore, this recommendation is not expected to impact upon consumers.

Imaging of the organs of the chest, abdomen and pelvis

After reviewing each item, the Committee decided to make two recommendations relating to ultrasound of the breasts and chest wall. These recommendations are aimed at ensuring equitable and fair Medicare rebates for imaging of the breasts, including in the setting of scanning of the scar and associated tissues following mastectomy. These recommendations are expected to positively impact consumers as they encourage ongoing surveillance of the mastectomy site using ultrasound scanning. They are also expected to positively impact the way requestors and service providers interact with the MBS, by ensuring the most appropriate MBS item is selected for the clinical circumstances.

General and whole-body imaging

The Committee made two recommendations, relating to ultrasound of the musculoskeletal system, in conjunction with an interventional procedure. These recommendations are aimed at ensuring appropriate use of these items and preventing providers from subjecting patients to unnecessary ultrasound examinations. The recommendation to update the terminology used in the item descriptors for these items is aimed at modernising the MBS by using more contemporary medical language.

Obstetric imaging

The Committee made six recommendations relating to obstetric imaging services, after considering the advice of the ObCC. It is anticipated there will be minimal impact on patients and providers resulting from the proposed changes. These recommendations do not seek to alter the course of treatment or impact upon access to diagnostic imaging tests. Rather, they seek to simplify the MBS, streamline the process by which pregnancy ultrasound items are claimed under the MBS and provide for more equitable fees for providers of these services and their patients.

Recommendations relating to the introduction of new items are made where the service is already being provided and claimed under another item number. Similarly, where the recommendation is made to remove items from the MBS, the service will be shifted to another item without affecting access to the service. In each of these instances, the fee for the proposed item more accurately reflects the time and complexity of the service being provided than at present. Patients and providers alike will therefore benefit from the proposed changes.

MRI

Both consumers and clinicians are expected to benefit from the Committee's recommendations. These recommendations address concerns regarding inappropriate

claiming and seek to both simplify and modernise the MBS for both providers and consumers.

Consumer access to services was considered for each recommendation. The Committee also considered the impact of each recommendation on requestor and provider groups to ensure that changes were reasonable and fair. However, if the Committee identified evidence of potential item misuse or safety concerns, recommendations were made to encourage best practice, in line with the overarching purpose of the MBS Review.

The Committee expects these recommendations to support appropriate item requesting and the provision of clinically indicated, high-quality care that reflects modern best practice. This report details the Committee's review of MBS items related to specific MRI services.

After reviewing each item, the Committee decided to make seven recommendations relating to MBS-listed MRI services. These recommendations are aimed at ensuring appropriate access to MRI for patients and optimising the way providers are remunerated for providing MRI services listed on the MBS. They are expected to positively impact the way requestors and service providers interact with the MBS, by ensuring the provision of up-to-date MRI services appropriate for the clinical circumstances.

The Committee made several recommendations for new MRI services in line with advice from other Taskforce clinical committees. These recommendations are aimed at allowing patients access to Medicare-funded MRI services to improve surgical planning and enhance patient outcomes. The Committee expects these recommendations will support appropriate item requesting and the provision of clinically indicated, high-quality care that reflects modern best practice.

Co-claiming of attendance items by radiologists with diagnostic imaging services

The introduction of radiologist co-claiming restrictions between all diagnostic radiology and musculoskeletal ultrasound MBS items (excluding radiographic examination of the breasts) with attendance items and professional attendance items is expected to have a minimal impact on providers and patients. The restrictions do not limit access to diagnostic imaging services and are targeted at areas where there is evidence of inappropriate co-claiming.

The restrictions do not impact diagnostic imaging services where co-claiming of an attendance item by a radiologist is appropriate.

The recommendation to define appropriate claiming of attendance items by radiologist should help to provide greater clarity for both providers and patients on the circumstances under which an MBS claimable attendance has occurred.

Capital sensitivity

It is anticipated there will be minimal impact on most providers as utilisation of NK items (imaging services performed on older equipment) is presently very low. Any impact is

expected to be mitigated by the inclusion of transition periods and temporary exemptions for outer regional, remote and very remote practices.

There is also a potential benefit to patients following the transition period. It is expected that most providers who continue to use older diagnostic imaging machines will seek to upgrade or replace their current equipment in order to be able to continue claiming services on the MBS. This will result in the provision of improved diagnostic imaging services for the patients of those providers through the better image quality and diagnostic value afforded by newer equipment. This will particularly improve access to modern diagnostic imaging equipment for patients in regional or remote areas. The anticipated outcomes of these changes align with the Taskforce's goals of affordable and universal access to best practice health services that provide the greatest possible value for the individual and the health system.

Additionally, removing NK items from the MBS will reduce (by almost half) the number of items listed. This simplification of the MBS will make it easier for providers to identify which items to claim, thereby reducing the administrative burden associated with the process.

Other recommendations

The Committee's recommendation for a new item for DEXA for patients with breast cancer who are taking aromatase inhibitors aims to benefit patients by reducing out-of-pocket costs associated with diagnostic imaging for bone density.

The recommended change to the current item for CT angiography (pictures of blood vessels using a special dye) is intended to reduce the number of low-value services by requiring GPs consult with a specialist before the item is requested, ensuring the test is available to those patients who need it, as often as clinically necessary.

The recommendation to remove the word "lifetime" from the MBS with reference to patients with cancer seeks to update the MBS through the use of more contemporary and socially appropriate language.

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7. Glossary

Term	Description
ACEM	Australasian College of Emergency Medicine
ASGC	Australian Standard Geographical Classification, Australian Bureau of Statistics
CAGR	Compound annual growth rate or the average annual growth rate over a specified time period.
Change	When referring to an item, 'change' describes when the item and/or its services will be affected by the recommendations. This could result from a range of recommendations, such as: (i) specific recommendations that affect the services provided by changing item descriptors or explanatory notes; (ii) the consolidation of item numbers; and (iii) splitting item numbers (for example, splitting the current services provided across two or more items).
Committee	Diagnostic Imaging Clinical Committee
CRC	Colorectal carcinoma
CT	Computed tomography
CTA	Computer tomography angiogram
CTCA	Computed tomography coronary angiogram
CTPA	Computer tomography pulmonary angiogram
Delete	Describes when an item is recommended for removal from the MBS and its services will no longer be provided under the MBS.
Department, The	Australian Government Department of Health
DHS	Australian Government Department of Human Services
DIST	Diagnostic Imaging Services Table
DVT	Deep vein thrombosis
ECC	Endocrinology Clinical Committee

FY	Financial year
GCC	Gynaecology Clinical Committee
HCC	Hepatocellular carcinoma
High-value care	Services of proven efficacy reflecting current best medical practice, or for which the potential benefit to consumers exceeds the risk and costs.
Inappropriate use / misuse	The use of MBS services for purposes other than those intended. This includes a range of behaviours, from failing to adhere to particular item descriptors or rules through to deliberate fraud.
K	Schedule K items relate to diagnostic imaging services performed on newer or upgraded equipment
KIWG	Knee Imaging Working Group
Low-value care	Services that evidence suggests confer no or very little benefit to consumers; or for which the risk of harm exceeds the likely benefit; or, more broadly, where the added costs of services do not provide proportional added benefits.
LSPN	Location Specific Practice Number
MBS	Medicare Benefits Schedule
MBS item	An administrative object listed in the MBS and used for the purposes of claiming and paying Medicare benefits, consisting of an item number, service descriptor and supporting information, schedule fee and Medicare benefits.
MBS service	The actual medical consultation, procedure or test to which the relevant MBS item refers.
MDT	Multidisciplinary team
Misuse (of MBS item)	The use of MBS services for purposes other than those intended. This includes a range of behaviours, from failing to adhere to particular item descriptors or rules through to deliberate fraud.
MRI	Magnetic resonance imaging
MSAC	Medical Services Advisory Committee
New service	Describes when a new service has been recommended, with a new item number. In most circumstances, new services will need to go through the MSAC. It is worth noting that implementation of the recommendation may result in more or fewer item numbers than specifically stated.

NK	Schedule NK items relate to diagnostic imaging services performed on older or aged equipment.
NR	Not requested
No change or leave unchanged	Describes when the services provided under these items will not be changed or affected by the recommendations. This does not rule out small changes in item descriptors (for example, references to other items, which may have changed as a result of the MBS Review or prior reviews).
ObCC	Obstetrics Clinical Committee
Obsolete services / items	Services that should no longer be performed as they do not represent current clinical best practice and have been superseded by superior tests or procedures.
OncCC	Oncology Clinical Committee
OPG	Orthopantomogram
PRC	Principles and Rules Committee
PBS	Pharmaceutical Benefits Scheme
PE	Pulmonary embolism
PET	Positive emission tomography
R	Requested – Medicare benefits are not payable for diagnostic imaging services that are classified as R-type (requested) services unless, prior to commencing the relevant service, the practitioner receives a signed and dated request from a requesting practitioner who determined the service was necessary.
RACGP	Royal Australian College of General Practitioners
RANZCR	Royal Australian and New Zealand College of Radiologists
RA1	Location categories – major cities of Australia
RA2	Location categories – inner regional Australia
RA3	Location categories – outer regional Australia
RA4	Location categories – remote Australia
RA5	Location categories – very remote Australia
Services average annual growth	The average growth per year, over five years to 2014/15, in utilisation of services. Also known as the compound annual growth rate (CAGR).

The Committee	The Diagnostic Imaging Clinical Committee of the MBS Review
The Taskforce	The MBS Review Taskforce
Total benefits	Total benefits paid in 2014/15 unless otherwise specified.

Appendix A Summary for consumers

The following tables describe the medical service, the recommendations of the clinical experts and why the recommendations have been made.

Imaging of the head and neck

Recommendation 1: Consolidate plain radiography items for petrous temporal bone with mastoid bone.

Items	What they do	Committee recommendation	What would be different	Why
57906, 57909, 57923 and 57920	X-ray of two regions of the skull – the petrous temporal and mastoids bones.	Consolidate four items into one new MBS item.	The MBS will be simpler. No impact on patients is expected.	To reduce the number of MBS items by combining items that have relatively low service volumes and where similar services are covered by multiple items. These changes will not impact consumers.

Recommendation 2: Consolidate plain radiography items for sinuses and facial bones.

Items	What they do	Committee recommendation	What would be different	Why
57903, 57912, 57917 and 57926	X-ray of two regions of the skull – the petrous temporal and mastoids bones.	Consolidate four items into one new MBS item.	The MBS will be simpler. No impact on patients is expected.	To reduce the number of MBS items by combining items that have relatively low service volumes and where similar services are covered by multiple items. These changes will not impact consumers.

Recommendation 3: The Department to facilitate primary care research into why the introduction of GP-requested head MRI hasn't resulted in a greater reduction in the requesting of head CT.

Items	What they do	Committee recommendation	What would be different	Why
N/A	Items for imaging of the head using CT or MRI.	That research be undertaken to determine why the addition of items for MRI of the head that can be requested by GPs hasn't resulted in a larger decrease in the number of head CTs requested by GPs.	Research would occur to determine the reasons behind requesting patterns for head imaging in primary care.	Understanding the reasons for requesting of imaging services would enable future programs aimed at improving appropriate requesting to be better targeted.

Recommendation 4: Add explanatory notes about appropriate indications for neck ultrasound to items.

Items	What they do	Committee recommendation	What would be different	Why
55011, 55013, 55032 and 55033	Thyroid ultrasound services are provided by endocrinologists or endocrine surgeons to assist best practice.	Retain thyroid ultrasound items 55032 and 55033, with some additional explanatory notes about appropriate and inappropriate indications for neck ultrasound.	Additional explanatory notes would make sure the appropriate test is requested for the patient.	To ensure patients have the appropriate test and to minimise the number of unnecessary tests performed.

Recommendation 5: The Department to facilitate primary care research into GP requesting practices for CT of the cervical spine.

Items	What they do	Committee recommendation	What would be different	Why
N/A	Items for CT of the neck (cervical spine).	That research be undertaken to better understand GP requesting of CT of the neck.	Research would occur to determine the reasons behind requesting patterns for neck imaging in primary care.	Understanding the reasons for requesting of imaging services would enable future programs aimed at improving appropriate requesting to be better targeted.

Imaging of the upper and lower limbs

Recommendation 6*:* The Department to facilitate formal research into the use of upper and lower limb ultrasound services, giving consideration to the development of clinical decision support tools for requesting clinicians.

Items	What they do	Committee recommendation	What would be different	Why
N/A	Items for ultrasound of the arms and legs (limbs).	That research be undertaken to better understand clinician requesting of ultrasound of the limbs.	Research would occur to determine the reasons behind requesting patterns for ultrasound of the limbs.	Understanding the current use of ultrasound of the limbs would enable future programs aimed at improving appropriate requesting (including clinical decision support) to be better targeted.

Recommendation 7: Split items for CT scan of extremities without contrast into separate items for CT of the upper limb and lower limb (excluding knee).

Items	What they do	Committee recommendation	What would be different	Why
56619 and 56659	Diagnostic imaging of extremities (arms and legs) using computed tomography without contrast.	Replace this item number with two new items – one for the upper limb (arm) and one for the lower limb (leg), excluding the knee which has separate item number.	Two new MBS item numbers would replace 56619. Each descriptor would specify whether the item is for the upper or lower limb (excluding knee).	The current item does not provide data on which limb is scanned. This makes it hard to collect data on which area is being imaged or how appropriate the test is. Having this data will help assess the appropriateness of the requesting of the item. These changes will not impact consumers.

Imaging of the organs of the chest, abdomen and pelvis

Recommendation 8: Amend the item descriptor for items for both breast ultrasound to include the indication of "including post-mastectomy surveillance".

Item	What they do	Committee recommendation	What would be different	Why
55061, 55062, 55076 and 55079	Ultrasound scan of both breasts.	That the words "including post-mastectomy surveillance" be added to the item descriptor.	When doing an ultrasound scan of the surgical site in a patient who has undergone mastectomy, the provider would have to use the both breast ultrasound item for all women, regardless of whether they have had a breast removed. This change would prevent the use of the one breast ultrasound MBS item and the chest or abdominal wall ultrasound item.	It takes approximately the same amount of time and effort to scan a breast as it does to scan the surgical site in a woman who has previously had a mastectomy. Therefore the same item should be used for all women. This would stop providers from inappropriately claiming one breast ultrasound and one chest wall ultrasound for women who only have one breast.

Recommendation 9: Amend the item descriptor for items for non-referred ultrasound of the chest or abdominal wall to include the words "not to be claimed in association with any other breast ultrasound item within the MBS".

Item	What they do	Committee recommendation	What would be different	Why
55814 and 55815	Ultrasound of the chest or abdominal wall.	That the words "not to be claimed in association with any other breast ultrasound item within the MBS" be added to the item descriptor.	If a woman requires an ultrasound scan of her chest wall, the breast ultrasound MBS items would be used and not the chest or abdominal wall ultrasound item. This would stop providers from claiming one breast and one chest wall when they are scanning both sides of the chest in a woman.	Medicare data indicates that some providers may be inappropriately claiming one breast ultrasound and one chest wall ultrasound to gain a higher Medicare rebate than if they claimed the item for both breasts. This change would prevent this from happing as the chest or abdominal wall ultrasound item could not be claimed with another breast ultrasound item.

General and whole-body imaging

Recommendation 10: Amend the item descriptor for items for musculoskeletal cross-sectional echography in conjunction with a surgical procedure using interventional techniques, inclusive of a diagnostic musculoskeletal ultrasound service) to state that a complete diagnostic musculoskeletal ultrasound report must be produced for the musculoskeletal ultrasound component of the item, each time the service is provided.

Item	What they do	Committee recommendation	What would be different	Why
55850 and 55851	Ultrasound scan of a part of the musculoskeletal system in conjunction with a surgical procedure, with an included diagnostic musculoskeletal ultrasound.	That the item descriptor be amended to state that a complete diagnostic ultrasound report must be produced each time the service is provided.	Every time a provider performs the service, they must produce a complete diagnostic ultrasound report, equivalent to that produced for a stand-alone diagnostic musculoskeletal ultrasound service.	If a patient does not require a diagnostic musculoskeletal ultrasound, item 55848 should be used, as this item does not include an additional diagnostic musculoskeletal ultrasound. To justify any use of item 55850, the provider will have to produce a complete diagnostic ultrasound report.

Recommendation 11: Amend the item descriptors for items for musculoskeletal cross-sectional echography in conjunction with a surgical procedure using interventional techniques) and musculoskeletal cross-sectional echography in conjunction with a surgical procedure using interventional techniques, inclusive of a diagnostic musculoskeletal ultrasound service, so that the term "echography" is replaced with "ultrasound" and "diagnostic ultrasound" respectively.

Items	What they do	Committee recommendation	What would be different	Why
55848, 55849, 55850 and 55851	Ultrasound scan of a part of the musculoskeletal system in conjunction with a surgical procedure.	That the item descriptors be amended so that the term "echography" is replaced with "ultrasound" for item 55848 and "diagnostic ultrasound" for item 55850.	The description of the tests in the MBS would be "ultrasound" or "diagnostic ultrasound" instead of "echography".	The term "echography" is outdated and changing it to "diagnostic ultrasound" would serve to modernise the MBS.

Obstetric imaging

Recommendation 12: Remove the list of clinical indications from the item descriptors of <12 weeks and 12-16 weeks pregnancy ultrasound items.

Items	What they do	Committee recommendation	What would be different	Why
55700, 55701, 55702, 55703, 55704, 55705, 55710 and 55711	Ultrasound scan of the pelvis or abdomen in pregnancy.	That the long list of health problems (or potential health problems) the foetus or mother must suffer from (or be at risk of) to have the test, should be removed.	Women would not need to meet any of the specified clinical indications to have the scan.	The MBS will be simpler.

