Medicare Benefits Schedule Review Taskforce

Final report from the Gastroenterology Clinical Committee

2016

Important note

The recommendations from the Gastroenterology Clinical Committee detailed in the body of this report, including the executive summary, were released for public consultation on 9 September 2016.

The Gastroenterology Clinical Committee considered feedback from the public consultation and made minor changes to a number of recommendations which are detailed in the Addendum to this report.

The final recommendations from the Gastroenterology Clinical Committee and feedback from the public consultation will be provided to the Medicare Benefits Schedule (MBS) Review Taskforce (the Taskforce) for consideration before the Taskforce makes its final recommendations to Government.

Table of Contents

List of Tables

List of Figures

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 improves 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 The Taskforce will also seek to identify any services that may be unnecessary, outdated or potentially unsafe.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 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 Taskforce has asked the Clinical Committees to undertake the following tasks:

1. Consider whether there are MBS items that are obsolete and should be removed from the MBS.
2. Consider identified priority reviews of selected MBS services.
3. Develop a program of work to consider the balance of MBS services within its remit and items assigned to the Committee.
4. Advise the Taskforce on relevant general MBS issues identified by the Committee in the course of its deliberations.

The recommendations from the Clinical Committees are released for stakeholder consultation. The Clinical Committees will consider feedback from stakeholders and then provide recommendations to the Taskforce in a Review Report. The Taskforce will consider the Review Report from Clinical Committees and stakeholder feedback before making recommendations to the Minister for consideration by Government.

The Gastroenterology Clinical Committee (the Committee) was established in 2015 to undertake a review of relevant MBS items. Phase one of this review relied upon the clinical expertise of the members who sought advice from colleagues as necessary, as well as independent, targeted rapid evidence reviews of certain services.

The Taskforce asked the Committee to consider colonoscopy and same day upper and lower gastrointestinal endoscopy as priority reviews.

1.1 Key Recommendations

PRIORITY REVIEW RECOMMENDATIONS

Recommendation 1. *Colonoscopy*

The Committee reviewed the data on these items and the relevant clinical guidelines and recommends that these services should reflect the current evidence for the use of colonoscopy, including appropriate intervals between colonoscopies used in surveillance of patients who are at increased risk of developing colorectal cancer. The Committee also recommends better defining the examination of the colon to ensure that a comprehensive examination is performed. Recommendations include:

1. Reimbursement should be aligned with approved guidelines and the algorithms agreed across the relevant specialties for surveillance colonoscopy.
2. Items should be restructured to better describe clinical indications and surveillance intervals. A new suite of items is recommended.
3. Current colonoscopy items require examination '*beyond the hepatic flexure'*. This should be amended '*to the caecum*' to emphasise the importance of a complete colonoscopy. For patients post right hemicolectomy this examination should be to the anastomosis.
4. The National Bowel Cancer Screening Program items 32088 and 32089 be amended to align with the examination requirements 'to the caecum'.
5. Reference to 'fibreoptic' should be removed as all contemporary colonoscopes are digital.
6. Reference to 'flexible' should be removed as all colonoscopes are flexible.
7. Restrictions should be introduced on the co-claiming of services 32090 and 32093 on the same day, same patient, during a single episode of sedation/anaesthesia.
8. Remove the treatment of radiation proctitis, angiodysplasia or post-polypectomy bleeding from the polyp removal colonoscopy item and create a separate item for this service. It is also recommended that specific reference to Argon Plasma Coagulation be removed to enable any therapy to be used.
9. New colonoscopy items for failed preparation of the colon; for symptomatic patients; for patients with iron deficiency anaemia; and for patients following a positive FOBT test.

Further detail is provided in Section 5.1.

Recommendation 2. *Same Day Upper and Lower GI Endoscopy*

The Committee noted the high level of co-claiming upper gastrointestinal endoscopy with colonoscopy for the same patient, same provider, on the same day. The Committee considered a number of factors that could be adding to this increase including patient preferences, medico legal risks and a lack of guidelines on when bi-directional endoscopy is clinical appropriate.

1. The Committee recommends that this issue be referred to the Gastroenterological Society of Australia (GESA) to consider the need to develop clinical guidelines or standards for the appropriate concurrent use of these procedures.
2. The Committee recommends against co-claiming restrictions on these items at this stage as the major reforms recommended on colonoscopy services may alter existing service patterns for these items.

Further detail is provided in Section 5.2.

SIGNIFICANT AMENDMENTS OF SELECTED ITEMS

Recommendation 3. *Capsule endoscopy*

1. The Committee recommends amending the item descriptor to better describe the service and the patient population. The Committee recommends the descriptor specify the following indications and preconditions:
   a) Gastrointestinal bleeding that is persistent or recurrent with no cause found at endoscopy and colonoscopy: recurrent iron deficiency anaemia not due to coeliac disease where a duodenal biopsy (where not contra indicated) has been performed and menorrhagia if present has been managed OR,
   b) the patient has overt active gastrointestinal bleeding with no cause found at endoscopy and colonoscopy;
   c) the Committee recommends that storage requirements for Capsule Endoscopy (CE) imaging be provided in the explanatory notes to the item.
2. The Committee considers that usage patterns of CE is not explained on clinical grounds alone and the fee of $2,039 may be driving higher than anticipated use.
   a) The Committee recommends a fee assessment by MSAC to see whether the current fee is reflective of the current costs. This assessment may also have flow-on effects to the fee for CE item 11823 which was modelled on the fee for CE item 11820.

Further detail is provided in Section 6.1.

Recommendation 4. *Endoscopic upper gastrointestinal services*

The Committee recommends simplifying and restructuring items 30473, 30476, 30478, 30479. This restructure will not change the fee or the intent of the services and will provide one diagnostic item, one general therapeutic item (without laser) and a stand-alone higher rebated item for laser procedures in specified circumstances.

The Committee recommends:

1. Simplifying and restructuring items 30473, 30476, 30478, 30479 by combining items 30476 and 30478 into one general interventional item and moving Argon Plasma Coagulation (APC) from the laser item 30479 into the more general item 30478. The recommended restructure would

not change the fee or the intent of the services and would maintain requirements that the therapeutic items specify the available techniques and pathologies to be treated.
2. Maintain current co-claiming restrictions on these items (same patient, same day, same provider) and apply similar restrictions to item 30479.
3. Provide the Gastroenterological Society of Australia (GESA) with the repeat service data and ask it to consider developing suitable guidelines on when repeat services are clinically appropriate.
4. Repeat data to be reviewed again following proposed colonoscopy changes.
5. Push Enteroscopy be included in the upper GI endoscopic interventional item 30478 and services provided under item 30487 – *small bowel intubations* will shift making this item obsolete.

Further detail is provided in Section 6.2.

Recommendation 5. ***Endoscopic upper gastrointestinal stricture services***

1. The Committee recommends:
   a) Items 41819 and 41820 be simplified and consolidated with item 30475. This consolidated item will allow any endoscopic technique to be performed for oesophageal through to gastroduodenal procedures for stricture and include imaging intensification if done. An explanatory note will make this intention clear.
   b) The proposed fee for this item is the current fee for 41819 which is higher than 30475 but lower than 41820.
   c) Item 41831 should be amended to indicate treatment for achalasia.

Further detail is provided in Section 6.3.

Recommendation 6. ***Sigmoidoscopy/Colonoscopy***

1. The Committee recommends amending the item descriptors for these services to better define the examination of the colon from 'up to the hepatic flexure' to 'which has not reached the caecum'. This quality measure is designed to ensure that a comprehensive examination is performed and complements other recommended changes to the colonoscopy services. The Committee recommends the following:
   a) Amend descriptor to better define the examination of the colon from '*up to the hepatic flexure*' to '*which has not reached the caecum*'. For patients post right hemicolectomy this examination will not have reached the anastomosis.
   b) The specific reference to Argon Plasma Coagulation to be removed to enable any therapy to be used.
   c) Removal of 'fibreoptic' in the item descriptor as all sigmoid and colon scopes are digital.
   d) Co-claiming restrictions are introduced on the use of these items with colonoscopy items 32090 and 32093, same patient, same day, same provider unless subsequent service has been provided under a second episode of sedation/anaesthesia.

Further detail is provided in Section 6.4.

Recommendation 7. *Endoscopic Ultrasound*

1. The Committee recommends that if during an Endoscopic Ultrasound (EUS) examination an issue is identified which requires an ERCP related therapeutic procedure, it is clinically appropriate that these procedures be performed on the same occasion.
   a) The Committee recommends removing co-claiming restrictions on EUS items to allow items 30484, 30485 and 30494 (described in Table 22) to be payable with EUS.

Further detail is provided in Section 6.5.

ITEMS REQUIRING FURTHER ASSESSMENT

Recommendation 8. *Balloon Enteroscopy*

The Committee reviewed these services to determine if the current clinical indication could be expanded to include some capacity to manage small bowel diseases without anaemia or bleeding, specifically, but not restricted to, Crohn's disease.

1. The Committee recommends an MSAC assessment to expand the conditions for these items to manage small bowel diseases without anaemia or bleeding, specifically, but not restricted to, Crohn's disease.

Further detail is provided in Section 7.1.

NEW SERVICES

Recommendation 9. *Endoscopic Mucosal Resection*

The Committee considered evidence for a new service for the removal of very large polyps by Endoscopic Mucosal Resection (EMR). The Committee considered research evidence on the safety, clinical effectiveness and cost-effectiveness of this procedure and noted the widespread use in public hospitals. The Committee noted the range of EMR complexity, time and expertise required to perform the procedure.