Recommendation 13: Remove the list of clinical indications from the item descriptors of >22 weeks pregnancy ultrasound items and allow access to these items to rely on clinical judgement.

Items	What they do	Committee recommendation	What would be different	Why
55718, 55722, 55723 and 55726	Ultrasound scan in a pregnancy with a gestation 22 weeks or greater.	That the long list of health problems (or potential health problems) the foetus or mother must suffer from (or be at risk of) to have the test, should be removed.	Women would not need to meet any of the specified clinical indications to have the scan.	The MBS will be simpler.

Recommendation 14: Prohibit claiming of items for pelvis ultrasound for solely pregnancy-related services.

Item	What they do	Committee recommendation	What would be different	Why
55065, 55067, 55068 and 55069	Ultrasound scan of the pelvis.	That the item descriptor for these items should be changed to stop the item being used for pregnancy-related scans. The items could still be used for pregnant women with non-pregnancy-related problems requiring pelvic ultrasound (e.g. suspected ovarian torsion).	If a doctor suspects a patient may be having a miscarriage, they may request an ultrasound of the pelvis. Under the new recommendation, this item will not be used for pregnancy-related scans as there are other ultrasound items available for pregnancy.	This pelvis ultrasound item was not intended to be used in pregnancy so the new recommendation will ensure this item is only used for non-pregnancy-related services.

Recommendation 15: Create a new item for 12-16 week morphology ultrasound for multiple gestation pregnancies.

Item	What it does	Committee recommendation	What would be different	Why
XXXXX	A pregnancy ultrasound scan done from 12-16 week to look at the foetuses in women who are pregnant with twins or multiples.	That a new item be introduced for a 12-16 week ultrasound for pregnancies where there is more than one foetus.	Instead of using one of the existing 12-16 week pregnancy ultrasound items, women who are pregnant with twins or higher order multiples would receive the scan for the new item which would have a higher Medicare contribution than the current item.	Scanning more than one foetus takes more time and effort than scanning one foetus. Separate MBS items already exist for ultrasounds for multiple gestation pregnancies for 17-22 and >22 weeks gestation.

Recommendation 16: Create a new item for cervical length assessment for threatened preterm labour.

Item	What it does	Committee recommendation	What would be different	Why
XXXXX	Measurement of the length of the cervix using ultrasound.	That a new item be introduced for the measurement of the length of the cervix in women who are between 16 and 30 weeks pregnant and are at risk of early labour.	Instead of having a full pregnancy ultrasound, women who need their cervical length assessed would have the new test that only looks at the cervix.	In women who are at higher risk of having an early birth, an ultrasound to measure the length of the cervix may need to be done frequently throughout the pregnancy. This is a relatively quick and simple test and so a full pregnancy ultrasound is not necessary every time cervical length is checked.

MRI

Recommendation 17: Create a new item with a higher fee than the current item for MRI contrast agents (item 63491) specific for macrocyclic gadolinium contrast agents.

Item	What it does	Committee recommendation	What would be different	Why
XXXXX	A new MRI modifying item that is only for a particular type of MRI contrast (a type of dye that is injected into a vein to make certain body tissues show up brightly on MRI). The new type of contrast may be safer for some patients.	That a new item be created with a higher fee than the current item for MRI contrast agents (item 63491) that can only be used for one particular type of contrast. The higher fee would reflect the higher cost of this type of contrast.	There would be a new item listed on the MBS.	The item currently used for MRI contrast agents (item 63491) is used for all types of contrast. As macrocyclic gadolinium contrast agents are more expensive than some other types, providers may be less likely to use the more expensive type (macrocyclic gadolinium) which may be safer for some patients.

Recommendation 18: Create a new item for MRI of the pelvis for the investigation of sub-fertility.

Item	What it does	Committee recommendation	What would be different	Why
XXXXX	A new item for MRI of the pelvis for women of all ages to investigate problems with fertility.	That a new item is created for MRI of the pelvis to investigate the causes of fertility problems. The new item would need to be referred to MSAC for consideration.	There would be a new item listed on the MBS.	A service for MRI of the pelvis for women experiencing sub-fertility should be available to women of all ages.

Recommendation 19: Create a new item for MRI for the evaluation of cervical cancer for initial staging or re-staging.

Item	What it does	Committee recommendation	What would be different	Why
XXXXX	A new MRI service that allows patients with cervical cancer to have up to two scans per year if their cancer requires restaging (re-evaluation) while they are undergoing treatment.	That a new item be created for MRI of the pelvis and abdomen for patients with cervical cancer.	In place of the current item for MRI for staging of cervical cancer (63470) which allows only one scan to be performed per patient ever, the new item could be used for restaging of cancer while treatment with chemotherapy or radiotherapy is being undertaken.	Patients with cervical cancer who are undergoing treatment may need to have their cancer restaged to decide whether the treatments are working and whether surgery is necessary.

Recommendation 20: Create a new item for MRI for the evaluation of rectal cancer for initial staging or re-staging.

Item	What it does	Committee recommendation	What would be different	Why
XXXXX	A new MRI service that allows patients with rectal cancer to have up to two scans per year if their cancer requires restaging (re-evaluation) while they are undergoing treatment.	That a new item be created for MRI of the pelvis and abdomen for patients with rectal cancer.	In place of the current item for MRI for staging of rectal cancer (63476) which allows only one scan to be performed ever, the new item could be used for restaging of cancer while treatment with chemotherapy or radiotherapy is being undertaken.	Patients with rectal cancer who are undergoing treatment may need to have their cancer restaged to decide whether the treatments are working and whether surgery is necessary.

Recommendation 21: Create a new item for whole-body MRI for children with disseminated malignancy, suspected non-accidental injury and chronic recurrent osteomyelitis.

Item	What it does	Committee recommendation	What would be different	Why
XXXXX	A new MRI service for a whole-body scan for children with cancer that is suspected to have spread, suspected child abuse and recurrent infections in the bone.	That a new item be created for whole-body MRI for children for specific clinical indications.	There would be a new item listed on the MBS for whole-body MRI for children.	Whole-body MRI provides a detailed picture of the anatomy and without involving any ionising radiation. Therefore, it is safer for scanning the whole body than some other types of imaging.

Recommendation 22: Create a new item for MRI of the liver for the evaluation of hepatic metastases for initial staging or restaging prior to treatment using interventional techniques.

Item	What it does	Committee recommendation	What would be different	Why
XXXXX	A new service for MRI of the liver for patients with cancer where there is confirmed or suspected spread of cancer to the liver.	That a new item be created for MRI of the liver to evaluate cancer that has spread to the liver from another part of the body.	There would be a new item listed on the MBS.	There are certain types of cancer that are prone to spreading to the liver. There is currently no item for MRI to check the liver for spread of these cancers. MRI can provide excellent detail of small lesions within the liver so a new item for this would help guide treatment decisions for patients with these cancers.

Recommendation 23: Amend the time period restriction for MRI for the evaluation of PIP breast implants to 1 service per 24-month period.

Items	What they do	Committee recommendation	What would be different	Why
63501 to 63504 and 63505	MRI of the breast/s to check whether a certain type of silicone breast implant made by Poly Implant Prosthese (PIP) is intact.	That the time period restriction for these items be changed from 1 service per 12-month period to 1 service per 24-mont period.	Instead of benefits being paid once a year, benefits could only be paid once every 2 years.	The Committee noted the service volumes for this item are steadily going down as the number of patients who have had problems with this type of implant rupturing have already had the problem addressed. There is no clinical need for patients to have their implants checked more frequently than once every 2 years.

Co-claiming of radiologist attendances with diagnostic imaging

Recommendation 24: Restrict radiologists' co-claiming attendance items with specified diagnostic imaging items.

Items	What they do	Committee recommendation	What would be different	Why
55800 to 55855, 57506 to 57539, 57700 to 57723, 57901 to 57969, 58100 to 58127, 58300 to 58308, 58500 to 58529, 58700 to 58723, 58900 to 58905, 59103 to 59104, 60100 to 60101	Ultrasound of the musculoskeletal system (muscles, bones and joints) and x-ray of the shoulder, pelvis, head, spine, bones, chest, urinary tract, digestive tract, biliary system and x-ray to identify foreign bodies.	That the combined claiming (co-claiming) of these items with a radiologist attendance item be prohibited.	Radiologists will not be able to claim an attendance item when they also claim one of these items.	Over the past 10 years, the number of diagnostic imaging items – such as x-ray and ultrasound – claimed with a separate consultation has increased significantly. Often, a consultation is not necessary, so the additional item should not be billed, only the diagnostic imaging service. The Committee identified the items where a consultation is not necessary, hence the proposed restrictions to billing.

Recommendation 25: Prohibit the use of ultrasound items 55054 and 55026 for joint injections.

Item	What they do	Committee recommendation	What would be different	Why
55054 and 55026	Ultrasound done as part of a surgical procedure.	That joint injections cannot be performed under this item.	Joint injections will not be able to be performed under this item but can be performed under items 55848 and 55850 where radiologist attendance items can't be co-claimed as the fee already incorporates any necessary consultation.	The Committee agreed that the introduction of restricting the co-claiming of ultrasound items 55848 and 55850 with a consultation or attendance item would result in joint injection services shifting to item 55054 where there is not a co-claiming restriction. As a result it was agreed that item 55054 be amended to exclude joint injections services.

Recommendation 26: Define appropriate claiming of attendance items by radiologists.

Item	What they do	Committee recommendation	What would be different	Why
N/A	Professional attendance by a radiologist.	That a definition be developed to outline when it is appropriate for a radiologist to claim a professional attendance item.	There would be no impact on patients.	The Committee agreed defining when it is appropriate for radiologist to claim a professional attendance item would assist radiologists to determine when this should occur in the course of their work.

Capital sensitivity measures (services performed on old equipment)

Recommendation 27: Remove NK items (for imaging services performed on older equipment that carry a lower fee than the equivalent services performed on newer or upgraded equipment) and availability of MBS rebates for services on older equipment.

Items	What they do	Committee recommendation	What would be different	Why
All NK items	Imaging tests performed on older equipment.	That all schedule NK items be removed from the MBS. NK items are claimed by providers who provide services on older equipment but claim a reduced rebate.	Providers would no longer receive a fee from Medicare for providing services on older and aged equipment.	There are not many providers that still perform services on aged equipment. However, this recommendation will encourage those providers to upgrade their equipment. This will improve the quality and safety of diagnostic imaging equipment across the country, as newer equipment produces greater quality images and can also be safer.

Recommendation 28: Remove remote area exemptions that currently allow practices to claim K items (for imaging services performed on newer equipment that carry a higher fee than the equivalent services performed on older equipment), with a transition period subject to meeting certain conditions.

Item	What they do	Committee recommendation	What would be different	Why
N/A	Exemptions that allow providers to claim the higher fee K items for imaging done using older equipment (where the NK item would normally be used).	This recommendation removes the remote area exemptions for practices with existing exemptions which allow them to claim a K item for services provided on equipment exceeding its effective life age.	Providers of diagnostic imaging services would be required to upgrade their equipment in regional and remote areas in order to claim the MBS items and patients to receive a Medicare rebate.	Patients would benefit from improved quality and safety of imaging and reduce the amount of exposure to radiation by encouraging providers of diagnostic imaging services to upgrade their equipment. This would encourage the same level of care regardless of location of patient or provider.

Multiple services rules and item level restrictions

Recommendation 29: That the multiple services rules for diagnostic imaging services be simplified and streamlined to avoid disadvantage to patients.

Items	What they do	Committee recommendation	What would be different	Why
N/A	Rules that determine how benefits are paid for multiple imaging services performed within a defined time period.	That the current multiple services rules for diagnostic imaging services be simplified and streamlined to make sure there is no disadvantage to patients.	The current multiple services rules would be further reviewed with a view to improving them.	The Committee noted the current multiple services rules for diagnostic imaging are complex and may be improved through simplification and streamlining measures.

Recommendation 30: Amend the item descriptors for items for ultrasound of the pelvis to remove co-claiming restrictions with items for ultrasound of the abdomen.

Items	What they do	Committee recommendation	What would be different	Why
55065, 55067, 55068, 55069, 55014, 55016, 55036 and 55037	Ultrasound scans of the pelvis and abdomen.	That the item descriptors for ultrasound of the pelvis and ultrasound of the abdomen be changed to remove the co-claiming restrictions which say the two scans cannot be performed on the same day.	Ultrasound of the pelvis and abdomen could be claimed for services provided on the same day. Currently, benefits cannot be claimed for these services if they are done during one attendance.	There are times where an ultrasound scan of both the pelvis and abdomen may need to be done on a patient at one time. An example is female patients with abdominal pain where both the pelvis and abdomen need to be examined using ultrasound. The recommended changes mean these services could be provided in one attendance, without the patient being required to come back on another day.

Recommendation 31: Amend the item descriptors for general ultrasound (not including interventional items), obstetric and gynaecological and musculoskeletal ultrasound to remove co-claiming restrictions with cardiac or vascular ultrasound (with the exception of lower leg ultrasound).

Items	What they do	Committee recommendation	What would be different	Why
55113 to 55125, 55005 to 55084 and 55220 to 55296	Ultrasound scan of different body areas or of the foetus for obstetric ultrasound.	Remove the co-claiming restrictions for some ultrasound items (general ultrasound, obstetric and gynaecological and musculoskeletal ultrasound) with other ultrasound items (cardiac and vascular ultrasound, except for lower leg ultrasound for calf pain). Item number descriptions are amended.	Currently, general ultrasound items, obstetric and gynaecological and musculoskeletal ultrasound, cannot be claimed on the same day as a cardiac or vascular ultrasound. Under the new recommendation, these ultrasounds could be performed on the same day as one another, if clinically necessary, except for lower leg ultrasound for calf pain.	There are times where an ultrasound scan of more than one body area may need to be done on a patient at the same time as another ultrasound. For example, an ultrasound of the shoulder might need to be done on the same day as an ultrasound of the leg. The recommended changes mean these services could be provided in one attendance, without the patient being required to come back on a separate day. The only exception is if a patient has pain in their calf, an ultrasound to look for a blood clot in a vein could not be done on the same day as a general musculoskeletal ultrasound of the same area.

Recommendation 32: Amend the item descriptors for interventional CT and interventional fluoroscopy items to change the restriction that says these services cannot be done with another diagnostic imaging service of any type, to only services in their own subgroups.

Items	What they do	Committee recommendation	What would be different	Why
57341, 57345, 60506 to 60510, 61109 and 61110	A CT scan or fluoroscopy (a test where x-ray is used to project real-time moving images of the body on a TV monitor) done as part of a surgical procedure.	That the item descriptors for these items be changed so that these scans cannot be done on the same day as another scan of the same type but they can be done on the same day as another type of imaging scan.	Currently, these items cannot be done on the same day as another diagnostic imaging service. Under the proposed change, only scans in their own subgroup of the MBS could not be done on the same day while items in other subgroups could be done.	Sometimes patients come in for a CT scan and the results of the scan show that an intervention (e.g. an injection) is necessary under CT-guidance (where the CT scan guides the position of the needle). Under the current restriction, benefits could not be paid for scans performed on the same day which causes inconvenience and stress for patients as they may have to attend on another day. Under the new recommendation, these could be performed during the one attendance.

Recommendation 33: Create separate items for unilateral and bilateral musculoskeletal ultrasound items with an appropriate fee for each.

Items	What they do	Committee recommendation	What would be different	Why
55800 to 55843	Ultrasound scan of the muscles, bones, joints and surrounding tissues of different parts of the body.	That separate items be created for ultrasound scans of one side of the body and both sides of the body with a higher fee for scans for both sides of the body.	Instead of one ultrasound item for the muscles, bones and joints of each body area, there would be two, separate items for either one side (unilateral) or both sides (bilateral). The bilateral scan would attract a higher fee and patients who need both sides scanned would have the scans provided at the same time.	It takes more time and effort to do an ultrasound scan on both sides of the body compared with just one. There are times when both sides need to be scanned and in some cases, patients have been asked to come back on separate days to have the other side scanned so the item can be claimed twice. This is inconvenient for patients. If there are separate items for ultrasound of one or both sides of the body, doctors can perform both scans at the same time which is more convenient for patients. A higher benefit would be paid for the scan for both sides.

Other recommendations

Recommendation 34: Create a new item for DEXA for patients with breast cancer being treated with aromatase inhibitor therapy, to be referred to MSAC for consideration.

Item	What it does	Committee recommendation	What would be different	Why
XXXXX	A scan called dual energy x-ray absorptiometry (DEXA) which uses a special x-ray to measure bone density and bone loss.	That DEXA be available on the MBS for patients with breast cancer who are treated with a certain class of drugs (aromatase inhibitors) which are known to cause loss of bone.	DEXA is currently available under the MBS for certain patients (e.g. those with a history of low bone density or minimal trauma fractures) but there is no item for the measurement of bone density of patients taking aromatase inhibitors. The new item would provide this service to these patients.	Patients can face significant out-of-pocket costs when being diagnosed with and treated for breast cancer. Patients taking aromatase inhibitors may have to pay for their own bone density scan. The new item would provide a Medicare benefit for DEXA for these patients.

Recommendation 35: Split the current item for CT spiral angiography into three items, add the requirement for a GP to consult with a specialist before ordering the test, and remove the word "spiral" from the item descriptor for CT angiography items.

Item	What they do	Committee recommendation	What would be different	Why
57350, 57351, 57355 and 57356	A CT angiogram is a test where a special dye is injected into blood vessels and a CT scanner is used to produce detailed images of the blood vessels in the various parts of the body.	That the current item be split into three different items with no frequency restriction (how often the test can be performed) so that it can be requested as often as clinically necessary. The Committee also recommended requirement for a GP to consult with a specialist before ordering the test, be added to ensure it is only requested when necessary. The Committee also recommended the word “spiral” be removed from the item descriptors of the new items.	Instead of one item that covers CT angiogram for any area of the body, there would be three separate items for different body areas. Each of the new items would have no frequency restriction but GPs would need to consult with a specialist before the test can be requested. The item descriptors would not include the word “spiral”.	The current item for CT angiogram carries a restriction of 1 service per 12-months, regardless of where in the body the test is being done. Some areas of the body may need more frequent testing with angiogram in certain situations (e.g. for patients who have had a stroke). Splitting the item into separate items for different body areas would allow it to be performed as often as the treating doctor thinks is clinically necessary. This would benefit patients as they could access the test more often if needed. Requiring GP consultation with a specialist would ensure it is only done when it is really necessary.

Recommendation 36: Remove the word "lifetime" from the DIST with regards to time period restrictions on imaging services for cancer patients.

Items	What they do	Committee recommendation	What would be different	Why
63547 and 63548	MRI scan of the breasts to look for cancer in patients with breast implants.	That the word "lifetime" be removed from the item descriptors for these items and other places it appears in the DIST when referring to patients with cancer.	The term "once in a patient's lifetime" to describe a diagnostic scan only being allowed to be performed once, would be replaced with alternative wording. The restriction itself will not change.	Patients with cancer may face shortened life expectancy so using the phrase "once in a patient's lifetime" to describe limits in access to diagnostic imaging scans may be viewed as insensitive.

Recommendation 37: Consideration be given to the issue of high out-of-pocket costs associated with diagnostic imaging, especially in the context of a cancer diagnosis.

Items	What they do	Committee recommendation	What would be different	Why
N/A	Diagnostic imaging services for patients diagnosed with a serious disease such as cancer.	That additional consideration be given to the issue of the high cost to patients associated with the necessary diagnostic imaging for a serious disease.	Additional work would be undertaken to examine this issue.	There can be high out-of-pocket costs for diagnostic imaging for patients facing a diagnosis with a serious disease, such as cancer and this issue should be examined further.

Recommendation 38: The Department consider the development of clinical decision support tools for the requesting of diagnostic imaging (including CT of the cervical spine, CT of the head, musculoskeletal ultrasound and thyroid ultrasound).

Items	What they do	Committee recommendation	What would be different	Why
N/A	Tools to help guide appropriate requesting of diagnostic imaging services by clinicians.	That consideration be given to the development of clinical decision support tools for diagnostic imaging, especially for highlighted examples such as CT of the neck, CT of the head, ultrasound of the limbs and thyroid ultrasound.	Consideration would be given to the development of clinical decision support tools for diagnostic imaging.	Clinical decision support tools can ensure appropriate requesting of diagnostic services, including diagnostic imaging. The Committee highlighted a number of examples of imaging tests where appropriate requesting might be improved through the development of clinical decision support tools.

Appendix B Summary of pregnancy ultrasound data

Pregnancy ultrasound by gestation

Table 1: Number of Services and MBS benefit paid by each group of pregnancy ultrasound items, 2014-15

Pregnancy gestation	Services	Benefits
< 12 weeks	397,262	$19,923,379
12-16 weeks	51,635	$3,079,557
Nuchal Translucency measurement ultrasound	158,510	$9,945,597
17-22 weeks	277,294	$26,201,117
>22 weeks	268,205	$27,258,129
Duplex scanning	3,026	$74,761
Ultrasound with saline infusion	11,461	$1,355,173

Pregnancy ultrasound less than 12 weeks

There are four items for pregnancy ultrasound before 12 weeks. To claim any of these items, the patient must have at least one of 30 conditions present, including uncertain dates, risk of miscarriage, diminished symptoms of pregnancy, and pregnancy after assisted reproduction.

Table 2: MBS, patient count, services and MBS benefits for pregnancy ultrasounds less than 12 weeks, 2014-15

Item	Descriptor	MBS fee ($)	Services	Benefits
55700	Pregnancy ultrasound, < 12 weeks, referred by doctor or midwife	60	302,723	$ 16,805,220
55701	Pregnancy ultrasound, < 12 weeks, referred by doctor, old machine	30	10	$ 156
55702	Pregnancy ultrasound, < 12 weeks, not referred, old machine	17.50	95	$ 1,591

55703	Pregnancy ultrasound, < 12 weeks, not referred	35	94,434	$ 3,116,411

Table 2 shows that most patients having a pregnancy ultrasound at less than 12 weeks gestation claimed item 55700.

Number of services 55700 and 55703 by speciality

Table 3 shows that radiologists provided the vast majority of pregnancy ultrasounds for less than 12 weeks gestation.

Table 3: Number of services provided by specialty, 2014-15

Speciality	*55700*	*55703*
GP	*250*	41,334
O&G	40,486	49,615
Radiology	259,761	202
Internal Medicine	1,019	np
Nuclear Medicine	571	np
Cardiology	np	np
Pathology	340	3,248
Clinical Genetics	292	np

np – not for publishing due to small service volume

Rate of items 55700 and 55703 per 1,000 women aged 14-49 by State

Figure 1 shows some variability across the states, with Queensland having the highest overall rate per 1,000 women aged 14-49 years for both item 55700 and 55703. Conversely, Northern Territory has the lowest amount of non-referred ultrasounds, but also has the highest number of referred ultrasounds for 2014-15.

Figure 1: Services for items 55700 and 55703 by state, rate per 1,000 women aged 14-49, 2014-15

Table 4: Total number of services for 55700 and 55703 by State, 2014-15

Item	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
55700	104,194	70,584	67,351	15,839	30,685	5,423	3,717	4,919
55703	30,014	25,107	20,080	5,739	9,652	2,092	220	1,528

Table 4 shows the total number of referred and non-referred ultrasounds in 2014-15, with New South Wales having the highest number of services and Northern Territory having the least.

Pregnancy ultrasounds 12-16 weeks

These pregnancy ultrasounds follow the same format as the items for a pregnancy gestation of less than 12 weeks. These items do not include the scan for nuchal translucency measurement. To claim these items, the patient must have at least one of the same 30 conditions present that are listed in the items for less than 12 weeks.

Table 5: MBS fee, services and benefits paid for pregnancy related ultrasounds 12-16 weeks gestation, 2014-15

Item	Short Descriptor	MBS fee ($)	Patients	Services	Benefits ($)
55704	Pregnancy ultrasound, 12 to 16 weeks, referred by doctor or midwife	70	43,179	45,667	2,883,889
55705	Pregnancy ultrasound, 12 to 16 weeks, not referred	35	5,598	5,962	195,491
55710	Pregnancy ultrasound, 12 to 16 weeks, referred by doctor, old machine	35	np	np	145

55711	Pregnancy ultrasound, 12 to 16 weeks, not referred, old machine	17.50	np	np	33

np – not for publishing due to small service volume

Number of services for items 55704 and 55705 by specialty

Table 6 shows that in 2014-15 around 30,000 of 12-16 weeks gestation pregnancy ultrasounds were performed by radiologists, while around 20,000 services were performed by Specialist Obstetricians/Gynaecologists.

Table 6: Number of services for pregnancy scans 12-16 weeks gestation by specialty, 2014-15

Speciality	*55704* Pregnancy ultrasound, 12 to 16 weeks, referred by doctor or midwife	*55705* Pregnancy ultrasound, 12 to 16 weeks, not referred
GP	*26*	1,565
O&G	15,228	4,338
Radiology	30,030	33
Internal Medicine	124	np
Nuclear Medicine	59	np
Cardiology	np	np
Pathology	140	26
Clinical Genetics	58	np

np – not for publishing due to small service volume

Rate of items 55704 and 55705 per 1,000 women aged 14-49 by State

Figure 2 shows Victoria having the highest overall rate of referred pregnancy ultrasound services at 12-16 weeks for women aged 14-49. Both South Australia and the ACT show almost identical rates of referred and non-referred ultrasounds at 12-16 weeks being claimed in 2014-15.

Figure 2: 55704 and 55705 by state, rate per 1,000 female population aged 14-49, 2014-15

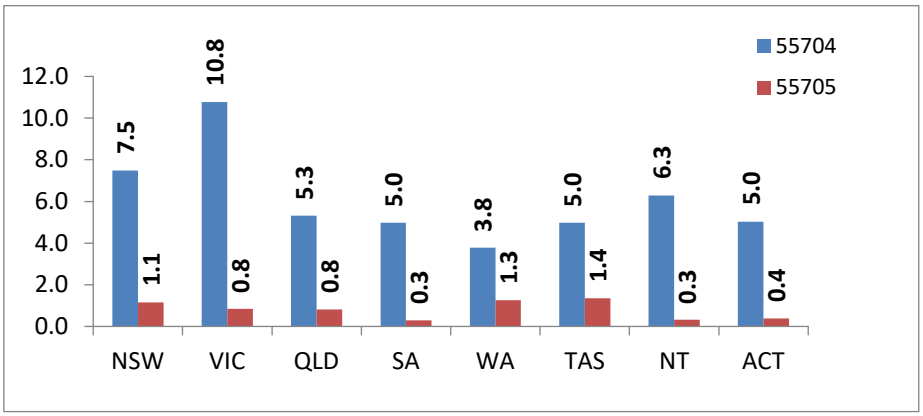

Table 7: Total number of services for 55704 and 55705, 2014-15

Item	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
55704	15,042	17,330	6,849	2,146	2,671	621	446	561
55705	2,307	1,366	1,045	123	886	169	23	43

Table 7 shows the total number of referred and non-referred ultrasounds at 12-16 weeks in 2014-15, with VIC having the highest amount of claimed services and NT having the least.

Pregnancy ultrasound for Nuchal Translucency measurement

There are four items for undertaking the nuchal translucency measurement.

Table 8: MBS fee, services and MBS benefits for Nuchal Translucency pregnancy ultrasounds, 2014-15

Item	Short Descriptor	MBS fee ($)	Services	Benefits ($)
55707	Pregnancy ultrasound, crown rump length 45 to 84 mm, nuchal translucency measurement, referred by doctor or midwife	70	157,875	9,925,279
55708	Pregnancy ultrasound, crown rump length 45 to 84 mm, nuchal translucency measurement, not referred	35	626	20,158
55714	Pregnancy ultrasound, crown rump length 45 - 84mm, nuchal translucency measurement	35	np	96

Item	Short Descriptor	MBS fee ($)	Services	Benefits ($)
	performed, referred by doctor, old machine			
55716	Pregnancy ultrasound, crown rump length 45 - 84mm, nuchal translucency measurement performed, referred by doctor, old machine	17.50	np	65

np – not for publishing due to small service volume

The number of services for the nuchal translucency items is low compared with the number of women who give birth each year in Australia.

Number of item 55707 claimed by specialty, 2014-15

Table 9 shows that the majority of these services are provided by a radiologist; however a significant proportion is undertaken by a specialist obstetrician/gynaecologist.

Table 9: Nuchal Translucency ultrasound scans by specialty, 2014-15

SPECIALITY	55707 Pregnancy ultrasound, crown rump length 45 to 84 mm, nuchal translucency measurement, referred by doctor or midwife
GP	152
O&G	61,957
RADIOLOGY	93,752
INTERNAL MEDICINE	1,239
NUCLEAR MEDICINE	421
CARDIOLOGY	np
PATHOLOGY	123
CLINICAL GENETICS	223

np – not for publishing due to small service volume

Table 10: Total number of services for 55707 by State, 2014-15

Item	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
55707	52,600	40,989	27,054	14,015	15,763	2,581	819	4,048

Pregnancy ultrasounds 17-22 weeks

There are 16 items for pregnancy ultrasounds performed between 17 and 22 weeks gestation.

There appear to be over 30,000 women who did not have a 20 week scan claimed through the MBS, although they may have had the scan through the public system.

Number of items 55706 and 55712 claimed by specialty, 2014-15

Table 11 shows that radiologists perform the majority of ultrasounds between 17 and 22 weeks gestation.

Table 11: Pregnancy ultrasound scans 17-22 weeks gestation by specialty

SPECIALITY	55706 Pregnancy ultrasound, 17 to 22 weeks, referred by doctor or midwife	55712 Pregnancy ultrasound, 17 to 22 weeks, referred by a Member or Fellow of RANZCOG or has a Diploma of Obstetrics, or equivalent or has obstetric privileges at a non-metropolitan hospital
GP	297	14
O&G	77,008	6,136
RADIOLOGY	173,806	9,925
INTERNAL MEDICINE	1,222	34
NUCLEAR MEDICINE	358	21
CARDIOLOGY	np	np
PATHOLOGY	205	41
CLINICAL GENETICS	343	7

np – not for publishing due to small service volume

Rate of items 55700 and 55703 per 1,000 women aged 14-49 by State

Figure 3 shows the Northern Territory having the highest overall rate of referred pregnancy ultrasounds at 17-22 weeks for women aged 14-49, with most other states showing similar rates of claimed services in 2014-15. For ultrasounds at 17-22 weeks being referred by a RANZCOG member, both Western Australia and the ACT show the lowest rate at 1.1 per 1,000 females.

Figure 3: 55706 and 55712 by state, rate per 1,000 women aged 14-49, 2014-15

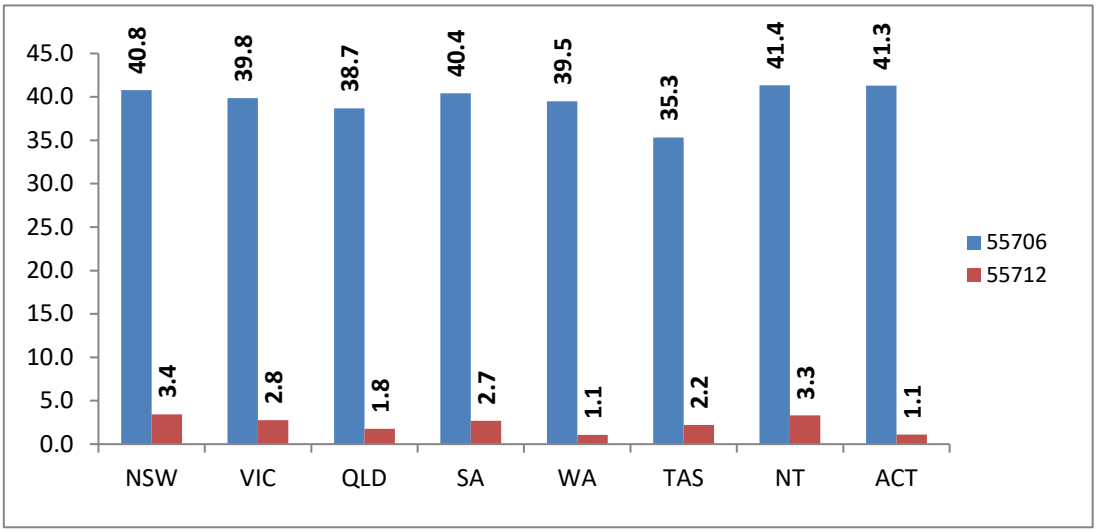

Table 12: Total number of services for 55706 and 55712 by State, 2014-15

Item	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
55706	81,992	64,072	49,885	17,424	27,905	4,411	2,933	4,607
55712	6,915	4,422	2,300	1,158	750	276	235	125

Table 12 shows the total number of referred-by-doctor and referred-by-RANZCOG ultrasounds at 17-22 weeks in 2014-15, with NSW having the highest number of claimed services and NT having the least.

Pregnancy ultrasound after 22 weeks

There are 16 items for pregnancy ultrasounds performed after 22 weeks gestation.

Rate of items 55718 and 55721 per 1,000 women aged 14-49 by State

Figure 4: 55718 and 55721 by state, rate per 1,000 female population aged 14-49, 2014-15

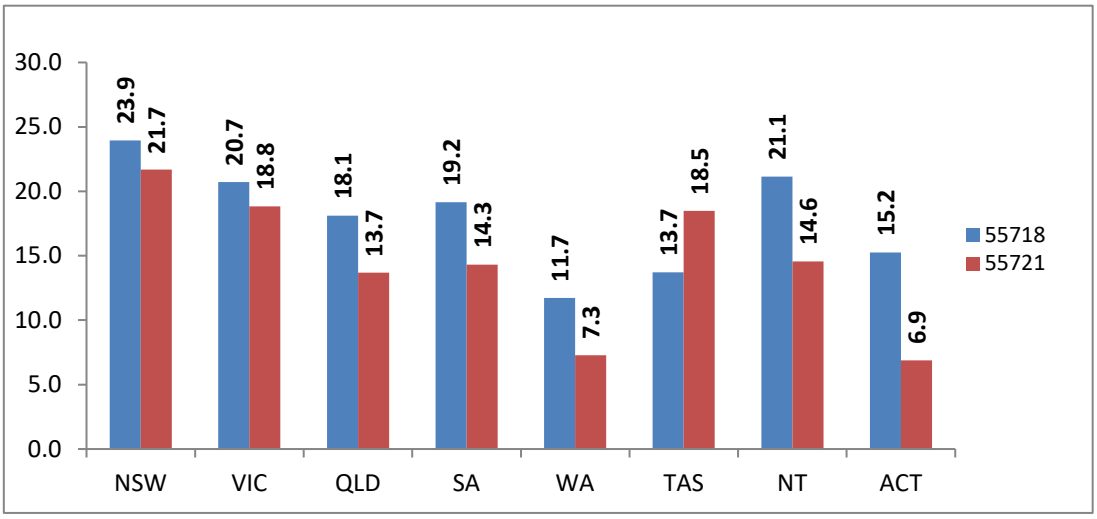

Figure 4 shows New South Wales having the highest overall rate of referred-by-doctor and referred-by-RANZCOG members pregnancy ultrasounds beyond 22 weeks, with Western Australia having the least in 2014-15. Tasmania is the only state showing higher rates of ultrasound services that were referred by RANZCOG members as opposed to a doctor or midwife.