1. The Committee recommends an MSAC assessment of EMR to enable consideration of public funding for this procedure. The Committee recommends that GESA submit an application to MSAC and request an expedited assessment for this service.

Further detail is provided in Section 8.1.

OBSOLETE ITEMS

Recommendation 10. *Obsolete items*

The Committee reviewed the items in its remit and associated MBS service data and identified four MBS items as obsolete i.e. they have no clinical purpose in contemporary practice as they have been

superseded by another service or procedure, or the service identified is better covered under another item.

1. The Committee recommended the following items be removed from the MBS and in December 2015 these were included in public consultation:

Gastric Hypothemia

- Δ **13500** – Gastric hypothermia in the absence of gastrointestinal haemorrhage
- Δ **13503** – Gastric hypothermia for upper gastrointestinal haemorrhage

Examination of the bowel – colonoscopy and sigmoidoscopy

- Δ **32078** – Sigmoidoscopy with diathermy or resection of 1 or more polyps where the time taken is <= 45 minutes
- Δ **32081** – Sigmoidoscopy with diathermy or resection of 1 or more polyps where the time taken is > 45 minutes.

It should be noted that the items relating to flexible sigmoidoscopy, including with polypectomy, remain in the schedule.

Public comments were considered by the Committee and in February 2016 the MBS Review Taskforce reviewed and recommended to Government that these items (32078 and 32081) be removed from the MBS. The Government agreed with this recommendation with an effective date of 1 July 2016.

The Committee has identified a further two items as obsolete and recommend they be removed from the MBS.

Examinations and procedures on bile ducts/Pancreas

- Δ **30493** – Biliary Manometry

Bowel Procedures

- Δ **30487** – Small bowel intubation with biopsy

Item 30493 was included in the public consultation in December 2015. The Committee reviewed the comments received and sought further expert opinion on this procedure. This advice confirmed that biliary manometry is not supported by the published literature and should be removed.

Item 30487 has been identified by the Committee as obsolete and has no clinical purpose in contemporary practice and has been superseded by another procedure, i.e. Push Enteroscopy which the Committee recommends be included in upper GI endoscopic interventional item 30478.

Further detail is provided in under Section 9.

ITEMS NOT REQUIRING AMENDMENT

The Committee advises that 29 items do not require any amendment as these items support clinically valuable services and no specific issues relating to their use have been identified. Items that do not require amendment are listed in Appendix A.

GENERAL ISSUES

The Committee has identified several issues for noting which have broader application across the MBS and should be considered by the Taskforce.

1. The Committee examined data on co-claiming of services – that is where more than one item per patient is claimed by the same provider on the same day. The Committee notes there is significant variation in the co-claiming of services between doctors, and that the level of co-claiming has increased in some areas.
2. The Committee is generally supportive of limiting co-claiming of consultation services on the same day as a planned procedure e.g. colonoscopy.
3. The Committee noted the implications of including high cost consumables in the item fee for services performed in out-of-hospital settings. The Committee noted that the MBS may not be the best vehicle for funding high cost consumables that are integral to the service for reasons including:
    a) device and consumable costs usually reduce over time and there is no ready ability in the MBS to adjust pricing accordingly.
    b) depending on the location of the service the consumable cost may or may not be borne by the health professional who receives the MBS benefit.
    c) any other available funding sources will vary according to whether it is an in-hospital vs out-of-hospital service and whether it is a private hospital or public hospital service.
4. It is the Committee's view that the lack of funding for high cost consumables through the MBS, private health insurance subsidies and public hospital budgets is compromising access to services with proven clinical value. This issue is evident in item 30687, an endoscopic procedure providing radiofrequency ablation for the treatment of Barrett's Oesophagus. The funding of the high cost disposable radiofrequency ablation device is not covered under the MBS item and private health insurers will not cover the costs of the device as it is not listed on the prosthesis list.

All items and descriptions are listed in Appendix A.

1.2 Consumer engagement

The Committee did not have a consumer representative. The Committee recommendations have been summarised for consumers in Appendix B. The summary describes the medical service, the recommendation of the clinical experts and why the recommendation has been made for all major changes and proposed new items.

Importantly however, the Committee believes it is important to find out from consumers if they will be helped or disadvantaged by the recommendations – and how, and why. Following the public consultation the Committee will assess the advice from consumers and decide whether any changes are needed to the recommendations. The Committee will then send the recommendations to the MBS Taskforce. The Taskforce will consider the recommendations as well as the information provided by consumers in order to make sure that all the important concerns are addressed. The Taskforce will then provide the recommendation to government.

2. About the Medicare Benefits Schedule (MBS) Review

2.1 Medicare and the MBS

What is Medicare?

Medicare is Australia's universal health scheme which 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, being free public hospital services for public patients, subsidised drugs covered by the Pharmaceutical Benefits Scheme, and subsidised health professional services listed on the Medicare Benefits Schedule (MBS).

What is the Medicare Benefits Schedule (MBS)?

The Medicare Benefits Schedule (MBS) is a listing of the health professional services subsidised by the Australian government. There are over 5,700 MBS items which provide benefits to patients for a comprehensive range of services including consultations, diagnostic tests and operations.

2.2 What is the MBS Review Taskforce?

The government has established a Medicare Review Taskforce 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.

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 where possible. Although the Medical Services Advisory Committee (MSAC) plays a crucial role in thoroughly evaluating new services, the vast majority of existing MBS items pre-dates this process and has 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.

2.3 Methods: The Taskforce's approach

The Taskforce is reviewing the 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 advise on all aspects which would contribute to a modern, transparent and responsive system. This includes not only making recommendations about new items or services being added 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 seize this unique opportunity to recommend changes to modernise the MBS on 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 the ongoing review of the MBS once the current Review is concluded.

As the Review is to be clinician-led, the Taskforce has decided that the detailed review of MBS items should be done by Clinical Committees. The Committees are broad based in their membership and members have been appointed in their individual capacity, not as representatives of any organisation. This draft report details the work done by the specific Clinical Committee and describes the Committee's recommendations and their rationale.

This report does not represent the final position of the Committee. A consultation process will inform recommendations of the Committee and assist it in finalising its report to the MBS review Taskforce.

Following consultation, the Committee will provide its final advice to the MBS Review Taskforce. The Taskforce will consider the Review Report from Clinical Committees and stakeholder feedback before making recommendations to the Minister for consideration by Government.

2.4 Prioritisation process

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 needed to develop a work plan and assign priorities keeping in mind the objectives of the Review. With a focus on improving the clinical value of MBS services, the Clinical Committees have taken account of factors including the volume of services, service patterns and growth and variation in the per capita use of services, to prioritise their work.

In addition to MBS data, important resources for the Taskforce and the Clinical Committees have included:

- The Choosing Wisely recommendations, both from Australian and internationally
- National Institute for Health and Care Excellence (NICE UK) Do Not Do recommendations and clinical guidance
- Other literature on low value care, including Elshaug et al's[1] Medical Journal of Australia article on potentially low value health services
- The Australian Commission on Safety and Quality in Health Care (ACSQHC) Australian Atlas of Healthcare Variation.

[1] Adam G Elshaug, Amber M Watt, Linda Mundy and Cameron D Willis, Over 150 potentially low-value health care practices: an Australian study, Med J Aust 2012; 197 (10): 556-560

3. About the Gastroenterology Clinical Committee

The Gastroenterology Clinical Committee (the Committee) is part of the first tranche of committees.

The Committee was established in 2015 to make recommendations to the MBS Review Taskforce on the review of MBS items within its remit, based on rapid evidence review and clinical expertise. The Taskforce has asked the Committee to review colonoscopy and same day upper and lower gastrointestinal endoscopy as priority reviews.

3.1 Gastroenterology Clinical Committee members

Table 1: Gastroenterology Clinical Committee Members

Name	Position/Organisation	Declared conflict of interest
Conjoint Professor Anne Duggan (Chair)	Gastroenterologist, John Hunter Hospital Newcastle; Senior Medical Advisor, Australian Commission on Safety and Quality in Health Care	Nil
Dr Katherine Ellard	Specialist, Mater Hospital, North Sydney; Gastroenterologist, private practice	Nil
Mr James Keck	Clinical Director, Colorectal Surgery, Eastern Health Melbourne; Director, Pelvic Floor Physiology, St Vincent's Hospital Melbourne; Vice-President, Colorectal Surgical Society of Australia and New Zealand	Nil
Professor Finlay Macrae	Professor, Department of Medicine, Melbourne University; Head, Colorectal Medicine and Genetics, The Royal Melbourne Hospital; Gastroenterologist, private practice	Nil
Ms Dianne Jones	Assistant Director of Nursing, Endoscopy Services, Logan Bayside Health Network; President, Society of International Gastroenterology Nurses and Endoscopy Associates	Nil
Professor Jon Emery	Professor of General Practice, University of Western Australia; Professor of Primary Care Cancer Research, University of Melbourne; Director, Primary Care Collaborative Cancer Clinical Trials Group	Nil

Name	Position/Organisation	Declared conflict of interest
Dr Peter Radford	General Practitioner, private practice; Chair, Endoscopy Reference Group (Conjoint Committee of the Royal Australian College of General Practitioners & Australian College of Rural and Remote Medicine)	Nil
Dr Lee Gruner (ex-officio)	Immediate past President, Royal Australasian College of Medical Administrators; Member, MBS Review Taskforce	Nil

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.

4. MBS items relating to Gastroenterology

4.1 Areas of responsibility of the Committee

The following 53 MBS items were identified for review by the Committee.

Therapeutic and diagnostic procedures: Gastroenterology

- **Diagnosis of Gastro-oesophageal reflux disease (3 items)**
  - 11800, 11801, 11810
- **Capsule endoscopy (2 items)**
  - 11820, 11823
- **Diagnosis of abnormalities of the pelvic floor (1 item)**
  - 11830
- **Gastric Hypothermia (2 items)**
  - 13500 and 13503
- **Oesophagoscopy and endoscopic procedures on the Oesophagus (6 items)**
  - 30473, 30476, 30478, 30479, 30490, 30687
- **Dilatation of upper GI tract (6 items)**
  - 30475, 41819, 41820, 41828, 41831, 41832
- **Gastrostomy (3 items)**
  - 30481, 30482, 30483
- **Examinations and procedures on bile ducts/Pancreas (7 items)**
  - 30484, 30485, 30491, 30492, 30493, 30494, 30495
- **Other procedures on the bowel (2 item)**
  - 30487, 30488
- **Examination of the small bowel by balloon enteroscopy (4 items)**
  - 30680, 30682, 30684, 30686
- **Endoscopic ultrasound with biopsy for staging of GI cancers (4 items)**
  - 30688, 30690, 30692, 30694
- **Insertion of nasogastric tube (2 items)**
  - 31456, 31458
- **Examination of the bowel – colonoscopy and sigmoidoscopy (11 items)**
  - 32023, 32072 – 32095

4.2 Items referred to the Gastroenterology Clinical Committee

The following items, located in the ENT section of the MBS, were referred to the Committee for review as gastroenterologists are the main providers of these items:

Dilatation of upper GI tract

- Δ **41819** – Dilatation of stricture of upper gastro-intestinal tract using bougie or balloon over endoscopically inserted guidewire, including endoscopy with flexible or rigid endoscope
- Δ **41820** – Dilatation of stricture of upper gastro-intestinal tract using bougie or balloon over endoscopically inserted guidewire, including endoscopy with flexible or rigid endoscope, where the use of imaging intensification is clinically indicated
- Δ **41828** – Oesophageal stricture, dilatation of, without oesophagoscopy
- Δ **41831** – Oesophagus, endoscopic pneumatic dilatation
- Δ **41832** – Oesophagus, balloon dilatation of, using interventional imaging techniques.

4.3 Items referred to other Clinical Committees for review

The following items were referred to the Diagnostic Imaging Clinical Committee as imaging specialists are the main providers of these services.

Examinations and procedures on bile ducts

- Δ **30495** – Percutaneous biliary dilatation for biliary stricture

Bowel Procedures

- Δ **30488** – Small bowel intubation (Anaes)

5. Priority Reviews

5.1 Colonoscopy services (items 32090 and 32093)

Issue

The Committee reviewed MBS colonoscopy services items 32090 and 32093 and noted that the demand for MBS funded colonoscopy has increased by 28 per cent between 2009-10 and 2014-15. This growth rate exceeds population growth (8 per cent)[2] and total public and private hospital separations (18 per cent)[3] over the same period.

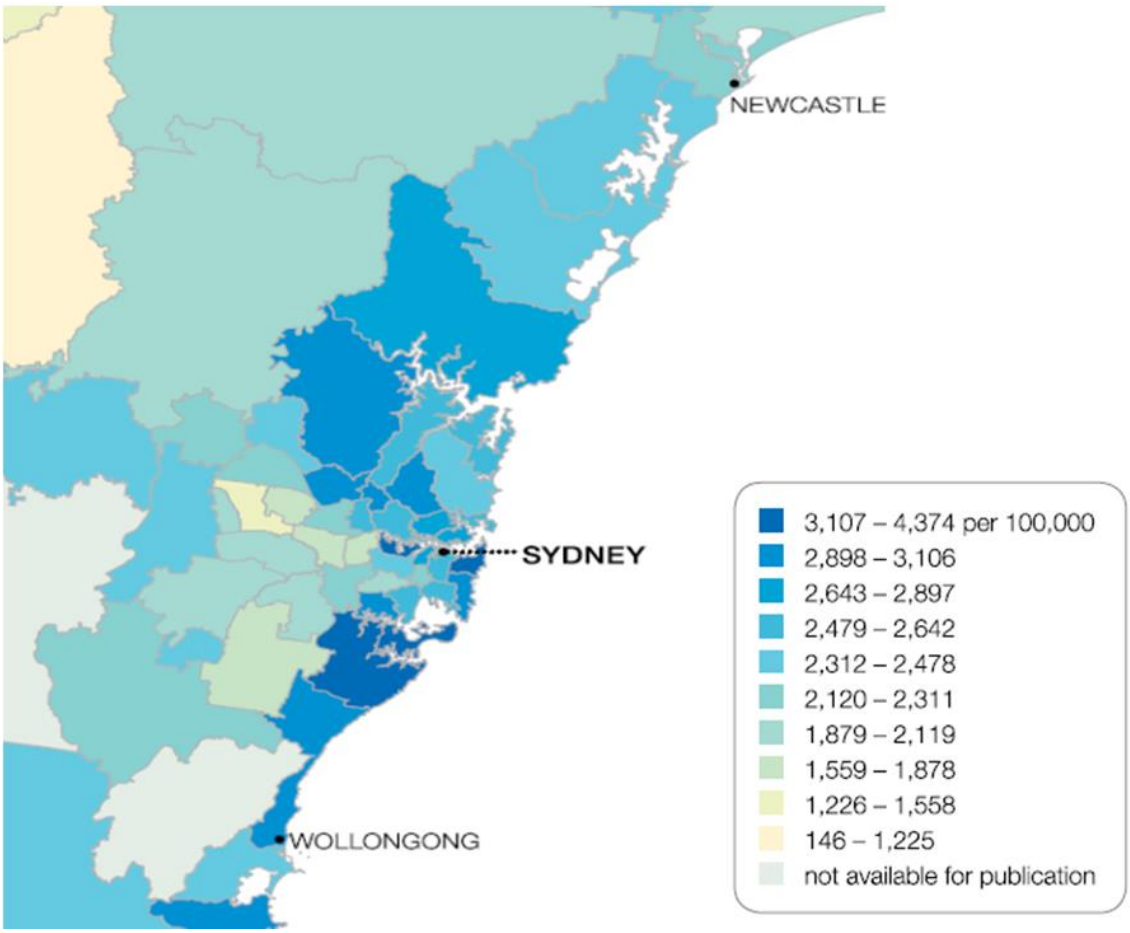
The Committee also noted the very different patterns of servicing across the country and between practitioners, and while there are significant waiting lists, and probably inadequate access to services in some areas, there appears to be relatively high rates of colonoscopy services in certain parts of the country. The Australian Commission on Safety and Quality in Health Care (ACSQHC) found in 2013-14 the national rate of colonoscopy services funded through the MBS were 2,355 per 100,000 people. The number of services across more than 320 local areas ranged from 146 to 4,374 per 100,000 people, the highest rate being 30 times the lowest rate. Service numbers across States also varied, from 902 per 100,000 people in the Northern Territory, to 2,688 in Queensland[4].

For most services, variation in per capita use correlates with patient socioeconomic status (SES). This is true for colonoscopy with the highest rates being in eastern Sydney and the lowest in the Northern Territory. However, the data shows that there is considerable variation in per capita use between areas of similar SES. For instance as the following map (Figure 1) shows, people who reside in northern Sydney have much lower use than those who live in eastern Sydney – a difference which is not readily explained by patient demographic factors.

2 http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3101.0Dec%202015?OpenDocument

3 http://www.aihw.gov.au/publication-detail/?id=60129550483

4 Australian Commission on Safety and Quality in Healthcare, Australian Atlas of Healthcare Variation 2015



Source: Australian Commission on Safety and Quality in Health Care, Australian Atlas of Healthcare Variation 2015.

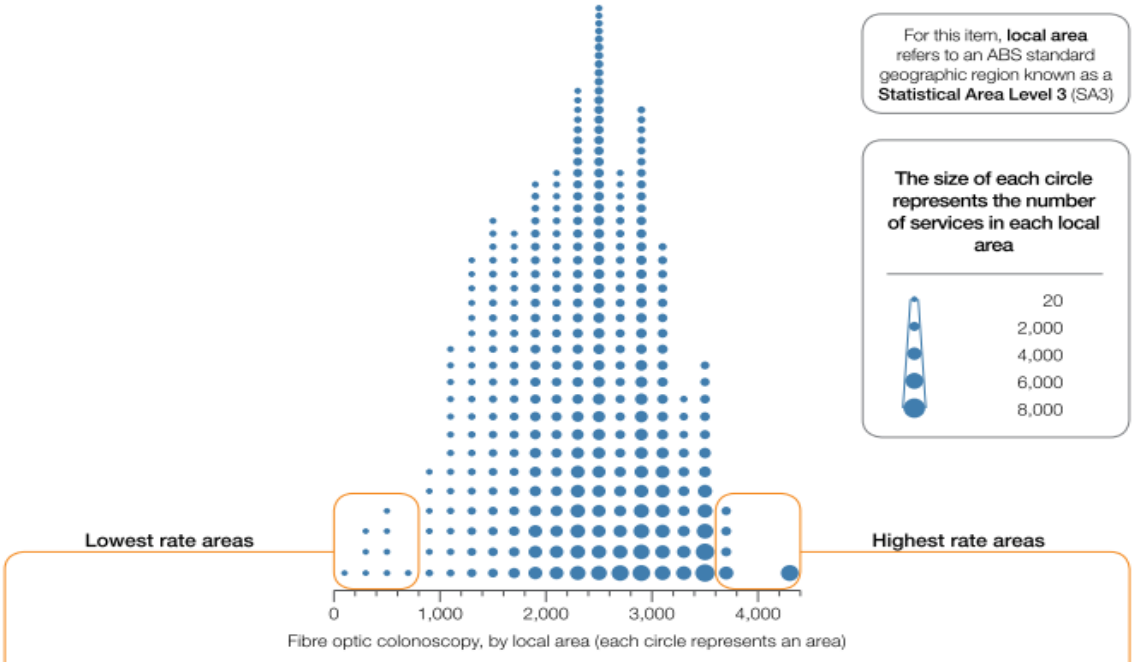
Figure 1: Number of MBS-funded colonoscopy services per 100,000 people, age standardised, by local area, 2013-14

Table 2: Number of MBS-funded services for colonoscopy per 100,000 people aged standardised, by local area, state and territory, 2013-14

Services	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
Highest rate	4,374	3,624	3,746	3,266	3,405	2,887	2,073	2,919
State/territory	2,279	2,469	2,688	2,219	1,981	2,107	902	2,178
Lowest rate	971	976	972	661	213	989	146	1,785
No. services	185,985	153,168	132,657	43,432	51,366	13,042	1,845	8,232

Source: Australian Commission on Safety and Quality in Health Care, Australian Atlas of Healthcare Variation 2015.