Table 13: Total number of services for 55718 and 55721 by State, 2014-15

Item	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
55718	48,115	33,319	23,360	8,260	8,292	1,711	1,500	1,701
55721	43,572	30,267	17,657	6,174	5,152	2,309	1,033	768

Table 13 shows the total number of referred-by-doctor and referred-by-RANZCOG ultrasounds beyond 22 weeks in 2014-15, with NSW having the highest number of claimed services and ACT having the least.

Rate of items 55723, 55725 and 55772 per 1,000 women aged 14-49 by State

Figure 5: 55723, 55725 and 55772 by state, rate per 1,000 women aged 14-49, 2014-15

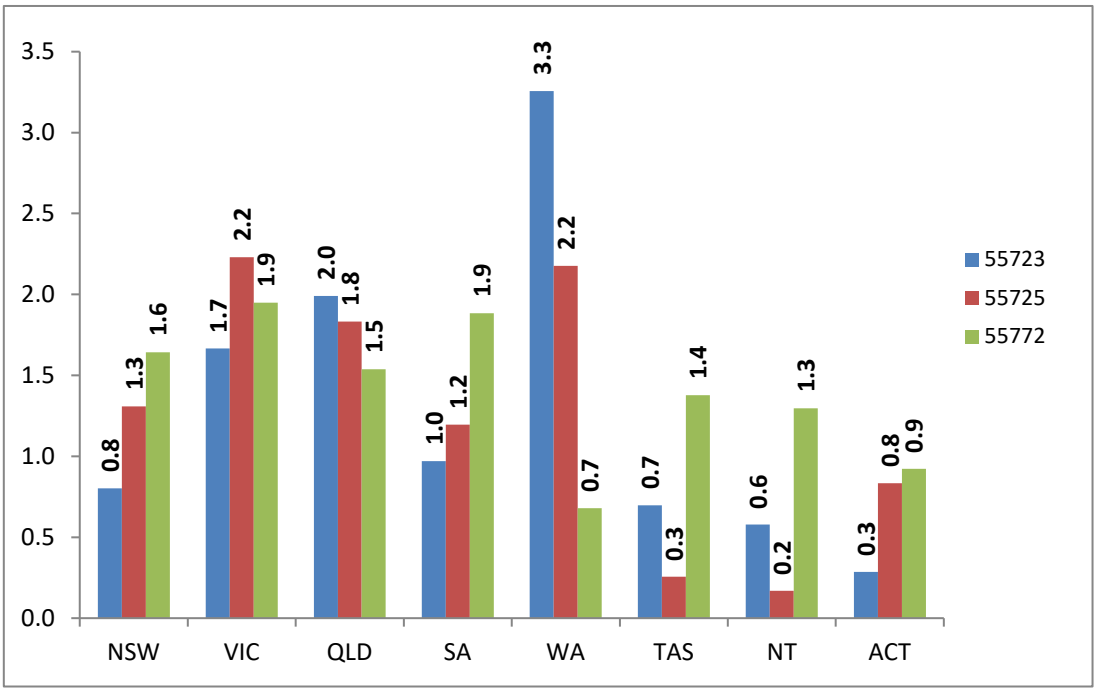

Figure 5 shows WA having the highest rate of not referred ultrasounds beyond 22 weeks in 2014-15, with ACT having the lowest rate per 1,000 women in 2014-15. Both VIC and WA show the highest rate of performed-by-RANZCOG ultrasounds beyond 22 weeks at 2.2 services per 1,000 women, while VIC and SA also have identical rates of referred-by-RANZCOG ultrasounds beyond 22 weeks at 1.9 services per 1,000 women.

Table 14: Total number of services for 55723, 55725 and 55772 by State, 2014-15

Item	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
55723	1,611	2,678	2,568	418	2,302	87	41	32
55725	2,629	3,586	2,363	516	1,538	32	12	93
52772	3,303	3,133	1,983	812	480	172	92	103

Table 14 shows the total number of not referred, referred-by-RANZCOG members and performed-by-RANZCOG members ultrasounds beyond 22 weeks in 2014-15 with VIC having the highest overall number of claimed services by almost 2,000 in comparison to NSW.

Number of services for most commonly claimed 22 week ultrasound items by specialty

Over 90,000 ultrasounds after 22 weeks were provided by obstetricians or gynaecologists, while over 150,000 ultrasounds after 22 weeks were provided by radiologists.

Table 15: Pregnancy ultrasounds for after 22 weeks gestation by speciality in 2014-15

Speciality	*55718* Pregnancy ultrasound >22 weeks, referred by doctor or midwife	*55721* Pregnancy ultrasound, > 22 weeks, referred by Member or Fellow of RANZCOG or Diploma of obstetrics or obstetric privileges at a non-metropolitan hospital	*55723* Pregnancy ultrasound, > 22 weeks, not referred	*55772* Pregnancy ultrasound, > 22 weeks, referred by Member or Fellow of RANZCOG or Diploma of obstetrics or has obstetric privileges at a non-metropolitan hospital
GP	*142*	124	596	np
O&G	41,969	40,725	9,081	5,912
Radiology	82,587	64,914	45	3,980
Internal Medicine	600	244	np	53
Nuclear Medicine	183	206	np	np
Cardiology	np	np	np	np
Pathology	324	227	14	71

CLINICAL GENETICS	454	496	np	55

np – not for publishing due to small service volume

Number of pregnancy ultrasounds per patient

The MBS data presented in this section comes from women who underwent a MBS funded 20 week ultrasound in 2013-14, and captures all MBS funded pregnancy ultrasounds claimed by these women in the five months before and after they claimed the 20 week ultrasound.

Overall there is a low rate of claims for the assessment of the nuchal translucency measurement (56% per nationally, as low as 34% in NT and as high as 74% in SA). This may be due to an increase in the use of non-invasive prenatal testing.

SA has particularly high rates of pregnancy ultrasounds for the assessment of the nuchal translucency measurement (74%) and less than 12 weeks (85%).

The level of pregnancy ultrasounds before 12 weeks ranged from 85% in SA to 60% in the ACT.

Table 16: Number of pregnancy ultrasounds for women in Australia who had a 20 week ultrasound, 2013-14

	No. of Ultrasounds					
	0	1	2	3	4+	
Australia	Patients	Patients	Patients	Patients	Patients	Total*
Ultrasound						
12-16 wks	224,912	36,044	2,350	218	28	38,640
17-22 wks	0	251,201	11,400	811	140	263,552
<12 wks	83,592	137,658	35,042	5,990	1,270	179,960
>22 wks	125,447	82,992	33,974	12,731	8,408	138,105
Nuchal Translucency	116,705	146,833	14	0	0	146,833

* Total is for the number of patients who had at least one pregnancy ultrasound.

Table 16 shows that of the 263,552 women in Australia who claimed a 20 week ultrasound, around 56% (148,833) claimed an item for the assessment of the nuchal translucency measurement, around

68% (179,960) of the women claimed at least one less than 12 weeks ultrasound, and 52% (138, 105) of the women claimed at least one ultrasound after 22 weeks.

Around 13% of women had two pregnancy ultrasounds after 22 weeks and around 3% of women had four or more pregnancy ultrasounds after 22 weeks.

Appendix C Referral from the Gynaecology Clinical Committee 1

Memorandum regarding item use of pelvic MRI for the investigation of sub-fertility

Gynaecology Clinical Committee

10 October 2017

Dear MBS Diagnostic Imaging Committee,

The Gynaecology Clinical Committee has performed an extensive review of items related to therapies using artificial reproductive technology (ART). During the review, the Committee and members of the ART Working Group recommended that pelvic MRI be made reimbursable under the MBS for patients experiencing fertility problems, in certain circumstances.

Item 63440 is not in our Committee's scope, but we would like to request your kind consideration of specific changes to the item during your review. In order to present you with as complete a suggestion as possible, we have drafted our suggestions in the Review's standard Recommendation-Rationale format. This recommendation is also included in the Gynaecology Committee's Report as follows:

Recommendation 1

- The Committee recommended either:
    - Adding the indications outlined below to the descriptor for item 63440 and making an exception to the age restriction referred to therein.
- OR
    - Initiating an MSAC application to include an item for pelvic MRI for the investigation of fertility in the MBS.
- The proposed descriptor for the new item (or the proposed text to be added to the descriptor for item 63440) is as follows:
    - Magnetic Resonance Imaging of the female pelvis/lower abdomen under the professional supervision of an eligible provider at an eligible location where the patient is referred by a specialist for the following indications:
        - Investigation of suspected Mullerian duct anomaly seen in pelvic ultrasound or hysterosalpingogram.
        - Assessment of uterine mass identified on pelvic ultrasound before consideration of surgery (myomectomy).
        - Investigation for recurrent implantation failure in IVF (> 2 good quality embryos transferred without viable pregnancy).
        - Preoperative assessment of patient with suspected bowel involvement with severe endometriosis.
    - This item cannot be claimed more than once in any two-year period.
- The Committee acknowledges that MSAC evaluation would be required once a suitable sponsor has submitted an application, if the indication cannot simply be added to item 63440.

Rationale

- This recommendation focuses on modernising the MBS. It is based on the following.
- An existing item number for pelvic MRI exists for girls under 16 years of age (item 63440), but this is not available to reproductive-age women.
- Pelvic MRI is the preferred imaging modality for investigating congenital abnormalities of the uterus (Mullerian duct anomalies). The existing item numbers (pelvic ultrasound and hysterosalpingogram) often incorrectly diagnose a uterine septum as a bicornuate uterus. This harms patient care because the reproductive outcomes and management for these procedures are entirely different.
- If a high-quality pelvic ultrasound has been done and confirms no abnormality, there is no need for an MRI. The Committee therefore recommended that a screening ultrasound should be performed before a pelvic MRI item can be claimed.
- Pelvic MRI is far superior to pelvic ultrasound or hysterosalpingograms at delineating the position (in relation to the uterine cavity) and the nature of uterine masses (for example, fibroids, adenomyomas, sarcomas). It therefore allows a more accurate assessment of the potential benefits of surgery for the patient.
- In an IVF context, recurrent implantation failure with good-quality embryos is usually associated with submucosal fibroids, adenomyosis and uterine septum, all of which are best identified using MRI. Pelvic ultrasound can miss adenomyosis, and the Committee therefore suggests that all women meeting the implantation failure criteria should be allowed a pelvic MRI.
- Pelvic MRI is a useful technique for identifying rectal involvement of endometriosis, allowing for better surgical planning (bowel preparation, general surgeon assistance, etc.). If rectal involvement is suspected, MRI should be permitted for clinical reasons.
- The Committee noted that pelvic MRI is already widely used for cervical cancer staging procedures in Australia.

— Gynaecology Clinical Committee Report 2017.

We thank you for your consideration, and would be pleased to discuss this further should your Committee raise any further questions or concerns.

Yours Sincerely,

Professor Michael Permezel

Chair, Gynaecology Clinical Committee

Appendix D Referral from the Gynaecology Clinical Committee 2

Memorandum regarding item 63470 for pelvic MRI

Gynaecology Clinical Committee

10 October 2017

Dear MBS Diagnostic Imaging Committee,

The Gynaecology Clinical Committee has performed an extensive review of items related to cervical malignancy. During the review, the Committee and members of the Gynaecological Oncology Working Group voiced concerns that the use of item 63470 is restricted to initial staging of cervical cancer, and does not allow for use in restaging or other situations that would benefit patient care.

Item 63470 is not in our Committee's scope, but we would like to request your kind consideration of specific changes to the item during your review. In order to present you with as complete a suggestion as possible, we have drafted our suggestions in the Review's standard Recommendation-Rationale format. This recommendation is also included in the Gynaecology Committee's Report as follows:

Item introduction table for item 63470

Item	Descriptor	Schedule fee	Volume of services FY2015/16	Services 5-year-average annual growth	Total benefits FY2015/16
63470	Magnetic resonance imaging performed under the professional supervision of an eligible provider at an eligible location where: (a) the patient is referred by a specialist or by a consultant physician and (b) the request for scan identifies that (i) a histological diagnosis of carcinoma of the cervix has been made and (ii) the patient has been diagnosed with cervical cancer at figo stage 1b or greater Scan of: - Pelvis for the staging of histologically diagnosed cervical cancer at figo stages 1b or greater (r) (Contrast) (Anaes.)	$403.20	394	10.8%	$154,385

Recommendation2

- Change the descriptors for item 63470 to:
  - Remove the restriction that states benefits are payable for a service included by subgroup 20 on one occasion only.
  - Add the following indications:
    - Restaging in the event of suspected recurrence of cervical cancer prior to exenterative surgery and/or for planning of vaginal brachytherapy radiation treatment.
    - Staging for endometrial cancer in a woman with a diagnosis of endometrial cancer who wishes to retain her uterus.
    - Pelvic malignancy prior to pelvic exenterative surgery.
  - The proposed item descriptor is as follows:

    - Magnetic resonance imaging performed under the professional supervision of an eligible provider at an eligible location where: (a) the patient is referred by a specialist or by a consultant physician and (b) the request for scan identifies that (i) a histological diagnosis of carcinoma of the cervix has been made and (ii) the patient has been diagnosed with cervical cancer at figo stage 1b or greater; or (iii) for suspected recurrence of cervical cancer prior to exenterative surgery and/or for planning of vaginal brachytherapy radiation treatment; or (iv) for staging for endometrial cancer in a woman with a diagnosis of endometrial cancer who wishes to retain her uterus; or (v) for pelvic malignancy prior to pelvic exenterative surgery. Scan of: - Pelvis for the staging of histologically diagnosed cervical cancer at figo stages 1b or greater (r) (Contrast) (Anaes.)
- The Committee acknowledges that MSAC evaluation may be required if these indications cannot simply be added to item 63470.

Rationale

- This recommendation focuses on promoting patient safety by improving surgical decision-making in complex gynaecological cancer patients. It is based on the following (115–122).
- MRI is already funded for the initial staging of cervical cancer, but there are compelling reasons to allow its use in defined situations after initial staging has taken place (124).
    - In the event of a suspected recurrence of cervical cancer, it is critical to be able to accurately assess a patient's anatomy and the extent of cancer infiltration prior to conducting exenterative surgery and/or vaginal brachytherapy radiation treatment. This will allow more precisely targeted surgery or brachytherapy, which can reduce the extent (and related morbidity) of such treatment.
    - In cases where a woman has endometrial cancer but wishes to retain her uterus, MRI can assist in evaluating whether or not it will be possible to perform such fertility-sparing surgery. If such surgery is possible, MRI can assist a surgeon in planning the optimal surgical approach to achieve this.
    - Similarly, it is not always clear whether a patient is suitable for exenterative pelvic surgery. MRI can help to make the best decision on the suitability for, and approach to, these extensive and difficult surgical procedures.

Performing MRI for these additional indications will improve the provision of high-value and high-quality care to women with gynaecological malignancy by avoiding unnecessary surgery in patients who are unsuitable for surgery (for example, those who are inoperable due to invasion of surrounding bone or pelvic nerves), or where surgery would result in unnecessary harm or avoidable loss of fertility.

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124. RANZCOR. Greater Access to MRI for Cervical Cancer Patients. The Royal Australian and New Zealand College of Radiologists; 2017.

— Gynaecology Clinical Committee Report 2017.

We thank you for your consideration, and would be pleased to discuss this further should your Committee raise any further questions or concerns.

Yours Sincerely,

Professor Michael Permezel

Chair, Gynaecology Clinical Committee

Appendix E Referral from the Oncology Clinical Committee

Prof Ken Thomson
Chair
Diagnostic Imaging Clinical Committee
MBS Review

14 November 2016

Dear Prof Thomson,

There has been considerable discussion within the Oncology Clinical Committee (OncCC) concerning a lack of appropriate indications for funding of some diagnostic imaging through the MBS, in particular for PET/CT and MRI. We refer this issue to the Diagnostic Imaging Clinical Committee (DICC) for consideration.

Request: for the DICC to review and consider revision and/or consolidation of the current MBS Diagnostic Imaging Services Table in relation to items relevant to oncology. In particular, revision and/or consolidation of existing MRI and PET/CT items into items relating to clinical indications covering diagnosis, staging and restaging of patients with malignancies undergoing active therapy.

Context: PET/CT is more accurate for the staging and restaging of solid malignancies in oncology patients and results in management change in up to 40% of these patients. MRI is more accurate than other imaging modalities in the diagnosis, staging and restaging of several malignancies. Accurate diagnosis results in a decrease in more invasive diagnostic investigations and accurate staging leads to selection of patients for the most appropriate therapies avoiding futile surgical procedures and/or expensive, ineffective systemic therapy.

It often requires a combination of imaging techniques to accurately diagnose, stage and/or restage a patient with a malignancy: the exact combination depends on the nature of the tumour and patient-specific factors such as age and co-morbidities.

The National Institute for Health and Care Excellence (NICE) in the UK has accepted the recommendations of the Inter-Collegiate Standing Committee in Nuclear Medicine for PET/CT funding. [We cannot reference this but a number of committee members understand that this is the situation.] The 3rd revision of "Evidence-based indications for the use of PET/CT in the United Kingdom 2016" has recently been published and provides an up-to-date contemporary summary of the current evidence-based applications of PET/CT in oncology and non-oncologic disease.1 This document details the tumours and clinical scenarios where PET/CT plays an important role in guiding patient management.