Table 2 shows that in 2013–14, there were 589,748 MBS-funded services for colonoscopy, representing 2,355 services per 100,000 people (the Australian rate). The average number of services varied significantly across states and territories, from 902 per 100,000 people in the Northern Territory, to 2,688 in Queensland.



Local area	State	Rate	Services
Daly - Tiwi - West Arnhem	NT	146	24
Kimberley	WA	213	68
Alice Springs	NT	289	102
East Arnhem	NT	330	40
Pilbara	WA	414	224
Katherine	NT	420	72
Goldfields	WA	510	193
Gascoyne	WA	542	57
Outback - North and East	SA	661	206

Local area	State	Rate	Services
Eastern Suburbs - North	NSW	4,374	5,969
Kenmore - Brookfield - Moggill	Qld	3,746	1,936
Brisbane Inner - West	Qld	3,685	1,845
Stonnington - East	Vic	3,624	1,594
Bayside	Vic	3,607	4,239

Notes:
Rates are standardised based on the age structure of the Australian population in 2001.
State/territory and national rates are based on the total number of services and people in the geographic area.
The term local area refers to an ABS standard geographic region known as a Statistical Area Level 3 (SA3).

MBS statistics exclude services provided free of charge to public patients in hospitals, to Department of Veterans' Affairs beneficiaries, some patients under compensation arrangements and through other publicly funded programs.
SA3 analysis excludes approximately 430 services from GPO postcodes 2001, 2124, 3001, 4001, 5001, 6843 but these data are included in state/territory and national level analysis.

For more technical information please refer to the Technical Supplement.

Sources: National Health Performance Authority analysis of Department of Human services Medicare Benefits statistics 2013–14 (data supplied 12/08/2014) and Australian Bureau of Statistics Estimated Resident Population 30 June 2013.

Figure 2: Number of MBS-funded services for colonoscopy per 100,000 people, age standardised, by local area, 2013-14

MBS item 32090 services have grown 51 per cent when compared to 2004–05. Additionally, MBS item 32093 services have grown 177 per cent when compared to 2004–05 service levels. This equates to a compound annual growth rate of 4.2 per cent for item 32090 and 10.7 per cent for item 32093 over the 10 years.

Table 3: The 1-year, 5-year and 10-year growth in services.

Growth period	Colonoscopy item 32090	Colonoscopy item 32093
1 Year Growth, 2013-12 to 2014-15	0.1%	10%
5 Year Growth, 2009-10 to 2014-15	12%	58%
10 Year Growth, 2004-05 to 2014-15	51%	177%

Source: Calculated from publicly available MBS Data (Department of Human Services website)

Table 4: Current MBS colonoscopy items 32090 and 32093

Item	Item Descriptor	Schedule Fee	Services 2014-15	Service change 2011–12 to 2014–15 (%)
32090	FIBREOPTIC COLONOSCOPY examination of the colon beyond the hepatic flexure WITH OR WITHOUT BIOPSY (Anaes.)	$334.35	335,488	3%
32093	Endoscopic examination of the colon beyond the hepatic flexure by FIBREOPTIC COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS, or the treatment of radiation proctitis, angiodysplasia or post-polypectomy bleeding by ARGON PLASMA COAGULATION, 1 or more of (Anaes.)	$469.20	255,606	29%

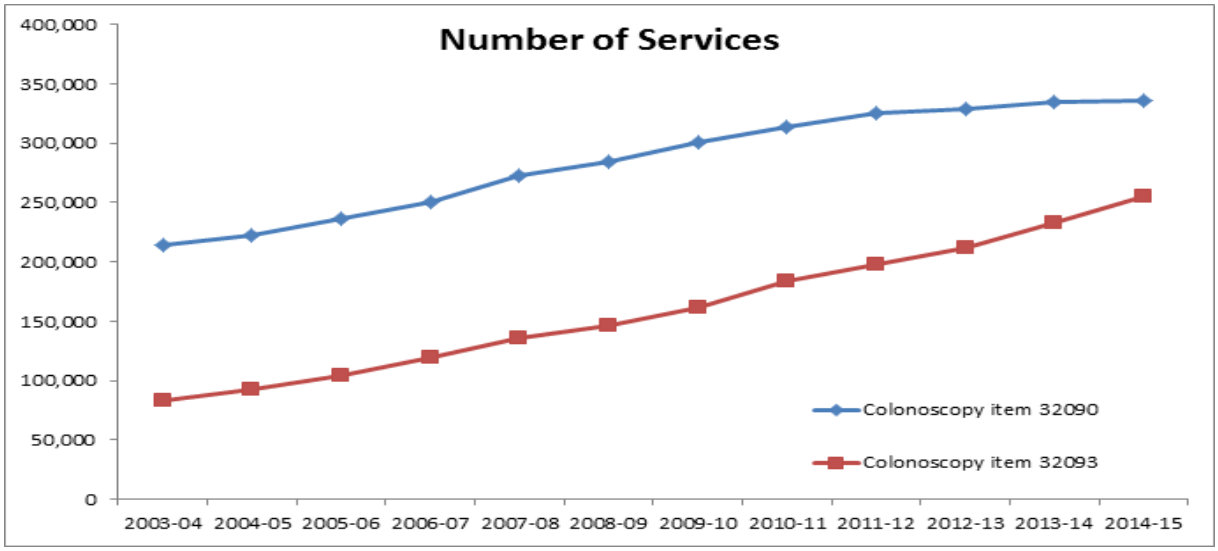
Source: Publicly available MBS Data (Department of Human Services website)

Table 5: The number of services and benefits paid over time, by financial year

Financial years	Colonoscopy item 32090	Benefits Paid $	Colonoscopy item 32093	Benefits Paid $
2003-04	214,145	44,467,250	83,763	24,451,802
2004-05	222,428	47,284,925	92,288	27,584,479
2005-06	236,358	51,311,612	103,930	31,738,078
2006-07	250,968	55,598,206	119,797	37,344,055
2007-08	272,721	61,718,765	135,991	43,303,900
2008-09	284,755	65,958,710	146,870	47,846,030
2009-10	300,365	71,203,293	162,010	54,022,879
2010-11	313,787	75,892,935	183,744	62,535,941
2011-12	325,491	80,349,282	198,011	68,874,749
2012-13	328,667	82,842,838	211,928	75,266,904
2013-14	335,063	85,098,917	233,145	83,426,047
2014-15	335,488	85,072,891	255,606	91,346,459

Source: Publicly available MBS Data (Department of Human Services website) date of processing

Figure 3 shows the use of colonoscopy items 32090 and 32093 has increased gradually over time, with the rate of growth greater for 32093 (with polyp removal) than for item 32090.



Source: Publicly available MBS Data (Department of Human Services website)

Figure 3: The number of services over time, by financial year

Rationale

Following a review of the MBS data and an analysis of the evidence from the ACSQHC Atlas of Healthcare Variation, the Committee found that there is marked variation in per capita use of colonoscopy that cannot be explained by clinical or patient demographic factors. The Committee found that rates of colonoscopy were markedly higher in and around capital cities and were lower in remote areas. The Committee noted that lower rates in rural and remote areas may also be the result of workforce shortages.

The Committee is concerned that asymptomatic low risk patients are undergoing low value colonoscopy services for bowel cancer screening and/or too frequent screening for a range of gastrointestinal disorders. The Committee notes that low value testing may be compromising access to services for patients who require clinically necessary colonoscopy services. The Committee notes too that there are contemporary Australian clinical practice guidelines that have been endorsed by the relevant specialist Colleges and Societies that provide clear advice about the appropriate use of colonoscopy in colorectal cancer screening and gastrointestinal disorders.

Recommendation 1: Colonoscopy services

The Committee recommends that a new suite of items be introduced that align the services with Australian clinical practice guidelines and endorsed algorithms; and better describe the indications for initial colonoscopy (both for symptomatic and asymptomatic patients); and prescribe testing intervals for diagnostic services related to pathology found at previous colonoscopy. The Committee recommends that timing of colonoscopy following polypectomy should conform to the recommended surveillance intervals set out in the endorsed algorithms, taking into account

individualised risk assessment. In the absence of reliable clinical history, clinicians should use their best clinical judgement to determine the interval between testing and the item that best suits the condition of the patient.