The Centers for Medicare & Medicaid Services (CMS) in the US similarly now provides coverage for FDG PET, PET/CT and PET/MRI for all oncologic indications.2

The Royal College of Radiologists' Recommendations for cross-sectional imaging in cancer management, second edition3 provides a comprehensive description of best-practice and evidence-based imaging in oncology. NICE also includes recommendations for MRI in oncology. Many of the indications are for investigations not currently funded in Australia, including MRI pelvis for indeterminate ovarian masses, whole body MRI for young patients (≤24 years old) with melanoma, and whole body MRI in myeloma. The last is also the consensus position of the International Myeloma Working Group. MRI rectum is currently limited to initial staging. Current best practice is to restage with MRI after neoadjuvant treatment in order to determine the most appropriate definitive treatment of the primary tumour. MRI has the added advantages of high spatial and

contrast resolution, and no ionising radiation, an especially important consideration when imaging children or patients where cure is anticipated and long term follow up will be indicated.

It is the view of OncCC that the MBS lags far behind both the UK and US in the funding of MRI, FDG PET/CT and PET/CT with other tracers in oncology. The UK Guidelines list 87 specific clinical scenarios where evidence exists for the use of PET/CT in defining the nature and extent of a patient's oncologic disease. The CMS covers all solid tumours, listing 17 specific tumour types, and also provides coverage for other cancers not listed.

The OCC would like the DICC to consider addressing closing the gaps in coverage within the MBS funding of MRI, and PET/CT with FDG and other tracers in oncology. The specifics of the MBS item number descriptors pertaining to oncology imaging is not within the brief of the OCC but the OCC feels it appropriate to make some recommendations the DICC may wish to consider.

Recommendations: There are currently 19 MBS item numbers for FDG PET item numbers in oncology. These are subject to significant indication fragmentation. In each of the clinical scenarios below, the utility of FDG PET/CT may prevent futile attempts at curative interventions by detecting otherwise occult distant metastatic disease, reducing therapeutic costs and allowing more rational allocation of scarce or expensive therapies. As a starting point, the OncCC recommends consolidation of the current items numbers into the following 4 clinically-based indications:

1. Non-invasive characterization of mass lesions, not readily amenable to biopsy, or where biopsy attempts have failed, for likelihood of malignancy.

   Existing item numbers: 61523, 61640

2. Staging of malignancy prior to treatment or radiotherapy where there is a high risk of metastatic disease and when accurate determination of disease extent is critical to treatment selection.

   Existing item numbers: 61529, 61571, 61577, 61598, 61610, 61616, 61620

3. Assessment of therapeutic response in oncological diseases with a significant likelihood of treatment failure but for which early demonstration of treatment failure will result in a change in management plan.

   Existing item numbers: 61538, 61622, 6163

4. Evaluation of suspected residual or recurrent malignancy where curative-intent salvage therapy is planned.

   Existing item numbers: 61538, 61541, 61553, 61565, 61575, 61604, 61628, 61646

With respect to MRI, we request that the DICC review the current item numbers that limit access to MRI in oncology. We request a consideration of recommendations to improve access to MRI for indications that are not currently covered and which are standard of care in the UK, USA and elsewhere in the world. These include but are not limited to: MRI of the liver with gadoxetate disodium (e.g., Primovist)/ultrasmall superparamagnetic iron oxide (USPIO); head and neck malignancy; breasts in patients at higher risk not currently covered, with multifocal disease, or for initial staging where mammography and ultrasound are inconclusive or not concordant with clinical findings that suggest more extensive disease; ovarian masses where further characterisation is required; MRI rectum for restaging after neoadjuvant treatment; and whole body MRI for children and myeloma.

We ask that the DICC consider whether consolidation can be achieved within the framework of the MBS review and encourage the DICC to recommend action to have these investigations listed appropriately on the MBS.

Yours sincerely,

Emeritus Prof Bruce Barraclough

Chair, Oncology Clinical Committee

References

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2. https://www.cms.gov/outreach-and-education/medicare-learning-network-mln/mlnmattersarticles/downloads/MM8739.pdf

3. https://www.rcr.ac.uk/publication/recommendations-cross-sectional-imaging-cancer-management-second-edition

4. Dimopoulos M et al, International myeloma working group consensus statement and guidelines regarding the current role of imaging techniques in the diagnosis and monitoring of multiple myeloma, Leukaemia 2009; doi:10.1038/leu.2009.89

Appendix F List of items for which an attendance by a radiologist cannot be co-claimed

ULTRASOUND		MUSCULOSKELETAL
	GROUP I1 - ULTRASOUND	
	SUBGROUP 6 - MUSCULOSKELETAL	
55800	HAND OR WRIST, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $109.10 **Benefit:** 75% = $81.85 85% = $92.75	
55801	HAND OR WRIST, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $54.55 **Benefit:** 75% = $40.95 85% = $46.40	
55802	HAND OR WRIST, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) *(See para DIQ of explanatory notes to this Category)* **Fee:** $37.85 **Benefit:** 75% = $28.40 85% = $32.20	
55803	HAND OR WRIST, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $18.95 **Benefit:** 75% = $14.25 85% = $16.15	
55804	FOREARM OR ELBOW, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $109.10 **Benefit:** 75% = $81.85 85% = $92.75	
55805	FOREARM OR ELBOW, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $54.55 **Benefit:** 75% = $40.95 85% = $46.40	
55806	FOREARM OR ELBOW, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) *(See para DIQ of explanatory notes to this Category)* **Fee:** $37.85 **Benefit:** 75% = $28.40 85% = $32.20	
55807	FOREARM OR ELBOW, 1 or both sides, ultrasound scan of, where:	

	(a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $18.95 **Benefit:** 75% = $14.25 85% = $16.15
55808	SHOULDER OR UPPER ARM, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member, and where the service is provided, for the assessment of one or more of the following conditions or suspected conditions: - evaluation of injury to tendon, muscle or muscle/tendon junction; or - rotator cuff tear/calcification/tendinosis (biceps, subscapular, supraspinatus, infraspinatus); or - biceps subluxation; or - capsulitis and bursitis; or - evaluation of mass including ganglion; or - occult fracture; or - acromioclavicular joint pathology.(R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $109.10 **Benefit:** 75% = $81.85 85% = $92.75
55809	Note: Benefits are only payable when referred based on the clinical indicators outlined in the item descriptions. Benefits are not payable when referred for non-specific shoulder pain alone. SHOULDER OR UPPER ARM, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member, and where the service is provided, for the assessment of one or more of the following conditions or suspected conditions: - evaluation of injury to tendon, muscle or muscle/tendon junction; or - rotator cuff tear/calcification/tendinosis (biceps, subscapular, supraspinatus, infraspinatus); or - biceps subluxation; or - capsulitis and bursitis; or - evaluation of mass including ganglion; or - occult fracture; or - acromioclavicular joint pathology (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $54.55 Benefit: 75% = $40.95 85% = $46.40
55810	SHOULDER OR UPPER ARM, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner, and where the service is provided, for the assessment of one or more of the following conditions or suspected conditions: - evaluation of injury to tendon, muscle or muscle/tendon junction; or - rotator cuff tear/calcification/tendinosis (biceps, subscapular, supraspinatus, infraspinatus); or - biceps subluxation; or - capsulitis and bursitis; or - evaluation of mass including ganglion; or - occult fracture; or

	- acromioclavicular joint pathology.(NR) (See para DIQ of explanatory notes to this Category) Fee: $37.85 Benefit: 75% = $28.40 85% = $32.20
55811	Note: Benefits are only payable when referred based on the clinical indicators outlined in the item descriptions. Benefits are not payable when referred for non-specific shoulder pain alone. SHOULDER OR UPPER ARM, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner, and where the service is provided, for the assessment of one or more of the following conditions or suspected conditions: - evaluation of injury to tendon, muscle or muscle/tendon junction; or - rotator cuff tear/calcification/tendinosis (biceps, subscapular, suspraspinatus, infraspinatus); or - biceps subluxation; or - capsulitis and bursitis; or - evaluation of mass including ganglion; or - occult fracture; or - acromioclavicular joint pathology (NR) (NK) (See para DIQ of explanatory notes to this Category) Fee: $18.95 Benefit: 75% = $14.25 85% = $16.15
55812	CHEST OR ABDOMINAL WALL, 1 or more areas, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (See para DIQ of explanatory notes to this Category) Fee: $109.10 Benefit: 75% = $81.85 85% = $92.75
55813	CHEST OR ABDOMINAL WALL, 1 or more areas, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $54.55 Benefit: 75% = $40.95 85% = $46.40
55814	CHEST OR ABDOMINAL WALL, 1 or more areas, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (See para DIQ of explanatory notes to this Category) Fee: $37.85 Benefit: 75% = $28.40 85% = $32.20
55815	CHEST OR ABDOMINAL WALL, 1 or more areas, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (NK) (See para DIQ of explanatory notes to this Category) Fee: $18.95 Benefit: 75% = $14.25 85% = $16.15
55816	HIP OR GROIN, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (See para DIQ of explanatory notes to this Category) Fee: $109.10 Benefit: 75% = $81.85 85% = $92.75
55817	HIP OR GROIN, 1 or both sides, ultrasound scan of, where:

	(a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $54.55 Benefit: 75% = $40.95 85% = $46.40
55818	HIP OR GROIN, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies: and (b) the patient is not referred by a medical practitioner (NR) (See para DIQ of explanatory notes to this Category) Fee: $37.85 Benefit: 75% = $28.40 85% = $32.20
55819	HIP OR GROIN, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies: and (b) the patient is not referred by a medical practitioner (NR) (NK) (See para DIQ of explanatory notes to this Category) Fee: $18.95 Benefit: 75% = $14.25 85% = $16.15
55820	PAEDIATRIC HIP EXAMINATION FOR DYSPLASIA, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (See para DIQ of explanatory notes to this Category) Fee: $109.10 Benefit: 75% = $81.85 85% = $92.75
55821	PAEDIATRIC HIP EXAMINATION FOR DYSPLASIA, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $54.55 Benefit: 75% = $40.95 85% = $46.40
55822	PAEDIATRIC HIP EXAMINATION FOR DYSPLASIA, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (See para DIQ of explanatory notes to this Category) Fee: $37.85 Benefit: 75% = $28.40 85% = $32.20
55823	PAEDIATRIC HIP EXAMINATION FOR DYSPLASIA, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (NK) (See para DIQ of explanatory notes to this Category) Fee: $18.95 Benefit: 75% = $14.25 85% = $16.15
55824	BUTTOCK OR THIGH, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (See para DIQ of explanatory notes to this Category) Fee: $109.10 Benefit: 75% = $81.85 85% = $92.75
55825	BUTTOCK OR THIGH, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and

	(b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $54.55 Benefit: 75% = $40.95 85% = $46.40
55826	BUTTOCK OR THIGH, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (See para DIQ of explanatory notes to this Category) Fee: $37.85 Benefit: 75% = $28.40 85% = $32.20
55827	BUTTOCK OR THIGH, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (NK) Fee: $18.95 Benefit: 75% = $14.25 85% = $16.15
55828	Note: Benefits are only payable when referred based on the clinical indicators outlined in the item descriptions. Benefits are not payable when referred for non-specific knee pain alone or other knee condition including: - meniscal and cruciate ligament tears - assessment of chondral surfaces KNEE, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member, and where the service is provided for the assessment of one or more of the following conditions or suspected conditions: - abnormality of tendons or bursae about the knee; or - meniscal cyst, popliteal fossa cyst, mass or pseudomass; or - nerve entrapment, nerve or nerve sheath tumour; or - injury of collateral ligaments.(R) (See para DIQ of explanatory notes to this Category) Fee: $109.10 Benefit: 75% = $81.85 85% = $92.75
55829	Note: Benefits are only payable when referred based on the clinical indicators outlined in the item descriptions. Benefits are not payable when referred for non-specific knee pain alone or other knee condition including: - meniscal and cruciate ligament tears - assessment of chondral surfaces KNEE, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member, and where the service is provided for the assessment of one or more of the following conditions or suspected conditions: - abnormality of tendons or bursae about the knee; or - meniscal cyst, popliteal fossa cyst, mass or pseudomass; or - nerve entrapment, nerve or nerve sheath tumour; or - injury of collateral ligaments (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $54.55 Benefit: 75% = $40.95 85% = $46.40

55830	Note: Benefits are only payable when referred based on the clinical indicators outlined in the item descriptions. Benefits are not payable when referred for non-specific knee pain alone or other knee condition including: - meniscal and cruciate ligament tears - assessment of chondral surfaces KNEE, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner and where the service is provided for the assessment of one or more of the following conditions or suspected conditions: - abnormality of tendons or bursae about the knee; or - meniscal cyst, popliteal fossa cyst, mass or pseudomass; or - nerve entrapment, nerve or nerve sheath tumour; or - injury of collateral ligaments.(NR) (See para DIQ of explanatory notes to this Category) Fee: $37.85 Benefit: 75% = $28.40 85% = $32.20
55831	Note: Benefits are only payable when referred based on the clinical indicators outlined in the item descriptions. Benefits are not payable when referred for non-specific knee pain alone or other knee condition including: - meniscal and cruciate ligament tears - assessment of chondral surfaces KNEE, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner and where the service is provided for the assessment of one or more of the following conditions or suspected conditions: - abnormality of tendons or bursae about the knee; or - meniscal cyst, popliteal fossa cyst, mass or pseudomass; or - nerve entrapment, nerve or nerve sheath tumour; or - injury of collateral ligaments (NR) (NK) (See para DIQ of explanatory notes to this Category) Fee: $18.95 Benefit: 75% = $14.25 85% = $16.15
55832	LOWER LEG, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (See para DIQ of explanatory notes to this Category) Fee: $109.10 Benefit: 75% = $81.85 85% = $92.75
55833	LOWER LEG, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $54.55 Benefit: 75% = $40.95 85% = $46.40
55834	LOWER LEG, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (See para DIQ of explanatory notes to this Category) Fee: $37.85 Benefit: 75% = $28.40 85% = $32.20
55835	LOWER LEG, 1 or both sides, ultrasound scan of, where:

	(a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (NK) (See para DIQ of explanatory notes to this Category) Fee: $18.95 Benefit: 75% = $14.25 85% = $16.15
55836	ANKLE OR HIND FOOT, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (See para DIQ of explanatory notes to this Category) Fee: $109.10 Benefit: 75% = $81.85 85% = $92.75
55837	ANKLE OR HIND FOOT, 1 or both sides, ultrasound scan of, where: (a) the services is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $54.55 Benefit: 75% = $40.95 85% = $46.40
55838	ANKLE OR HIND FOOT, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (See para DIQ of explanatory notes to this Category) Fee: $37.85 Benefit: 75% = $28.40 85% = $32.20
55839	ANKLE OR HIND FOOT, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (NK) (See para DIQ of explanatory notes to this Category) Fee: $18.95 Benefit: 75% = $14.25 85% = $16.15
55840	MID FOOT OR FORE FOOT, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (See para DIQ of explanatory notes to this Category) Fee: $109.10 Benefit: 75% = $81.85 85% = $92.75
55841	MID FOOT OR FORE FOOT, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $54.55 Benefit: 75% = $40.95 85% = $46.40
55842	MID FOOT OR FORE FOOT, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (See para DIQ of explanatory notes to this Category) Fee: $37.85 Benefit: 75% = $28.40 85% = $32.20
55843	MID FOOT OR FORE FOOT, 1 or both sides, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (NK)

	(See para DIQ of explanatory notes to this Category) Fee: $18.95 Benefit: 75% = $14.25 85% = $16.15
55844	ASSESSMENT OF A MASS ASSOCIATED WITH THE SKIN OR SUBCUTANEOUS STRUCTURES, NOT BEING A PART OF THE MUSCULOSKELETAL SYSTEM, 1 or more areas, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (See para DIQ of explanatory notes to this Category) Fee: $87.35 Benefit: 75% = $65.55 85% = $74.25
55845	ASSESSMENT OF A MASS ASSOCIATED WITH THE SKIN OR SUBCUTANEOUS STRUCTURES, NOT BEING A PART OF THE MUSCULOSKELETAL SYSTEM, 1 or more areas, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $43.70 Benefit: 75% = $32.80 85% = $37.15
55846	ASSESSMENT OF A MASS ASSOCIATED WITH THE SKIN OR SUBCUTANEOUS STRUCTURES, NOT BEING A PART OF THE MUSCULOSKELETAL SYSTEM, 1 or more areas, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (See para DIQ of explanatory notes to this Category) Fee: $37.85 Benefit: 75% = $28.40 85% = $32.20
55847	ASSESSMENT OF A MASS ASSOCIATED WITH THE SKIN OR SUBCUTANEOUS STRUCTURES, NOT BEING A PART OF THE MUSCULOSKELETAL SYSTEM, 1 or more areas, ultrasound scan of, where: (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and (b) the patient is not referred by a medical practitioner (NR) (NK) (See para DIQ of explanatory notes to this Category) Fee: $18.95 Benefit: 75% = $14.25 85% = $16.15
55848	MUSCULOSKELETAL CROSS-SECTIONAL ECHOGRAPHY, in conjunction with a surgical procedure using interventional techniques, not being a service associated with a service to which any other item in this group applies, and not performed in conjunction with item 55054 (R) (See para DIQ of explanatory notes to this Category) Fee: $109.10 Benefit: 75% = $81.85 85% = $92.75
55849	MUSCULOSKELETAL CROSS-SECTIONAL ECHOGRAPHY, in conjunction with a surgical procedure using interventional techniques, not being a service associated with a service to which any other item in this group applies, and not performed in conjunction with item 55054 or 55026 (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $54.55 Benefit: 75% = $40.95 85% = $46.40
55850	MUSCULOSKELETAL CROSS-SECTIONAL ECHOGRAPHY, in conjunction with a surgical procedure using interventional techniques, inclusive of a diagnostic musculoskeletal ultrasound service, where: (a) the referring practitioner has indicated on a referral for a musculoskeletal ultrasound that a ultrasound guided intervention be performed if clinically indicated; (b) the service is not performed in conjunction with items 55054, or 55800 to 55848, and (c) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (See para DIQ of explanatory notes to this Category) Fee: $152.85 Benefit: 75% = $114.65 85% = $129.95
55851	MUSCULOSKELETAL CROSS-SECTIONAL ECHOGRAPHY, in conjunction with a surgical procedure using interventional techniques, inclusive of a diagnostic musculoskeletal ultrasound service, where:

	(a) the referring practitioner has indicated on a referral for a musculoskeletal ultrasound that a ultrasound guided intervention be performed if clinically indicated; (b) the service is not performed in conjunction with items 55026, 55054, or 55800 to 55849, and (c) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $76.45 Benefit: 75% = $57.35 85% = $65.00
55852	PAEDIATRIC SPINE, SPINAL CORD AND OVERLYING SUBCUTANEOUS TISSUES, ultrasound scan of, where: a) the patient is referred by a referring practitioner b) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and c) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (See para DIQ of explanatory notes to this Category) Fee: $109.10 Benefit: 75% = $81.85 85% = $92.75
55853	PAEDIATRIC SPINE, SPINAL CORD AND OVERLYING SUBCUTANEOUS TISSUES, ultrasound scan of, where: a) the patient is referred by a medical practitioner b) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and c) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $54.55 Benefit: 75% = $40.95 85% = $46.40
55854	PAEDIATRIC SPINE, SPINAL CORD AND OVERLYING SUBCUTANEOUS TISSUES, ultrasound scan of, where: a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and b) the patient is not referred by a medical practitioner (NR) (See para DIQ of explanatory notes to this Category) Fee: $37.85 Benefit: 75% = $28.40 85% = $32.20
55855	PAEDIATRIC SPINE, SPINAL CORD AND OVERLYING SUBCUTANEOUS TISSUES, ultrasound scan of, where: a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and b) the patient is not referred by a medical practitioner (NR) (NK) (See para DIQ of explanatory notes to this Category) Fee: $18.95 Benefit: 75% = $14.25 85% = $16.15

DIAGNOSTIC RADIOLOGY			**EXTREMITIES**
	GROUP I3 - DIAGNOSTIC RADIOLOGY		
	SUBGROUP 1 - RADIOGRAPHIC EXAMINATION OF EXTREMITIES		
57506	HAND, WRIST, FOREARM, ELBOW OR HUMERUS (NR) *(See para DIQ of explanatory notes to this Category)* **Fee:** $29.75	**Benefit:** 75% = $22.35	85% = $25.30
57509	HAND, WRIST, FOREARM, ELBOW OR HUMERUS (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $39.75	**Benefit:** 75% = $29.85	85% = $33.80
57512	HAND AND WRIST OR HAND, WRIST AND FOREARM OR FOREARM AND ELBOW OR ELBOW AND HUMERUS (NR) *(See para DIQ of explanatory notes to this Category)* **Fee:** $40.50	**Benefit:** 75% = $30.40	85% = $34.45
57515	HAND AND WRIST OR HAND, WRIST AND FOREARM OR FOREARM AND ELBOW OR ELBOW AND HUMERUS (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $54.00	**Benefit:** 75% = $40.50	85% = $45.90
57518	FOOT, ANKLE, LEG, KNEE OR FEMUR (NR) *(See para DIQ of explanatory notes to this Category)* **Fee:** $32.50	**Benefit:** 75% = $24.40	85% = $27.65

57521	FOOT, ANKLE, LEG, KNEE OR FEMUR (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $43.40 **Benefit:** 75% = $32.55 85% = $36.90
57524	FOOT AND ANKLE, OR ANKLE AND LEG, OR LEG AND KNEE, OR KNEE AND FEMUR (NR) *(See para DIQ of explanatory notes to this Category)* **Fee:** $49.40 **Benefit:** 75% = $37.05 85% = $42.00
57527	FOOT AND ANKLE, OR ANKLE AND LEG, OR LEG AND KNEE, OR KNEE AND FEMUR (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $65.75 **Benefit:** 75% = $49.35 85% = $55.90
57529	HAND, WRIST, FOREARM, ELBOW OR HUMERUS (NR) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $14.90 **Benefit:** 75% = $11.20 85% = $12.70
57530	HAND, WRIST, FOREARM, ELBOW OR HUMERUS (R) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $19.90 **Benefit:** 75% = $14.95 85% = $16.95
57532	HAND AND WRIST OR HAND, WRIST AND FOREARM OR FOREARM AND ELBOW OR ELBOW AND HUMERUS (NR) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $20.25 **Benefit:** 75% = $15.20 85% = $17.25
57533	HAND AND WRIST OR HAND, WRIST AND FOREARM OR FOREARM AND ELBOW OR ELBOW AND HUMERUS (R) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $27.00 **Benefit:** 75% = $20.25 85% = $22.95
57535	FOOT, ANKLE, LEG, KNEE OR FEMUR (NR) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $16.25 **Benefit:** 75% = $12.20 85% = $13.85
57536	FOOT, ANKLE, LEG, KNEE OR FEMUR (R) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $21.70 **Benefit:** 75% = $16.30 85% = $18.45
57538	FOOT AND ANKLE, OR ANKLE AND LEG, OR LEG AND KNEE, OR KNEE AND FEMUR (NR) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $24.70 **Benefit:** 75% = $18.55 85% = $21.00
57539	FOOT AND ANKLE, OR ANKLE AND LEG, OR LEG AND KNEE, OR KNEE AND FEMUR (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $32.90 Benefit: 75% = $24.70 85% = $28.00

	SUBGROUP 2 - RADIOGRAPHIC EXAMINATION OF SHOULDER OR PELVIS
57700	SHOULDER OR SCAPULA (NR) *(See para DIQ of explanatory notes to this Category)* **Fee:** $40.50 **Benefit:** 75% = $30.40 85% = $34.45
57702	SHOULDER OR SCAPULA (NR) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $20.25 **Benefit:** 75% = $15.20 85% = $17.25
57703	SHOULDER OR SCAPULA (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $54.00 **Benefit:** 75% = $40.50 85% = $45.90
57705	SHOULDER OR SCAPULA (R) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $27.00 **Benefit:** 75% = $20.25 85% = $22.95
57706	CLAVICLE (NR) *(See para DIQ of explanatory notes to this Category)* **Fee:** $32.50 **Benefit:** 75% = $24.40 85% = $27.65
57708	CLAVICLE (NR) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $16.25 **Benefit:** 75% = $12.20 85% = $13.85
57709	CLAVICLE (R) *(See para DIQ of explanatory notes to this Category)*

	Fee: $43.40	**Benefit:** 75% = $32.55	85% = $36.90
	CLAVICLE (R) (NK)		
	(See para DIQ of explanatory notes to this Category)		
57711	**Fee:** $21.70	**Benefit:** 75% = $16.30	85% = $18.45
	HIP JOINT (R)		
	(See para DIQ of explanatory notes to this Category)		
57712	**Fee:** $47.15	**Benefit:** 75% = $35.40	85% = $40.10
	HIP JOINT (R) (NK)		
	(See para DIQ of explanatory notes to this Category)		
57714	**Fee:** $23.60	**Benefit:** 75% = $17.70	85% = $20.10
	PELVIC GIRDLE (R)		
	(See para DIQ of explanatory notes to this Category)		
57715	**Fee:** $60.90	**Benefit:** 75% = $45.70	85% = $51.80
	PELVIC GIRDLE (R) (NK)		
	(See para DIQ of explanatory notes to this Category)		
57717	**Fee:** $30.45	**Benefit:** 75% = $22.85	85% = $25.90
	FEMUR, internal fixation of neck or intertrochanteric (pertrochanteric) fracture (R)		
	(See para DIQ of explanatory notes to this Category)		
57721	**Fee:** $99.25	**Benefit:** 75% = $74.45	85% = $84.40
	FEMUR, internal fixation of neck or intertrochanteric (pertrochanteric) fracture (R) (NK)		
	(See para DIQ of explanatory notes to this Category)		
57723	**Fee:** $49.65	**Benefit:** 75% = $37.25	85% = $42.25

	SUBGROUP 3 - RADIOGRAPHIC EXAMINATION OF HEAD
	SKULL, not in association with item 57902 (R)
	(See para DIQ of explanatory notes to this Category)
57901	**Fee:** $64.50 **Benefit:** 75% = $48.40 85% = $54.85
	CEPHALOMETRY, not in association with item 57901 (R)
	(See para DIQ of explanatory notes to this Category)
57902	Fee: $64.50 Benefit: 75% = $48.40 85% = $54.85
	SINUSES (R)
	(See para DIQ of explanatory notes to this Category)
57903	Fee: $47.30 Benefit: 75% = $35.50 85% = $40.25
	MASTOIDS (R)
	(See para DIQ of explanatory notes to this Category)
57906	Fee: $64.50 Benefit: 75% = $48.40 85% = $54.85
	PETROUS TEMPORAL BONES (R)
	(See para DIQ of explanatory notes to this Category)
57909	Fee: $64.50 Benefit: 75% = $48.40 85% = $54.85
	SKULL, not in association with item 57902 or 57914 (R) (NK)
	(See para DIQ of explanatory notes to this Category)
57911	Fee: $32.25 Benefit: 75% = $24.20 85% = $27.45
	FACIAL BONES orbit, maxilla or malar, any or all (R)
	(See para DIQ of explanatory notes to this Category)
57912	Fee: $47.15 Benefit: 75% = $35.40 85% = $40.10
	CEPHALOMETRY, not in association with item 57901 or 57911 (R) (NK)
	(See para DIQ of explanatory notes to this Category)
57914	Fee: $32.25 Benefit: 75% = $24.20 85% = $27.45
	MANDIBLE, not by orthopantomography technique (R)
	(See para DIQ of explanatory notes to this Category)
57915	Fee: $47.15 Benefit: 75% = $35.40 85% = $40.10
	SINUSES (R) (NK)
	(See para DIQ of explanatory notes to this Category)
57917	Fee: $23.65 Benefit: 75% = $17.75 85% = $20.15

57918	SALIVARY CALCULUS (R) (See para DIQ of explanatory notes to this Category) Fee: $47.15 Benefit: 75% = $35.40 85% = $40.10
57920	MASTOIDS (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $32.25 Benefit: 75% = $24.20 85% = $27.45
57921	NOSE (R) (See para DIQ of explanatory notes to this Category) Fee: $47.15 Benefit: 75% = $35.40 85% = $40.10
57923	PETROUS TEMPORAL BONES (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $32.25 Benefit: 75% = $24.20 85% = $27.45
57924	EYE (R) (See para DIQ of explanatory notes to this Category) Fee: $47.15 Benefit: 75% = $35.40 85% = $40.10
57926	FACIAL BONES orbit, maxilla or malar, any or all (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.60 Benefit: 75% = $17.70 85% = $20.10
57927	TEMPOROMANDIBULAR JOINTS (R) (See para DIQ of explanatory notes to this Category) Fee: $49.65 Benefit: 75% = $37.25 85% = $42.25
57929	MANDIBLE, not by orthopantomography technique (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.60 Benefit: 75% = $17.70 85% = $20.10
57930	TEETH SINGLE AREA (R) (See para DIQ of explanatory notes to this Category) Fee: $32.90 Benefit: 75% = $24.70 85% = $28.00
57932	SALIVARY CALCULUS (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.60 Benefit: 75% = $17.70 85% = $20.10
57933	TEETH FULL MOUTH (R) (See para DIQ of explanatory notes to this Category) Fee: $78.25 Benefit: 75% = $58.70 85% = $66.55
57935	NOSE (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.60 Benefit: 75% = $17.70 85% = $20.10
57938	EYE (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.60 Benefit: 75% = $17.70 85% = $20.10
57939	PALATOPHARYNGEAL STUDIES with fluoroscopic screening (R) (See para DIQ of explanatory notes to this Category) Fee: $64.50 Benefit: 75% = $48.40 85% = $54.85
57941	TEMPOROMANDIBULAR JOINTS (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $24.85 Benefit: 75% = $18.65 85% = $21.15
57942	PALATOPHARYNGEAL STUDIES without fluoroscopic screening (R) (See para DIQ of explanatory notes to this Category) Fee: $49.65 Benefit: 75% = $37.25 85% = $42.25
57944	TEETH SINGLE AREA (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $16.45 Benefit: 75% = $12.35 85% = $14.00
57945	LARYNX, LATERAL AIRWAYS AND SOFT TISSUES OF THE NECK, not being a service associated with a service to which item 57939 or 57942 applies (R) (See para DIQ of explanatory notes to this Category) Fee: $43.40 Benefit: 75% = $32.55 85% = $36.90

57947	TEETH FULL MOUTH (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $39.15 Benefit: 75% = $29.40 85% = $33.30
57950	PALATOPHARYNGEAL STUDIES with fluoroscopic screening (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $32.25 Benefit: 75% = $24.20 85% = $27.45
57953	PALATOPHARYNGEAL STUDIES without fluoroscopic screening (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $24.85 Benefit: 75% = $18.65 85% = $21.15
57956	LARYNX, LATERAL AIRWAYS AND SOFT TISSUES OF THE NECK, not being a service associated with a service to which item 57939, 57942, 57950 or 57953 applies (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $21.70 Benefit: 75% = $16.30 85% = $18.45
57959	Orthopantomography, for diagnosis and/or management of trauma, infection, tumours, congenital conditions or surgical conditions of the teeth or maxillofacial region (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.70 Benefit: 75% = $17.80 85% = $20.15
57960	Orthopantomography, for diagnosis and/or management of trauma, infection, tumours, congenital conditions or surgical conditions of the teeth or maxillofacial region (R) (See para DIQ of explanatory notes to this Category) Fee: $47.40 Benefit: 75% = $35.55 85% = $40.30
57962	Orthopantomography, for diagnosis and/or management of impacted teeth, caries, periodontal or peripical pathology where signs or symptoms of those conditions are evident (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.70 Benefit: 75% = $17.80 85% = $20.15
57963	Orthopantomography, for diagnosis and/or management of impacted teeth, caries, periodontal or peripical pathology where signs or symptoms of those conditions are evident (R) (See para DIQ of explanatory notes to this Category) Fee: $47.40 Benefit: 75% = $35.55 85% = $40.30
57965	Orthopantomography, for diagnosis and/or management of missing or crowded teeth, or developmental anomalies of the teeth or jaws (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.70 Benefit: 75% = $17.80 85% = $20.15
57966	Orthopantomography, for diagnosis and/or management of missing or crowded teeth, or developmental anomalies of the teeth or jaws (R) (See para DIQ of explanatory notes to this Category) Fee: $47.40 Benefit: 75% = $35.55 85% = $40.30
57968	Orthopantomography, for diagnosis and/or management of temporomandibular joint arthroses or dysfunction (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.70 Benefit: 75% = $17.80 85% = $20.15
57969	Orthopantomography, for diagnosis and/or management of temporomandibular joint arthroses or dysfunction (R) (See para DIQ of explanatory notes to this Category) Fee: $47.40 Benefit: 75% = $35.55 85% = $40.30

	SUBGROUP 4 - RADIOGRAPHIC EXAMINATION OF SPINE
58100	SPINE CERVICAL (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $67.15 **Benefit:** 75% = $50.40 85% = $57.10
58102	SPINE CERVICAL (R) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $33.60 **Benefit:** 75% = $25.20 85% = $28.60
58103	SPINE THORACIC (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $55.10 **Benefit:** 75% = $41.35 85% = $46.85

58105	SPINE THORACIC (R) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $27.55 **Benefit:** 75% = $20.70 85% = $23.45
58106	SPINE LUMBOSACRAL (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $77.00 **Benefit:** 75% = $57.75 85% = $65.45
58108	Spine, four regions, cervical, thoracic, lumbosacral and sacrococcygeal (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $110.00 **Benefit:** 75% = $82.50 85% = $93.50
58109	SPINE SACROCOCCYGEAL (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $47.00 **Benefit:** 75% = $35.25 85% = $39.95
58111	SPINE LUMBOSACRAL (R) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $38.50 **Benefit:** 75% = $28.90 85% = $32.75
58112	NOTE: An account issued or a patient assignment form must show the item numbers of the examinations performed under this item Spine, two examinations of the kind referred to in items 58100, 58103, 58106 and 58109 (R) (See para DIQ of explanatory notes to this Category) Fee: $97.25 Benefit: 75% = $72.95 85% = $82.70
58114	Spine, four regions, cervical, thoracic, lumbosacral and sacrococcygeal (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $55.00 Benefit: 75% = $41.25 85% = $46.75
58115	NOTE: An account issued or a patient assignment form must show the item numbers of the examinations performed under this item Spine, three examinations of the kind mentioned in items 58100, 58103, 58106 and 58109 (R) (See para DIQ of explanatory notes to this Category) Fee: $110.00 Benefit: 75% = $82.50 85% = $93.50
58117	SPINE SACROCOCCYGEAL (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.50 Benefit: 75% = $17.65 85% = $20.00
58120	Spine, four regions, cervical, thoracic, lumbosacral and sacrococcygeal (R), if the service to which item 58120 or 58121 applies has not been performed on the same patient within the same calendar year Fee: $110.00 Benefit: 75% = $82.50 85% = $93.50
58121	NOTE: An account issued or a patient assignment form must show the item numbers of the examinations performed under this item Spine, three examinations of the kind mentioned in items 58100, 58103, 58106 and 58109 (R), if the service to which item 58120 or 58121 applies has not been performed on the same patient within the same calendar year Fee: $110.00 Benefit: 75% = $82.50 85% = $93.50
58123	NOTE: An account issued or a patient assignment form must show the item numbers of the examinations performed under this item Spine, two examinations of the kind referred to in items 58100, 58102, 58103, 58105, 58106, 58109, 58111 and 58117 (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $48.65 Benefit: 75% = $36.50 85% = $41.40
58124	NOTE: An account issued or a patient assignment form must show the item numbers of the examinations performed under this item Spine, three examinations of the kind mentioned in items 58100, 58102, 58103, 58105, 58106, 58109, 58111 and 58117 (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $55.00 Benefit: 75% = $41.25 85% = $46.75
58126	Spine, four regions, cervical, thoracic, lumbosacral and sacrococcygeal, if the service to which item 58120, 58121, 58126 or 58127 applies has not been performed on the same patient within the same calendar year (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $55.00 Benefit: 75% = $41.25 85% = $46.75