The Committee recommends the introduction of new colonoscopy items for a failed preparation of the colon; for symptomatic patients; for patients with iron deficiency anaemia; and for patient following a positive FOBT test.

The Committee also recommends removing the treatment of radiation proctitis, angiodysplasia or post-polypectomy bleeding from the polyp removal colonoscopy items and create a separate item for this service. It is further recommended that Argon Plasma Coagulation (APC) be removed to allow other therapy to be used.

The Committee recommends better defining the examination of the colon in the item descriptor to ensure that a comprehensive examination is performed; and placing restrictions on the co-claiming of colonoscopy items (same patient, same provider, same day) unless the subsequent service has been provided under a second episode of sedation/anaesthesia.

The Committee acknowledges that recommendations made in this report will not in themselves increase availability of colonoscopy services in areas that are underserviced due to workforce shortage. The Committee's aim is to provide recommendations that align MBS funding for colonoscopy with evidence and accepted best practice.

The recommendations include:

1. Reimbursement should be aligned with approved guidelines and the endorsed algorithms agreed across the relevant specialties for surveillance colonoscopy
    - NHMRC Clinical Practice Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer
    - NHMRC Clinical Practice Guidelines for Surveillance Colonoscopy – in adenoma follow-up; following curative resection of colorectal cancer; and for cancer surveillance in inflammatory bowel disease
    - NHMRC Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer: A Guide for General Practitioners
    - Algorithm Colonoscopic Surveillance Intervals – Adenomas. 2013,
    - Algorithm Colonoscopic Surveillance Intervals – Following Surgery for Colorectal Cancer. 2013
    - Algorithm Colorectal Cancer Screening – Family History. 2013, and
    - Algorithm Colonoscopic Surveillance Intervals – Inflammatory Bowel Disease. 2013

For more information see the colorectal cancer pages on the Cancer Council Australia website.

Items should be restructured and increased to better describe clinical indications and surveillance intervals

2. Current colonoscopy items require examination 'beyond the hepatic flexure'. This should be amended 'to the caecum' to emphasise the importance of a complete colonoscopy, noting that this requirement is not possible for small number of patients without a caecum. For patients post right hemicolectomy this examination should be to the anastomosis.
3. The National Bowel Cancer Screening Program items 32088 and 32089 should be amended to align with the examination requirements 'to the caecum'.
4. Reference to 'fibreoptic' should be removed as all colonoscopes are digital.
5. Reference to 'flexible' should be removed as all contemporary colonoscopes are flexible.
6. Restrictions on co-claiming colonoscopy services should be introduced for same day, same patient, same provider, during a single episode of sedation/anaesthesia.
7. Remove the treatment of radiation proctitis, angiodysplasia or post-polypectomy bleeding from the polyp removal colonoscopy items and create a separate item for this service. It is also recommended that specific reference to APC be removed to enable any therapy to be used.
8. New colonoscopy items for failed preparation of the colon; for symptomatic patients; for patients with iron deficiency anaemia; and for patients following a positive FOBT test.

Specific item recommendations

The Committee recommends the following new MBS items for colonoscopy services.

Table 6: Proposed diagnostic colonoscopy services to replace item 32090, schedule fee all items $334.35

Item	Item Descriptor
A1	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY with or without biopsy Δ For patient following a positive faecal occult blood test, not in association with items 32088, 32089 for National Bowel Cancer Screening Program participants Δ Payable not more than once every 2 years
A2	Endoscopic examination of the colon to the caecum by COLONOSCOPY with or without biopsy i For symptomatic patient or ii patient with iron deficiency anaemia
A3	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY with or without biopsy Δ For failed preparation of the colon
A4	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY with or without biopsy Δ For patient following surgery for colorectal cancer
A5	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY with or without biopsy Δ For patient with MODERATE risk of colorectal cancer due to family history of colorectal cancer (1 first degree relative < 55yrs at diagnosis OR 2 first degree relatives OR 1 first degree relative and 1 second degree relative on the same side of the family, any age at diagnosis) Δ Payable not more than once every 5 years
A6	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY with or without biopsy Δ For patient with HIGH risk of colorectal cancer due to known or suspected familial condition including FAP or Lynch Syndrome Δ Payable not more than once every 12 months
A7	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY with or without biopsy

Item	Item Descriptor
	i For patient with previous history of 1-2 adenomas AND all <10mm, no villous features, no high grade dysplasia; OR ii For patient with inflammatory bowel disease, Group 3 (ulcerative colitis without high risk features when two previous colonoscopies are macroscopically inactive and histologically negative for dysplasia) Δ Payable not more than once every 5 years
A8	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY with or without biopsy i For patient with previous history of 3-4 adenomas, sessile serrated OR any adenoma >10mm, villous features, high grade dysplasia; OR ii For patient with inflammatory bowel disease, Group 2 (quiescent ulcerative colitis without high risk features) Δ Payable not more than once every 3 years
A9	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY with or without biopsy i For patient with previous history of 5-9 adenomas; OR ii For patient with inflammatory bowel disease, Group 1 (any high risk feature including: • Chronically active ulcerative colitis • Primary sclerosing cholangitis • Colorectal cancer in first degree relative at <50y age • Stricture, multiple inflammatory polyps or shortened colon • Previous dysplasia) Δ Payable not more than once every 12 months
A10	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY with or without biopsy Δ For patient with previous history of >10 adenomas or incomplete excision of large or sessile adenoma Δ Payable not more than 4 times per year

Table 7: Proposed therapeutic colonoscopy services to replace item 32093, Schedule fee all items $469.20

Item	Item Descriptor
B1	Endoscopic examination of the colon by COLONOSCOPY for the treatment of radiation proctitis, angiodysplasia or post-polypectomy bleeding, 1 or more of,
B2	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS, Δ For patient following a positive faecal occult blood test, not in association with items 32088, 32089 for National Bowel Cancer Screening Program participants Δ Payable no more than once every 2 years
B3	Endoscopic examination of the colon to the caecum by COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS, i For symptomatic patient or ii patient with iron deficiency anaemia
B4	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS, Δ For patient following surgery for colorectal cancer
B5	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS, Δ For patient with MODERATE risk of colorectal cancer due to family history of colorectal cancer (1 first degree relative <55yrs at diagnosis OR 2 first degree relatives OR 1 first degree relative and 1 second degree relative on the same side of the family, any age at diagnosis)

Item	Item Descriptor
B6	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS, Δ For patient with a HIGH risk of colorectal cancer due to known or suspected familial condition including FAP or Lynch Syndrome
B7	Endoscopic examination of the colon to the caecum by COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS or LESIONS, i For patient with previous history of 1-2 adenomas AND all <10mm, no villous features, no high grade dysplasia; OR ii For patient with inflammatory bowel disease, Group 3 (ulcerative colitis without high risk features when two previous colonoscopies are macroscopically inactive and histologically negative for dysplasia)
B8	Endoscopic examination of the colon to the caecum by COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS or LESIONS i For patient with previous history of 3-4 adenomas or any adenoma >10mm, villous features, high grade dysplasia; sessile serrated OR ii For patient with inflammatory bowel disease, Group 2 (quiescent ulcerative colitis without high risk features)
B9	Endoscopic examination of the colon to the caecum by COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS or LESIONS i For patient with previous history of 5-9 adenomas, OR ii For patient with inflammatory bowel disease, Group 1 (any high risk feature including: • Chronically active ulcerative colitis • Primary sclerosing cholangitis • Colorectal cancer in first degree relative at <50y age • Stricture, multiple inflammatory polyps or shortened colon • Previous dysplasia)
B10	Δ Endoscopic examination of the colon to the caecum by COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS, Δ For patient with previous history of >10 adenomas, or incomplete excision of large or sessile adenoma

Proposed Explanatory Note – Colonoscopy items

MBS items for colonoscopy have been revised to align MBS reimbursement with existing National Health and Medical Research Council (NHMRC) clinical practice guidelines for the prevention, early detection and management of colorectal cancer and for surveillance colonoscopy:

Δ NHMRC Clinical Practice Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer, 2005

Δ NHMRC Clinical Practice Guidelines for Surveillance Colonoscopy – in adenoma follow-up; following curative resection of colorectal cancer; and for cancer surveillance in inflammatory bowel disease, 2012

Δ NHMRC Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer: A Guide for General Practitioners, 2000.

These national guidelines do not support the use of colonoscopy for patients at average or slightly above average risk of colorectal cancer who do not have symptoms or a positive FOBT.

The Cancer Council of Australia, the Gastroenterological Society of Australia and the Colorectal Surgical Society of Australia and New Zealand have endorsed the following algorithms designed to be used in conjunction with the NHMRC approved guidelines:

- Colonoscopic Surveillance Intervals – Adenomas. 2013,
- Colonoscopic Surveillance Intervals – Following Surgery for Colorectal Cancer. 2013
- Colorectal Cancer Screening – Family History. 2013, and
- Colonoscopic Surveillance Intervals – Inflammatory Bowel Disease. 2013

For more information see the colorectal cancer pages on the Cancer Council Australia website

Timing of colonoscopy following polypectomy should conform to the recommended surveillance intervals set out in the endorsed algorithms, taking into account individualised risk assessment. In the absence of reliable clinical history, clinicians should use their best clinical judgement to determine the interval between testing and the item that best suits the condition of the patient.

Definition of previous history

For items A7 to A10 and B7 to B10 the most appropriate item to be billed is determined by the previous history of the patient. The previous history for the purpose of these items is defined by number, size and type of adenomas removed during the most recent prior colonoscopy.

Diagnostic colonoscopy Items A1 to A10

Diagnostic colonoscopy items A1, A5 to A10 have mandated intervals for repeat surveillance testing as clinically recommended in the approved guidelines and algorithms. These services are payable under Medicare only when provided in accordance with the approved intervals.

For item A7 to A10 the patient's previous history is used to determine the appropriate item to bill. In the absence of reliable patient history or evidence the practitioner should be guided by their best clinical judgement (see examples below).

Therapeutic colonoscopy Items B1 to B10

Therapeutic colonoscopy items B5 to B10 do not have mandated intervals for repeat surveillance testing. However, services should conform to the recommended surveillance intervals set out in the endorsed algorithms, taking into account individualised risk assessment. Service patterns by individual practitioners may be subject to audit and peer review assessment.

How to use the items with new patients who have undergone previous colonoscopy

Patients whose care continues within one practice should have a certain history available to guide decision making regarding surveillance intervals. For new patients, practitioners should make

reasonable efforts to establish a patient's previous colonoscopy history. Once these items are established, the patients' MBS claims history for those patients who do not require polypectomy will assist with this. The following case examples are provided to guide practitioners in the appropriate use of these new items.

Example 1 – New patient

A new patient is referred with advice that they had 2 polyps removed at their last colonoscopy but the pathology results and size is unknown. The practitioner may decide that A7 is the most appropriate item to bill. This means that 1) no polyps were removed at this colonoscopy and 2) the patient can be recalled for a repeat colonoscopy in 5 years. Alternatively the lack of certain history, particularly around the type of polyp removed, may lead the clinician to believe that a shorter interval is appropriate and hence an item that corresponds with a higher risk category could be chosen, for instance item A8. This establishes the patient's Medicare claims history and is available for other practitioners if the patient moves. If in the future the patient has polyps removed which are adenomas then this will establish a new and possibly different previous history which may place the patient in a different risk category and item range.

Example 2 – New patient

For the same scenario as above, but where polyps are removed during the current colonoscopy, the practitioner would choose the B item that mirrors A7 (ie B7), as the assessment of patient history is the same. However advice to the patient about the appropriate interval for further colonoscopy will depend on the number, size and type of adenomas removed at this colonoscopy. This judgement will usually rely on the outcome of pathology testing and hence will not be available at the time of colonoscopy.

For audit purposes it is important to record the most appropriate item. In accordance with good practice, clinicians are required to maintain records that include pathology results which can be made available to the patient or other practitioners as required.

Hierarchy of items

Patients may fit several categories and the most appropriate fit is a matter for clinician judgement with the highest risk indicating what subsequent colonoscopy intervals are appropriate. The examples provided below show that the result of the histopathology will not lengthen the surveillance intervals (in the case of patient with FAP or Lynch) and may actually shorten the surveillance intervals (in the case of patient with FDR or SDR with CRC).

Example 1

A patient at high risk of CRC with FAP or Lynch Syndrome has a number of polyps removed at a surveillance colonoscopy. Item B6 is the appropriate item to bill. If the histology result returns 1-2 adenomas for patients at low to moderate risk then the next surveillance colonoscopy is

recommended in 5 years. However, the patient's familial condition means that a shorter interval (12 months) is recommended and payable.

Example 2

A patient at moderate risk with a first or second degree family history of CRC has a number of polyps removed at a surveillance colonoscopy. Item B5 is the appropriate item to bill based on the patient's family history. If the histology result returns 3-4 adenomas then the next surveillance colonoscopy is recommended in 3 years instead of 5 years.

General guidance

"To the caecum" requirements for colonoscopy examinations do not apply to patients who have no caecum following right hemi colectomy. For these patients the examination should be to the anastomosis.

Surveillance colonoscopy should be planned based on high-quality endoscopy in a well-prepared colon using most recent and previous procedure information when histology is known. Many patients > 80 years have little to gain from surveillance of adenomas given a 10-20 year lead-time for the progression of adenoma to cancer. The finding of serrated lesions may alter management. Small, pale, distal hyperplastic polyps only do not require follow-up.

General practitioners should ensure colonoscopy referral practices align with applicable NHMRC guidelines and the Royal Australian College of General Practitioners' guidelines for preventive activities in general practice (the red book). In addition, general practitioners are urged to recommend biennial faecal occult blood test (FOBT) screening to age-appropriate patients. The National Bowel Cancer Screening Program (the Program) will be fully rolled out in Australia by 2020 by which time all 50-74 year old Australian residents will be invited to participate in biennial FOBT screening through the Program.

Failed preparation of the colon (item A3)

Item A3 is to be billed where a colonoscopy is unsatisfactory due to a failed preparation of the colon. Under these circumstances a second complete colonoscopy is payable. For example, a patient may be referred for a colonoscopy due to a positive FOBT test. The first colonoscopy examination has failed due to a poorly prepared colon. Item A3 is payable. The second colonoscopy examination is performed satisfactorily. Item A1 is payable.

It should be noted these services cannot be billed together for the same patient, same provider, on the same day during a single episode of sedation/anaesthesia.

Co-claiming restrictions

Colonoscopy services in the item range A1 to A10 and B2 to B10 cannot be billed together for the same patient, same provider, on the same day during a single episode of sedation/anaesthesia. Colonoscopy services in this item range cannot be billed with Sigmoidoscopy services in the item

range 32081 – 32084 for the same patient, same provider, on the same day during a single episode of sedation/anaesthesia.

Patient eligibility for colonoscopy services

The new structure of the colonoscopy items reflect the current evidence for the use of colonoscopy, including appropriate intervals between colonoscopies used in surveillance of patients who are at increased risk of developing colorectal cancer.

Patients seeking Medicare rebates for colonoscopy services A1, A5 to A10 and B2 will need to ensure that they are eligible for the service prior to proceeding with the procedure. MBS patient benefits for these services are aligned with approved guidelines and algorithms on the appropriate screening and interval surveillance for colonoscopy.

For further information visit the Cancer Council Australia website.

The Department of Human Services will be able to confirm whether a colonoscopy service has been claimed by an individual patient and the date of service. It will also be able to confirm any restriction on the frequency of the item claimed which would prevent a rebate from being paid if the service was provided again within the restricted period. Patients can seek clarification from the Department of Human Services by calling 132 011.

Patients can also access their own claiming history with a My Health Record or by establishing a Medicare online account through myGov or the Express Plus Medicare mobile app.

Further information about these services can be found on the Department of Human Services website.

Practitioners providing colonoscopy services can call Medicare on 132 150 to check the patient's claiming history. The patient's Medicare card number will be required together with the range of item numbers to be checked. For example, the new item numbers for colonoscopy services are in the range A1 to A10 and B2 to B10. The operator will interrogate the patient's claiming history and provide advice on any claims paid for a colonoscopy service within the range of items specified and the date of the service.

Alternatively, the Health Professionals Online System (HPOS) is a fast and secure way for health professionals and administrators to check if a patient is eligible for a Medicare benefit for a specific item on the date of the proposed service. However, this system will only return advice that the service is payable or not payable. It will not return full advice on when the last service was provided or when the patient will become eligible for the service again. For example, if the service has a 3 year restriction and the last service was in June 2014, the advice will be that the item is not payable for a service date in 2016. It will not advise that the last service was provided in June 2014.

Further information about this service can be found on the Department of Human Services website.

All patients who require a colonoscopy will be eligible for a service. However, MBS rebates will not be payable for services which do not meet the clinical indications and the item requirements for a colonoscopy or a repeat colonoscopy where the interval is specified in the item. Practitioners should ensure that their practice conforms to the approved clinical guidelines.

Recommendation Impact Statement

The recommendation to introduce a new suite of items will align these services with Australian clinical practice guidelines to ensure patients receive appropriate and best practice clinical care. Changes to better define the examination of the colon will also ensure a comprehensive colonoscopy is performed. Providers will also have clearer guidance on the service that best suits the patient's condition and when these items can be claimed.

5.2 Same Day Upper and Lower GI Endoscopy

Issue

The Committee reviewed the MBS service data for upper gastrointestinal endoscopic diagnostic service (item 30473) and lower gastrointestinal endoscopic services (items 32090 and 32093) being performed together for the same patient, same provider, on the same day. The Committee noted the service growth in this area as indicated in Table 8. In 2014-15 the percentage of colonoscopy item 32090 claimed with upper gastrointestinal endoscopy item 30473 was more than half at 60.5% of total services.

Table 8: Co-claiming colonoscopy items 32090 or 32093 with oesophagoscopy item 30473

Item	2010-11	2011-12	2012-13	2013-14	2014-15
Colonoscopy item 32090 co-claimed with oesophagoscopy item 30473 - as a percentage	48.8%	53.1%	55.5%	58.7%	60.5%
Colonoscopy item (polyp removal) item 32093 co-claimed with oesophagoscopy item 30473 - as a percentage	39.1%	42.2%	44.7%	46.5%	47.1%

Source: Department of Health (unpublished data, date of service)

Rationale

Based on expert clinical opinion and analysis of the MBS data, the Committee noted that the frequency of same day co-claiming of these services is higher than anticipated. The Committee noted that investigation of iron deficiency patients or patients with upper and lower gastrointestinal symptoms is an appropriate and common reason to undergo both procedures under the one sedation/anaesthesia, however this may not in itself account for the observed rate of co-claiming.

The Committee considered that factors such as patient preferences, perceived medico legal risks and the lack of appropriate clinical guidelines may be contributing to the increasing rates of co-claiming for these items. The Committee noted that there are no clinical practice guidelines, nor explicit local

practice standards that cover when bi-directional endoscopy is clinically appropriate. The Committee agreed that the Gastroenterological Society of Australia be provided with the data and asked to consider the need for guidelines or standards for the appropriate concurrent use of these procedures.