	NOTE: An account issued or a patient assignment form must show the item numbers of the examinations performed under this item Spine, three examinations of the kind mentioned in items 58100, 58102, 58103, 58105, 58106 and 58109, 58111 and 58117 if the service to which item 58120, 58121, 58126 or 58127 applies has not been performed on the same patient within the same calendar year (R) (NK) (See para DIQ of explanatory notes to this Category)
58127	Fee: $55.00 Benefit: 75% = $41.25 85% = $46.75

	SUBGROUP 5 - BONE AGE STUDY AND SKELETAL SURVEYS
	BONE AGE STUDY (R) *(See para DIQ of explanatory notes to this Category)*
58300	**Fee:** $40.10 **Benefit:** 75% = $30.10 85% = $34.10
	BONE AGE STUDY (R) (NK) (See para DIQ of explanatory notes to this Category)
58302	Fee: $20.05 Benefit: 75% = $15.05 85% = $17.05
	SKELETAL SURVEY (R) (See para DIQ of explanatory notes to this Category)
58306	Fee: $89.40 Benefit: 75% = $67.05 85% = $76.00
	SKELETAL SURVEY (R) (NK) (See para DIQ of explanatory notes to this Category)
58308	Fee: $44.70 Benefit: 75% = $33.55 85% = $38.00

	SUBGROUP 6 - RADIOGRAPHIC EXAMINATION OF THORACIC REGION
	CHEST (lung fields) by direct radiography (NR) *(See para DIQ of explanatory notes to this Category)*
58500	**Fee:** $35.35 **Benefit:** 75% = $26.55 85% = $30.05
	CHEST (lung fields) by direct radiography (NR) (NK) *(See para DIQ of explanatory notes to this Category)*
58502	**Fee:** $17.70 **Benefit:** 75% = $13.30 85% = $15.05
	CHEST (lung fields) by direct radiography (R) *(See para DIQ of explanatory notes to this Category)*
58503	**Fee:** $47.15 **Benefit:** 75% = $35.40 85% = $40.10
	CHEST (lung fields) by direct radiography (R) (NK) *(See para DIQ of explanatory notes to this Category)*
58505	**Fee:** $23.60 **Benefit:** 75% = $17.70 85% = $20.10
	CHEST (lung fields) by direct radiography with fluoroscopic screening (R) *(See para DIQ of explanatory notes to this Category)*
58506	**Fee:** $60.75 **Benefit:** 75% = $45.60 85% = $51.65
	CHEST (lung fields) by direct radiography with fluoroscopic screening (R) (NK) *(See para DIQ of explanatory notes to this Category)*
58508	**Fee:** $30.40 **Benefit:** 75% = $22.80 85% = $25.85
	THORACIC INLET OR TRACHEA (R) *(See para DIQ of explanatory notes to this Category)*
58509	**Fee:** $39.75 **Benefit:** 75% = $29.85 85% = $33.80
	THORACIC INLET OR TRACHEA (R) (NK) *(See para DIQ of explanatory notes to this Category)*
58511	**Fee:** $19.90 **Benefit:** 75% = $14.95 85% = $16.95
	LEFT RIBS, RIGHT RIBS OR STERNUM (R) *(See para DIQ of explanatory notes to this Category)*
58521	**Fee:** $43.40 **Benefit:** 75% = $32.55 85% = $36.90
	LEFT RIBS, RIGHT RIBS OR STERNUM (R) (NK) *(See para DIQ of explanatory notes to this Category)*
58523	**Fee:** $21.70 **Benefit:** 75% = $16.30 85% = $18.45
	LEFT AND RIGHT RIBS, LEFT RIBS AND STERNUM, OR RIGHT RIBS AND STERNUM (R)
58524	*(See para DIQ of explanatory notes to this Category)*

	Fee: $56.50 **Benefit:** 75% = $42.40 85% = $48.05
58526	LEFT AND RIGHT RIBS, LEFT RIBS AND STERNUM, OR RIGHT RIBS AND STERNUM (R) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $28.25 **Benefit:** 75% = $21.20 85% = $24.05
58527	LEFT RIBS, RIGHT RIBS AND STERNUM (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $69.40 **Benefit:** 75% = $52.05 85% = $59.00
58529	LEFT RIBS, RIGHT RIBS AND STERNUM (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $34.70 Benefit: 75% = $26.05 85% = $29.50
	SUBGROUP 7 - RADIOGRAPHIC EXAMINATION OF URINARY TRACT
58700	PLAIN RENAL ONLY (R) (See para DIQ of explanatory notes to this Category) Fee: $46.05 Benefit: 75% = $34.55 85% = $39.15
58702	PLAIN RENAL ONLY (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.05 Benefit: 75% = $17.30 85% = $19.60
58706	INTRAVENOUS PYELOGRAPHY, with or without preliminary plain films and with or without tomography - (R) (See para DIQ of explanatory notes to this Category) Fee: $157.90 Benefit: 75% = $118.45 85% = $134.25
58708	INTRAVENOUS PYELOGRAPHY, with or without preliminary plain films and with or without tomography - (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $78.95 Benefit: 75% = $59.25 85% = $67.15
58715	ANTEGRADE OR RETROGRADE PYELOGRAPHY, with or without preliminary plain films and with preparation and contrast injection - 1 side - (R) (See para DIQ of explanatory notes to this Category) Fee: $151.55 Benefit: 75% = $113.70 85% = $128.85
58717	ANTEGRADE OR RETROGRADE PYELOGRAPHY, with or without preliminary plain films and with preparation and contrast injection - 1 side - (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $75.80 Benefit: 75% = $56.85 85% = $64.45
58718	RETROGRADE CYSTOGRAPHY OR RETROGRADE URETHROGRAPHY with or without preliminary plain films and with preparation and contrast injection - (R) (Anaes.) (See para DIQ of explanatory notes to this Category) Fee: $126.10 Benefit: 75% = $94.60 85% = $107.20
58720	RETROGRADE CYSTOGRAPHY OR RETROGRADE URETHROGRAPHY with or without preliminary plain films and with preparation and contrast injection - (R) (NK) (Anaes.) (See para DIQ of explanatory notes to this Category) Fee: $63.05 Benefit: 75% = $47.30 85% = $53.60
58721	RETROGRADE MICTURATING CYSTOURETHROGRAPHY, with preparation and contrast injection - (R) (Anaes.) (See para DIQ of explanatory notes to this Category) Fee: $138.25 Benefit: 75% = $103.70 85% = $117.55
58723	RETROGRADE MICTURATING CYSTOURETHROGRAPHY, with preparation and contrast injection - (R) (NK) (Anaes.) (See para DIQ of explanatory notes to this Category) Fee: $69.15 Benefit: 75% = $51.90 85% = $58.80

	SUBGROUP 8 - RADIOGRAPHIC EXAMINATION OF ALIMENTARY TRACT AND BILIARY SYSTEM
Amend 58900	PLAIN ABDOMINAL ONLY, not being a service associated with a service to which item 58909, 58912 or 58915 applies (NR) *(See para DIQ of explanatory notes to this Category)* **Fee:** $35.70 **Benefit:** 75% = $26.80 85% = $30.35
Amend 58902	PLAIN ABDOMINAL ONLY, not being a service associated with a service to which item 58909, 58911, 58912, 58914, 58915 or 58917 applies (NR) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $17.85 **Benefit:** 75% = $13.40 85% = $15.20

Amend 58903	PLAIN ABDOMINAL ONLY, not being a service associated with a service to which item 58909, 58912 or 58915 applies (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $47.60 **Benefit:** 75% = $35.70 85% = $40.50
Amend 58905	PLAIN ABDOMINAL ONLY, not being a service associated with a service to which item 58909, 58911, 58912, 58914, 58915 or 58917 applies (R) (NK) (See para DIQ of explanatory notes to this Category) Fee: $23.80 Benefit: 75% = $17.85 85% = $20.25

	SUBGROUP 9 - RADIOGRAPHIC EXAMINATION FOR LOCALISATION OF FOREIGN BODIES
59103	Localisation of foreign body, if provided in conjunction with a service described in Subgroups 1 to 12 of Group I3 (R) *(See para DIQ of explanatory notes to this Category)* **Fee:** $21.30 **Benefit:** 75% = $16.00 85% = $18.15
59104	Localisation of foreign body, if provided in conjunction with a service described in Subgroups 1 to 12 of Group I3 (R) (NK) *(See para DIQ of explanatory notes to this Category)* **Fee:** $10.65 **Benefit:** 75% = $8.00 85% = $9.10

	SUBGROUP 14 - TOMOGRAPHY
60100	TOMOGRAPHY OF ANY REGION (R) (Anaes.) *(See para DIQ of explanatory notes to this Category)* **Fee:** $60.75 **Benefit:** 75% = $45.60 85% = $51.65
60101	TOMOGRAPHY OF ANY REGION (R) (NK) (Anaes.) *(See para DIQ of explanatory notes to this Category)* **Fee:** $30.40 **Benefit:** 75% = $22.80 85% = $25.85

Appendix G Relevant legislation and explanatory notes

Health Insurance Regulations 1975

29 Manner of patient referrals

(1) For section 132A of the Act, this regulation and regulations 30 and 31 set out the manner in which a patient is to be referred by a referring practitioner to another practitioner for the purposes of:
  (a) an item in the general medical services table; or
  (b) an item in a determination made under subsection 3C(1) of the Act; specifying a service to be rendered by a specialist or consultant physician, in the practice of his or her speciality, to a patient referred to the specialist or consultant physician.

(2) The referring practitioner must consider the need for the referral.

(3) The referral must give the specialist, or consultant physician, any information about the patient's condition that the referring practitioner considers necessary.

(4) Unless subregulation 30(1) or (2) applies, a referral must be:
  (a) given in writing; and
  (b) signed by the referring practitioner; and
  (c) dated.

(4A) If the referring practitioner is a specialist, or consulting physician, the referral must:
  (a) be endorsed with the name of the general practitioner, participating midwife or participating nurse practitioner nominated by the patient; or
  (b) if the patient is unwilling or unable to nominate a general practitioner, participating midwife or participating nurse practitioner for the purposes of paragraph (a)—contain a statement to that effect.

(5) Unless subregulation 30(3) applies, the specialist or consultant physician must receive the referral before giving the service to the patient.

MBS Book

G.6.1. Referral Of Patients To Specialists Or Consultant Physicians

For certain services provided by specialists and consultant physicians, the benefit payable is dependent on acceptable evidence that the service has been provided following referral from another practitioner.

A reference to a referral in this Section does not refer to written requests made for pathology services or diagnostic imaging services.

What is a Referral?

A "referral" is a request to a specialist or a consultant physician for investigation, opinion, treatment and/or management of a condition or problem of a patient or for the performance of a specific examination(s) or test(s).

Subject to the exceptions in the paragraph below, for a valid "referral" to take place

(i) the referring practitioner must have undertaken a professional attendance with the patient and turned his or her mind to the patient's need for referral and have communicated relevant information about the patient to the specialist or consultant physician (this need not mean an attendance on the occasion of the referral);

(ii) the instrument of referral must be in writing as a letter or note to a specialist or to a consultant physician and must be signed and dated by the referring practitioner; and

(iii) the specialist or consultant physician to whom the patient is referred must have received the instrument of referral on or prior to the occasion of the professional service to which the referral relates.

Health Insurance Regulations 1975

19 Information that must be included in requests for diagnostic imaging services

(1) For the purposes of subsection 23DQ(1) of the Act, the following information must be included in a subsection 16B(1) request:

(a) the name and either:

(i) the address of the place of practice; or

(ii) the provider number in respect of the place of practice; of the requesting practitioner;

(b) the date of the request;

(c) a description of the diagnostic imaging service;

(d) if all of the following circumstances apply—a statement that informs the patient that the request may be taken to a diagnostic imaging provider of the patient's choice:

(i) the request is made on a document for use by requesting practitioners in making subsection 16B(1) requests; and

(ii) the document is supplied, or made available to, a requesting practitioner by a diagnostic imaging provider on or after 1 August 2012; and

(iii) the document contains relevant information about the diagnostic imaging provider at the time the document is supplied or made available.

(2) For the purposes of subregulation (1), a description of the diagnostic imaging service must provide, in terms that are generally understood throughout the medical profession, sufficient information to identify the item of the diagnostic imaging services table that relates to the service but it need not specify the item number.

(3) In this regulation:

diagnostic imaging provider means a person who:

(a) renders diagnostic imaging services; or

(b) carries on the business of rendering diagnostic imaging services; or

(c) employs, or engages under a contract of service, a person mentioned in paragraph (a) or (b).

relevant information means:

(a) the registered name or trading name of the diagnostic imaging provider; and

(b) one or more locations of the diagnostic imaging provider if diagnostic imaging services are rendered at the location.

MBS Book

DID REQUESTS FOR DIAGNOSTIC IMAGING SERVICES

Request requirements

I benefits are not payable for diagnostic imaging services that are classified as R-type (requested) services unless prior to commencing the relevant service, the practitioner receives a signed and dated request from a requesting practitioner who determined the service was necessary.

Before requesting a diagnostic imaging service, the requesting practitioner must turn his or her mind to the clinical relevance of the request and determine that the service is necessary for the appropriate professional care of the patient. For example: an ultrasound to determine the sex of a foetus is not a clinically relevant service (unless there is an indication that the sex of the foetus will determine further courses of treatment, e.g. A genetic background to a sex-related disease or condition).

There are exemptions to the request requirements in specified circumstances. These circumstances are detailed under DID –'Exemptions from the written request requirements for R-type diagnostic imaging services'.

Appendix H Summary of key aspects of life ages and exemptions for specific diagnostic imaging modalities (as at June 2015)

MODALITY	MBS ITEM NUMBERS	EFFECTIVE LIFE AGE	MAXIMUM EXTENDED LIFE AGE	EXEMPTIONS	APPLIED SINCE
Ultrasound	55005-55855	10 years	15 years	*Automatic:* RA2 (outer regional), RA3 (remote), RA4 (very remote) *Department:* RA1 (inner regional) and RRMA4 (small rural) or RRMA5 (other rural)	1 July 2011
CT	56001-57361	10 years	15 years	*Automatic:* RA2 (outer regional), RA3 (remote), RA4 (very remote) *Department:* RA1 (inner regional) and RRMA4 (small rural) or RRMA5 (other rural)	1 November 1997 1 January 2015 (intro max life)
X-ray	57529-57723 58102-59104 59504-60101	15 years	20 years	*Automatic:* RA2 (outer regional), RA3 (remote), RA4 (very remote) *Department:* RA1 (inner regional) and RRMA4 (small rural) or RRMA5 (other rural)	1 July 2011
OPG	57911-57968	15 years	20 years	*Automatic:* RA2 (outer regional), RA3 (remote), RA4 (very remote) *Department:* RA1 (inner regional) and RRMA4 (small rural) or RRMA5 (other rural)	1 July 2011
Mammography	59301-59319	10 years	15 years	*Automatic:* RA2 (outer regional), RA3 (remote), RA4 (very remote) *Department:* RA1 (inner regional) and RRMA4 (small rural) or RRMA5 (other rural)	1 July 2011
Angiography	59903-60078	10 years	15 years	*Automatic:* RA2 (outer regional), RA3 (remote), RA4 (very remote) *Department:* RA1 (inner regional) and RRMA4 (small rural) or RRMA5 (other rural)	1 November 2001 1 January 2015 (intro max life)
Fluoroscopy	60501-61110	15 years	20 years	*Automatic:* RA2 (outer regional), RA3 (remote), RA4 (very remote) *Department:* RA1 (inner regional) and RRMA4 (small rural) or RRMA5 (other rural)	1 July 2011
Nuclear Medicine (excluding PET)	61302-61505 61650-61729	10 years	15 years	*Automatic:* RA2 (outer regional), RA3 (remote), RA4 (very remote) *Department:* RA1 (inner regional) and RRMA4 (small rural) or RRMA5 (other rural)	1 July 2011
MRI	63013-63523	10 years	20 years	*Automatic:* RA2 (outer regional), RA3 (remote), RA4 (very remote) *Department:* RA1 (inner regional) and RRMA4 (small rural) or RRMA5 (other rural)	1 July 2011 1 January 2015 (extend max life)
PET	61523-61646	N/A	N/A	N/A	N/A

Note: The RA category numbers are based on the DIST; they are different on Doctor Connect so the DIST advises proprietors to focus on the category names rather than numbers. From 1 July 2016, Norfolk Island has been be included under the definition of RA4 (very remote) in the DIST.

Appendix I – Multiple Services Rules – Summary paper

The Royal Australian and New Zealand College of Radiologists®

The Faculty of Clinical Radiology

Multiple Services Rules
Summary paper

The multiple services rules, first introduced in November 1996, discount Medicare schedule fees when an imaging service is provided on the same day as other imaging, consultation or procedural services.