The Committee considered co-claiming restrictions on these items but agreed that the major reforms recommended for the colonoscopy services may alter the existing service patterns for these items.

Recommendation 2: Same Day Upper and Lower GI Endoscopy

1. The Committee recommends that this issue be referred to the Gastroenterological Society of Australia to consider the need to develop clinical guidelines or standards for the appropriate concurrent use of these procedures.
2. The Committee recommends against co-claiming restrictions on these items at this stage as the major reforms recommended for the colonoscopy services may alter the existing service patterns for these items.

Recommendation Impact Statement

No changes have been recommended to these items.

6. Items for significant amendment

6.1 Capsule endoscopy (CE) to investigate episode of obscure gastrointestinal bleeding (item 11820)

Issues

The Committee reviewed CE and associated service data and noted the differences between the MSAC predicted services and the actual service volumes (currently ~2.5 times greater than anticipated) and that the number of services has doubled over the past 10 years. The Committee also noted the significant variation in service volumes between and within state and territories. MBS benefits paid in 2014-15 was just over $23m for 12,156 services.

Rationale

The Committee found that the utilisation of capsule endoscopy is higher than anticipated and that the cause of this relates to clinical and pricing factors. Issues related to the MBS fee for these items are discussed below (Recommendation 3.2).

The Committee is concerned that the use of this service may go beyond the item requirements. The Committee agreed that the current item requirements could be enhanced to address any uncertainty about appropriate use. In particular, it should be made clear that iron deficiency (rather than any) anaemia may be an indication of blood loss for CE. In addition, the Committee notes that the service is commonly used in women aged 35 to 55 years, where menorrhagia would be the most common reason for iron deficiency anaemia and this should be considered as the possible cause of anaemia prior to performing CE.

The Committee also considered the pre-requisite procedural requirements specified in this service, namely an upper gastrointestinal endoscopy and a colonoscopy having been performed and not identifying the cause of the bleeding. The Committee agreed that in general a duodenal biopsy should also be performed to exclude coeliac disease as the cause of the iron deficiency anaemia. The Committee acknowledged that this may be clinically unsafe for some patients such as those on anti-coagulants or anti-platelet drugs so the descriptor should specify a warning regarding contra indications.

The Committee also noted that storage requirements for CE imaging is not specified in the explanatory notes. The Committee considers that storage requirements for CE imaging should be provided in the explanatory notes.

Recommendation 3: 1. Capsule Endoscopy

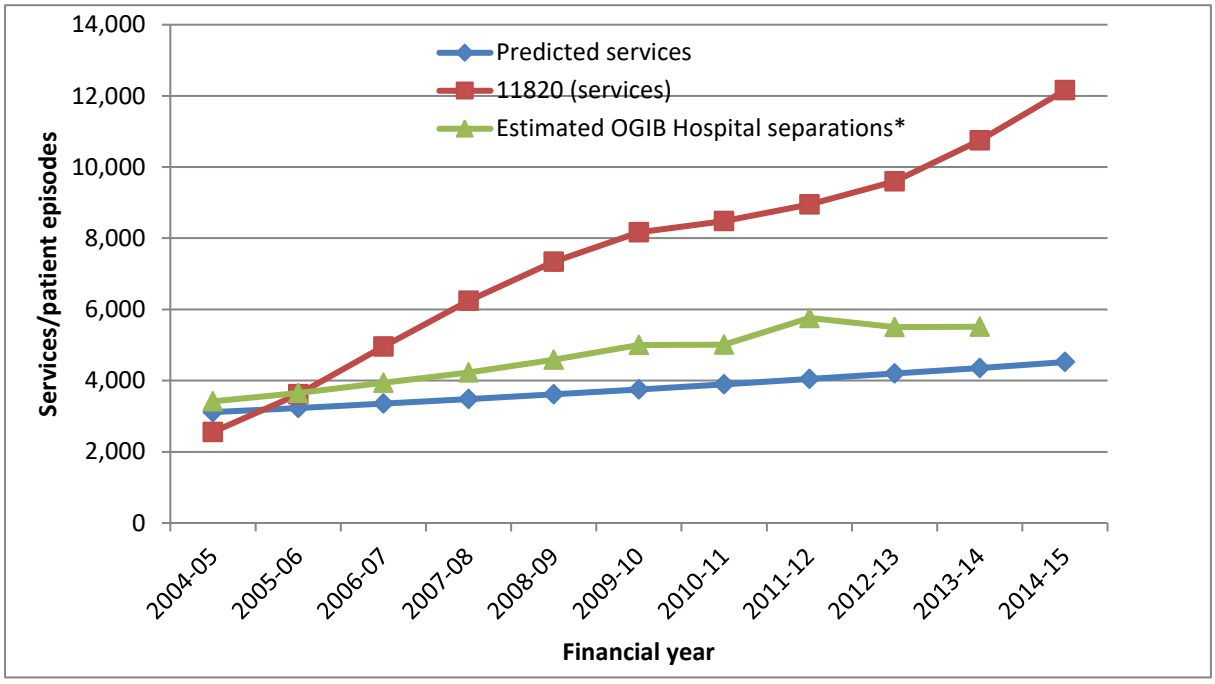
1. The Committee recommends the item descriptor be amended to better describe the service and the prescribed patient population. The Committee recommends the item descriptor specify the following indications and preconditions:

a) Gastrointestinal bleeding that is persistent or recurrent with no cause found at endoscopy and colonoscopy; iron deficiency anaemia not due to coeliac disease where a duodenal biopsy (where not contra indicated) has been performed and menorrhagia if present has been considered and managed; OR
b) The patient has overt active gastrointestinal bleeding with no cause found at endoscopy and colonoscopy
c) The Committee recommends that storage requirements for CE imaging be provided in the explanatory notes to the item.

The proposed item descriptor for item 11820 is set out in Table 12.

Recommendation Impact Statement

The recommendation to amend the item's descriptor will better define the clinical conditions and indications to ensure the right patient group receives this service.



Source: Publicly available MBS Data (Department of Human Services website)
Based on Department of Finance approved costings. *estimated OGIB hospital separations derived from AIHW hospital separation data described on p.4 MSAC application 1057.

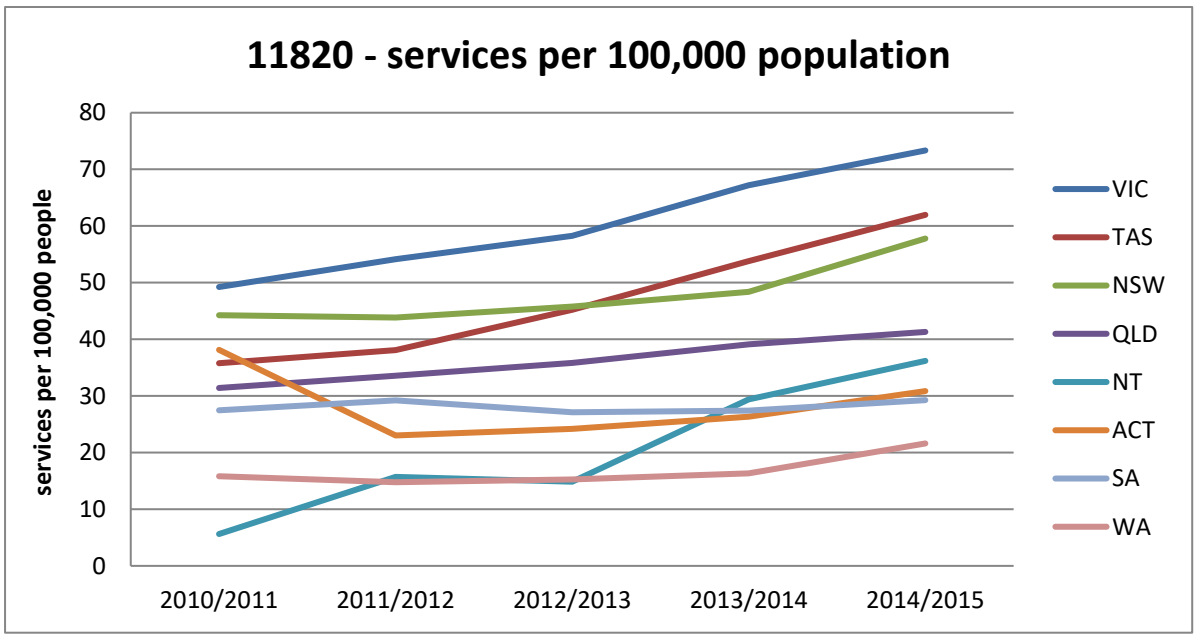
Figure 4: MSAC predicted services vs actual services

Table 9: MBS item 11820 for Capsule Endoscopy utilisation data

Year	Number of services	MBS benefits paid	% Growth
2003/04	134	$212,451	0
2004/05	2,556	$4,129,917	1844%
2005/06	3,613	$5,918,034	43%
2006/07	4,957	$8,276,094	40%
2007/08	6,240	$10,692,169	29%
2008/09	7,341	$12,929,036	21%
2009/10	8,165	$14,729,383	14%
2010/11	8,485	$15,616,801	6%
2011/12	8,950	$16,735,411	7%
2012/13	9,597	$18,328,540	10%
2013/14	10,746	$20,654,000	13%
2014/15	12,156	$23,331,903	13%