They were implemented with the intention to bring diagnostic imaging in line with other areas of the Medicare Benefits Schedule (MBS), where fees are discounted to better reflect the resources used, and efficiencies gained, in providing more than one service during the same episode of patient care.
Unless there are clinical reasons for not doing so, they should be provided to the patient at the one attendance and the efficiencies from doing so reflected in the overall fee charged. Any decision to have a patient return on a different day to complete a multi-area diagnostic imaging service should only be made on the basis of clinical necessity.

The multiple services rules are complex to follow and are poorly articulated in the schedule. The substantially reduced rebates produced by application of the rules are unrealistic with regard to the minor efficiencies gained in providing multiple diagnostic imaging services on the same day. The rules promote inefficient delivery of services and a variety of behaviours designed to work around them (e.g. splitting services over more than one day)—see examples below.

Current Multiple Services Rules

The Health Insurance (HI) Act (Section 4AB) contains regulations in the Diagnostic Imaging Services Table to provide for a reduction in the fee applicable to a diagnostic imaging service, where that service and at least one other medical service, which may be a service other than a diagnostic imaging service, are provided to the same patient.

A range of multiple services rules have been introduced into the DIST regulations:

Rules applicable to all Diagnostic Imaging Services

There are three multiple services rules applicable to all diagnostic imaging, with the exception of services rendered in remote locations. The rules are:

Rule A. When a medical practitioner renders two or more diagnostic imaging services to a patient on the same day, then:

- the diagnostic imaging service with the highest schedule fee has an unchanged Schedule fee; and
- the Schedule fee for each additional diagnostic imaging service is reduced by $5.

Rule B. When a medical practitioner renders at least one R-type diagnostic imaging service and at least one consultation to a patient on the same day, there is a deduction to the Schedule fee for the diagnostic imaging service with the highest Schedule fee as follows:

- if the Schedule fee for the consultation is $40 or more—by $35; or
- if the Schedule fee for the consultation is less than $40 but more than $15—by $15; or
- if the Schedule fee for the consultation is less than $15—by the amount of that fee.

The deduction under Rule B is only made once. If there is more than one consultation, the consultation with the highest Schedule fee determines the deduction amount. There is no further deduction for additional consultations.

A 'consultation' is a service rendered under an item from Category 1 of the Medicare Benefits Schedule (MBS), that is, items 1 to 10816 inclusive.

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Rule C. When a medical practitioner renders an R-type diagnostic imaging service and at least one non-consultation service to the same patient on the same day, the Schedule fee for the diagnostic imaging service with the highest Schedule fee is reduced by $5.

The deduction under Rule C is only made once. There is no further deduction for any additional medical services.

For Rule C, a 'non-consultation' is defined as any following item from the MBS:

- Category 2, items 11000 to 12533;
- Category 3, items 13020 to 51318;
- Category 4, items 51700 to 53460;
- Cleft Lip and Palate services, items 75001 to 75854 (as specified in the "Medicare Benefits for the treatment of cleft lip and cleft palate conditions" book).

Pathology services are not included in Rule C.

When both Rules B and C apply, the sum of the deductions in the Schedule fee for the diagnostic imaging service with the highest Schedule fee is not to exceed that Schedule fee.

Modality Specific Multiple Service Rules

Other Multiple Service Rules are applicable specifically to Vascular Ultrasound, General Ultrasound, O & G Ultrasound, Musculoskeletal MRI and Interventional services.

Rules applicable to all vascular ultrasound services claimed on the same day of service (i.e. whether performed at the same attendance by the same practitioner or at different attendances)

Where more than one vascular ultrasound service is provided to the same patient by the same practitioner on the same date of service, the following formula applies to the Schedule fee for each service:

- 100% for the item with the greatest Schedule fee
- plus 60% for the item with the next greatest Schedule fee
- plus 50% for each other item.

When the Schedule fee for some of the items are the same, the reduction is calculated in the following order:

- 100% for the item with the greatest Schedule fee and the lowest item number
- plus 60% for the item with the greatest Schedule fee and the second lowest item number
- plus 50% for each other item.

That is, if 2 or more Schedule fees are equally the highest, the one with the lowest item number is taken to have the higher fee.

When calculating the benefit, it should be noted, that despite the reduction, the collective items are treated as one service for the application of Rule A of the general diagnostic imaging multiple services rules and the patient gap.

Other rules applicable to vascular ultrasound services

Medicare benefits are only payable for a maximum of two vascular ultrasound studies in a seven-day period. A vascular ultrasound study may include one or more items. Additionally where a patient is referred for a bilateral study of both arms or both legs, the account should indicate "bilateral" or "left" or "right" to enable benefits to be paid.

Rules applicable to other ultrasound services

According to the explanatory notes in the DIST, as a rule benefits are payable once only for ultrasonic examination at the one attendance, irrespective of the areas involved. There does not seem to be any legislative support for this rule.

The notes go on to say that in general, attendance means that there is a clear separation between one service and the next. If there is a short time between one ultrasound and the next, benefits will be payable for one service only. As a guide, the Department of Human Services looks to a separation of three hours between services and this must be stated on accounts issued for more than one service on the one day.

Where more than one ultrasound service is rendered on the one occasion and the service relates to a non-contiguous body area, and they are "clinically relevant", (i.e. the service is generally accepted in the medical profession as being necessary for the appropriate treatment or management of the patient to whom it is rendered), benefits greater than the single rate may be payable. Accounts should be marked "non-contiguous body areas".

Benefits for two contiguous areas may be payable where it is generally accepted that there are different preparation requirements for the patient and a clear difference in set-up time and scanning.
Accounts should be endorsed "contiguous body area with different set-up requirements".

There are several ultrasound items in the schedule subject to specific multiple services restrictions.
For example, the MBS precludes a rebate for ultrasound examination of the pelvis (55065), if performed on the same patient within 24 hours of abdominal ultrasound examination (55036 or 55014) or urinary tract ultrasound (55038 or 55017).

Medicare benefits are not payable for more than three NR-type O & G ultrasound services that are performed on the same patient in any one pregnancy.

Rules applicable to Cone Beam CT (CBCT) services

Claims for more than one CBCT per day are not permitted; claiming for two-dimensional imaging in the same attendance (OPG items 57959 to 57969) and with CT in the same attendance (items 56001 to 57361) are also excluded.

Rules applicable to Magnetic Resonance Imaging (MRI) – Musculoskeletal

If a medical practitioner performs 2 or more scans from MRI subgroup 12 and 13 for the same patient on the same day, the fees specified for items that apply to the service are affected as follows:

(a) the item with the highest schedule fee retains 100% of the schedule fee; and

(b) any other fee, except the highest is reduced by 50%.

If 2 or more Schedule fees are equally the highest, the one with the lowest item number is taken to have the highest fee.

In addition, the modifying item for contrast can only be claimed once for a group of services subject to this rule.

If a medical practitioner provides

(a) 2 or more MRI services from subgroups 12 and 13 for the same patient on the same day; and

(b) 1 or more other diagnostic imaging services for that patient on that day

The amount of the fees payable for the MRI services is taken, for the purposes of this rule, to be an amount payable for 1 diagnostic imaging service in applying Rule A of the general diagnostic imaging multiple services rules.

Interventional Imaging

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There are specific rules relating to the following Ultrasound and CT interventional items:

55054	ULTRASONIC CROSS-SECTIONAL ECHOGRAPHY, in conjunction with a surgical procedure using interventional techniques, not being a service associated with a service to which any other item in this Group applies (R)
57341	COMPUTED TOMOGRAPHY, in conjunction with a surgical procedure using interventional techniques, not being a service associated with a service to which another item in this table applies (R) (K) (Anaes.)
57345	COMPUTED TOMOGRAPHY, in conjunction with a surgical procedure using interventional techniques, not being a service associated with a service to which another item in this table applies (R) (NK) (Anaes.)

Other Items

These individual items all require consideration as each has a multiple service rule included in the indicator.

Item 56233	COMPUTED TOMOGRAPHY - scan of spine, two examinations of the kind referred to in items 56220, 56221 and 56223 without intravenous contrast medium payable once only, whether 1 or more attendances are required to complete the service
Item 56619	COMPUTED TOMOGRAPHY - scan of extremities, 1 or more regions without intravenous contrast medium, payable once only whether 1 or more attendances are required to complete the service
Item 57350	COMPUTED TOMOGRAPHY - spiral angiography with intravenous contrast medium, including any scans performed before intravenous contrast injection - 1 or more spiral data acquisitions, including image editing, and maximum intensity projections or 3 dimensional surface shaded display, with hardcopy recording of multiple projections, where: (a) the service is not a service to which another item in this group applies; and (b) the service is performed for the exclusion of arterial stenosis, occlusion, aneurysm or embolism; and (c) the service has not been performed on the same patient within the previous 12 months; and (d) the service is not a study performed to image the coronary arteries
Item 60503	FLUOROSCOPY, without general anaesthesia (not being a service associated with a radiographic examination)

Issues for consideration

As is evident from the summary of the rules, the multiple services rules are complex, poorly articulated and there are even some questions about their actual legislative support.

Examples of the implications and issues associated with the various multiple services rules as they relate to diagnostic imaging services are set out below:

- Clinical radiologists rarely provide MBS Category 1 consultations or Category 2, 3 or 4 services.
  Hence, Rules B and C are seldom applicable in diagnostic imaging. The $5 discount applied to additional diagnostic imaging services rendered on the same day by implementation of Rule A is a reasonable figure and roughly reflects the efficiencies associated with image acquisition and reporting of multiple region or multiple modality studies.

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- The fee discount for additional vascular ultrasound services rendered on the same day is intended to reflect the time saved in scanning two or more regions in a single patient, compared to a single region in two or more patients. Although the sonographer scanning time and clinical radiologist reporting time for additional region is similar, there are some efficiencies gained in reduced patient processing, changing and set-up times. However, the discounts applied for additional items are high and overestimate the efficiencies gained in providing multiple vascular ultrasound services on the same day.
- Female patients with abdominal or pelvic symptoms are frequently referred for ultrasound examination of the abdomen and pelvis. The examination of both regions is time consuming, particularly as transvaginal sonography of the pelvis is required for most patients. The current MBS fee is inadequate given the additional setup time required for a transvaginal examination. The patient must empty her bladder and a dedicated transvaginal transducer must be prepared with a microbial barrier in order to prevent contamination. For intimate examinations regardless of the gender of practitioner or patient it is best practice for the examination to be chaperoned. The sonographer or clinical radiologist performing the examination, must find a chaperone to assist in caring for the patient during the examination. The transvaginal component of the examination typically adds an additional 20 minutes to the length of the ultrasound study.

  In view of the above, referring medical practitioners are typically "coached" to request a single examination region on each request form. The patient is then scheduled to have the abdominal examination one day, and the transvaginal pelvis examination the next, resulting in inconvenience for the patient.
- In the case of CBCT, data provided to MSAC showed that there was a high level of claiming of CBCT items with other panoramic radiography services and additional CBCT scan/s during a single episode of care. Concern about radiation dose was cited as MSAC when disallowing panoramic radiography (OPG) on the same day as CBCT. In fact, it is likely to have the opposite effect. Most CBCT units allow varying field of view so that it is possible to limit the scan to one dental arch or even a part of one arch. It is common for orthodontists to request OPG for an overview of all dentition, and CBCT targeted to one or more un-erupted impacted teeth (typically upper canines) which requires three-dimensional imaging. This is the appropriate way to image. The rule encourages referrers to ask for a large volume CBCT of the entire maxillofacial region, which is not appropriate for routine orthodontic assessment (but only for selected patients where orthognathic surgery is planned). This will lead to over servicing and increased radiation doses in these (usually paediatric) patients.

- Magnetic Resonance Imaging (MRI) is a diagnostic technique with high capital and operating costs. The cost of an MRI examination is largely determined by the time the patient is in the MRI scanner, radiographer staff costs and clinical radiologist reporting costs.

  Each MRI examination is targeted to an anatomical region and involves precise positioning of the region of interest within a dedicated receiver coil and a period of image acquisition lasting approximately 15 to 30 minutes for each region. The receiver coils are designed to closely match the anatomy of a region (e.g. shoulder, wrist, hip, knee, ankle etc). Scanning an additional region usually involves getting the patient off the scanner and repositioning the additional region of interest in a new receiver coil, or for bilateral studies, moving the coil to the other side of the table prior to re-positioning the patient.

  The period of image acquisition is approximately the same for each musculoskeletal region imaged. Unlike some other imaging modalities, there are no significant efficiency gains in MR imaging of multiple regions on the same day. Scanning two musculoskeletal regions takes almost twice the set up and scanning time as a single region and it takes twice as long for the clinical radiologist to generate a report of two regions compared with a single region as there is twice the number of images to analyse and interpret. There are only very small time saving to be made in safety

screening and administrative tasks. In view of this, the 50% discount applied to the second and subsequent regions is clearly inappropriate and does not reflect the true cost of providing the service.

The current MBS rebates for MRI are already below the cost of delivering a quality service and it not possible for most providers to absorb a 50% discount for the second or subsequent region of a bilateral or multiple region examination.

The multiple services rule for musculoskeletal MRI provides a substantial disincentive to efficient service provision. The impact of the musculoskeletal MRI multiple services rule is that—

- Bilateral or multiple region musculoskeletal MRI services performed on the same day are rarely bulk-billed. In some cases referring medical practitioners are "coached" to avoid requesting more than one MRI region examination on a request form. This is inefficient and inconvenient for patients as it involves twice the travel time and expense and is a particularly severe impost for rural patients where there may be additional accommodation costs incurred. These costs are, in part, transferred to the State Government via Patient Assistance Travel Schemes.
- The second and subsequent regions of a bilateral or multi-region MRI study performed on the same day are charged, where possible, to the patient at same rate as the first scan, resulting in a high out-of-pocket "gap" payment for the second or subsequent region scan.

- Rules regarding interventional ultrasound performed on the same day as a diagnostic ultrasound study cause inefficient scheduling and substantial inconvenience for patients. This is most often observed in the area of breast ultrasound. A patient presenting with a breast lump typically undergoes routine diagnostic mammography and ultrasound examination. The ultrasound examination is frequently performed by a skilled breast sonographer. The mammogram and ultrasound images are reviewed by a breast clinical radiologist and there is often communication with the referring medical practitioner regarding the results and a discussion regarding the need for biopsy.

  If a breast biopsy is to be performed, Medicare will not pay for an ultrasound-guided FNA/biopsy unless there is a 3 hour time separation between the breast ultrasound and the FNA/biopsy.
  This not only causes distress to the patient, it is poor clinical practice and poor patient service.
  The patient may either wait 3 hours prior to undergoing an ultrasound-guided biopsy in order for the examination to be eligible for a Medicare rebate or may agree to pay a large out-of-pocket fee to have the examination conducted quickly and efficiently. An ultrasound-guided biopsy is a time consuming and poorly remunerated procedure. It is not possible for most practices to forego the fee for the preceding diagnostic ultrasound examination.

  This causes scheduling difficulty and inefficient use of resources. It discourages breast ultrasound examinations performed after 1.30pm as there is insufficient time to permit a 3 hours window prior to an ultrasound guided biopsy if the patient does not wish to pay a large out-of-pocket fee for a Medicare ineligible service. Patients are frequently scheduled to return the following day to undergo the biopsy, resulting in added anxiety and inconvenience for patients as it involves twice the travel time, lost productivity and expense. This is a particularly severe impost for rural patients where there may be additional accommodation costs incurred.

  The rule regarding imaging services performed on the same day as a CT interventional procedure also causes inefficient use of resources and considerable patient inconvenience and cost. A typical example of the rule would be a young patient with a recently discovered rapidly growing aggressive cancer (e.g. lymphoma, sarcoma). These patients typically undergo multiple imaging studies including conventional radiography and diagnostic CT of the mass, staging MRI of the mass and staging CT of the chest, abdomen and pelvis to assess for metastatic disease. The patient also

undergoes an expeditious CT-guided biopsy of the mass. The current MBS CT intervention rule precludes a rebate for ANY imaging examination rendered on the same day as an interventional CT.

For most practices, it is not possible to absorb the cost of the conventional radiography, diagnostic and staging CTs and staging MRI examinations. Patients with a newly diagnosed malignancy are usually anxious and keen for all diagnostic imaging studies to be performed as soon as possible, in order that treatment can be planned and instituted in a timely fashion. Patients can pay large out-of-pocket expenses to have an efficient service with all imaging, including a CT-guided biopsy, performed on a same day. If the patient does not wish to pay a large out-of-pocket fee for a Medicare ineligible service, they are scheduled to return the following day to undergo the CT-guided biopsy, resulting in added anxiety, sick leave and financial losses, delayed diagnosis, increased travel time and expense. This is a particularly severe impost for rural patients where there may be additional accommodation costs incurred.

- Other examples of Multiple Services Rules that require revision:
  - Item 56233: CT of multiple spine regions. These are all paid at the same benefit as a single spine region even if scanned on separate occasions.
  - Item 56619: CT scan of extremities: These are all paid at the same benefit as a single region even if scanned on separate occasions.
  - Item 57350 CT angiography: No other CT allowed with this item.
  - Item 60503 Fluoroscopy: no radiograph allowed with this item.

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Recommendation

RANZCR recommends at least the following changes be made to the current rules to address issues of patient inconvenience and additional costs as well as the unrealistic and disproportionate rebate reductions relative to the minor efficiencies that might be gained by providing multiple diagnostic imaging services on the same day:

1. Reduce the discount for multiple vascular ultrasound examinations performed on a single day.
2. Remove the 50% multiple services discount rule for musculoskeletal MRI.
3. Allow rebates to be payable for transvaginal ultrasound performed on the same day as an abdominal ultrasound examination in view of the additional time and setup required.
4. Remove the 3hr separation rule for interventional US.
5. Permit rebates for interventional CT procedures on the same day as other diagnostic imaging services.