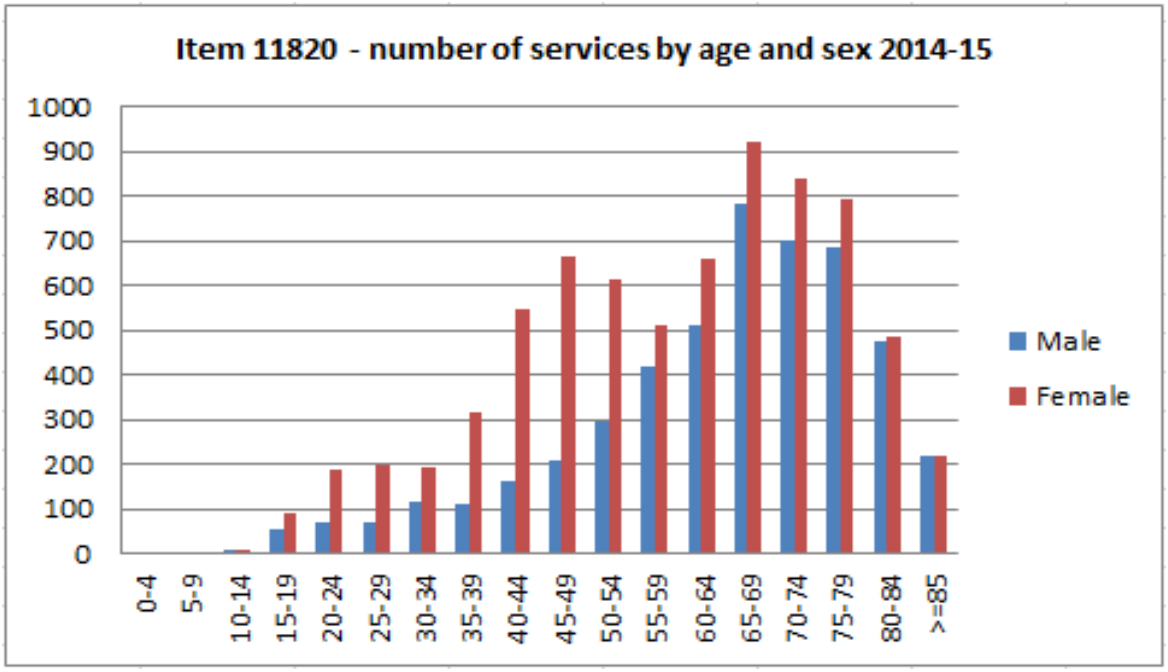
Source: Publicly available MBS Data (Department of Human Services website)

Table 9 shows basic utilisation data for item 11820 between 2003–04 and 2014–15, indicating a significant growth in service provision.



Source: Calculated from publicly available MBS Data (Department of Human Services website)

Figure 5: Service volumes for capsule endoscopy item 11820 by state and territory per 100,000 population



Source: Publicly available MBS Data (Department of Human Services website)

Figure 6: Capsule endoscopy item 11820 services by age and sex 2014-15

Table 10: Component cost for capsule endoscopy in 2003 and 2016

Component type	MSAC 2003 component cost	Proportion of total cost	2016 component cost*
Capital costs	$282.28	17%	$339.68
Professional fee	$517.35	31%	$622.54
Cost of capsule	$895.00	52%	$1,076.98
MBS Fee	**$1,694.63**	**100%**	**$2,039.20**

*2016 component cost is calculated by applying the 2003 proportions to the 2016 MBS fee (note: proportions have been rounded to the nearest 1%).

The professional fee component was calculated by MSAC using 'equivalent' MBS services with a time and complexity similar to that of CE. The MBS fee for the following services was added together to determine the professional fee component ($517.35 in 2003):

- **30476** – Oesophagoscopy, Gastroscopy, Duodenoscopy, Panendoscopy ($204.10);
- **32090** – Fibreoptic colonoscopy ($277.80); and
- **105** – Subsequent specialist attendance ($35.65).

The MBS fee for CE also includes the cost of a consultation (item 105). The current out-of-hospital rebate for CE is $1,959.70 (90% of services are provided out of hospital).

Table 11: Current MBS descriptor for capsule endoscopy item 11820

Item	Item Descriptor	Schedule Fee	Services 2014-15	Service Change 2011-12 to 2014-15
11820	Capsule endoscopy to investigate an episode of obscure gastrointestinal bleeding, using a capsule endoscopy device (including administration of the capsule, associated endoscopy procedure if required for placement, imaging, image reading and interpretation, and all attendances for providing the service on the day the capsule is administered) if: (a) the patient to whom the service is provided: (i) has recurrent or persistent bleeding; and (ii) is anaemic or has active bleeding; and (b) an upper gastrointestinal endoscopy and a colonoscopy have been performed on the patient and have not identified the cause of the bleeding; and (c) the service has not been provided to the same patient on more than 2 occasions in the preceding 12 months; and (d) the service is performed by a specialist or consultant physician with endoscopic training that is recognised by The Conjoint Committee for Recognition of Training in Gastrointestinal Endoscopy; and (e) the service is not associated with balloon enteroscopy.	$2,039.20	12,156	36%

Source: Publicly available MBS Data (Department of Human Services website)

Table 12: Proposed MBS descriptor for capsule endoscopy item 11820

Item #	Item Descriptor	Schedule Fee
11820	Capsule endoscopy to investigate an episode of obscure gastrointestinal bleeding, using a capsule endoscopy device (including administration of the capsule, associated endoscopy procedure if required for placement, imaging, image reading and interpretation, and all attendances for providing the service on the day the capsule is administered) if: (a) the patient to whom the service is provided: (i) has recurrent or persistent GI bleeding; and *(1) has iron deficiency anaemia that is not due to coeliac disease,* *(2) a duodenal biopsy (where not contra indicated) has been performed and has not identified the cause of the iron deficiency anaemia* *(3) menorrhagia if present has been considered and managed; OR* (ii) has overt active GI bleeding; and (b) an upper gastrointestinal endoscopy and a colonoscopy have been performed on the patient and have not identified the cause of the bleeding; and (c) the service has not been provided to the same patient on more than 2 occasions in the preceding 12 months; and (d) the service is performed by a specialist or consultant physician with endoscopic training that is recognised by The Conjoint Committee for Recognition of Training in Gastrointestinal Endoscopy; and (e) the service is not associated with balloon enteroscopy.	$2,039.20

Proposed additions are underlined.

Rationale

A rapid review undertaken by the Department of Health, at the request of the Committee, did not find any correlation between the increase in services and the prevalence and hospitalisation of OGIB in Australia. The rapid review report is provided at Appendix C.

The Committee noted there are very few MBS items that explicitly cover high cost consumables (CE is a notable example), and a large proportion of the CE fee (~70%) covers capital and consumable costs. There is potential for these costs to reduce over time and depending on the location of the service, the consumable cost may or may not be borne by the practitioner who receives the MBS benefit.

The Committee noted that the current MBS fee for CE item (item 11820) is $2,039.20. Table 10 shows the component cost of CE as assessed by MSAC in 2003 and the component costs in 2016 based on those proportions with fee indexing. The Committee found that the price of the 'pillcam' has not increased in price since 2003, yet the MBS fee has increased with indexing. The component of the fee that represents the 'pillcam' now is $1,076.98, a difference of $181.98.

Recommendation 3: 2. Capsule Endoscopy

The Committee considers that the usage pattern of CE is not explained on clinical grounds alone and the fee of $2,039.20 may be driving higher than anticipated use.

1. The Committee recommends a fee assessment by MSAC to see whether the current fee is reflective of the current costs for CE item 11820. This assessment may also have flow-on effects to the fee for CE item 11823 which was modelled on the fee for CE item 11820.

Recommendation Impact Statement

The recommendation for a fee assessment by Medical Services Advisory Committee (MSAC) will address concerns that the fee may be set too high and may be driving higher than expected use.

6.2 Endoscopic upper gastrointestinal services (items 30473, 30476, 30478, 30479)

Issues

The Committee reviewed the upper GI endoscopy services (MBS items 30473, 30476, 30478, 30479) and associated service data. The Committee noted that two of these items had service level change from 2011-12 to 2014-15 of 29% for item 30479 and 32% for item 30478. The Committee also noted the higher fee for item 30479 which provides for endoscopic laser therapy or Argon Plasma Coagulation (APC) for the treatment of specified conditions. The Committee raised concerns that there is some inconsistency between the descriptors for these items.

Rationale

The Committee agreed that APC is no more time consuming of the skills required than other forms of endoscopic interventions and APC should be moved from the laser item 30479 into the more general endoscopic item 30478. The Committee also agreed that items 30476 and 30478 should be simplified by consolidating the services into one item. This consolidation will not change the fee or the intent of these services.

The restructure proposed will provide one diagnostic item 30473, a general therapeutic item 30478 (without laser) and a stand-alone higher rebated item 30479 for laser procedures in specified circumstances. The Committee agreed that these changes should include minor amendments to the item descriptors to maintain requirements that the therapeutic items specify the available techniques and pathologies.

The Committee reviewed the data on repeat services for these items to determine if frequency restrictions should be introduced. The Committee noted that over 40 per cent of patients had a repeat service within a three – five period, ranging between two and 51 repeats per patient. The Committee agreed that repeat services should be determined by recurrent bleeding and it would be unusual to need to repeat the service.

The Committee agreed that the major reforms to the colonoscopy services may alter existing service patterns for these items and that repeat data should be reviewed again following these changes. The Committee agreed that the current co-claiming restrictions on these items (same patient, same day, same provider) should be retained and similar restrictions applied to item 30479.

Table 13: Data on repeat service (item 30473) per patient 2008-09 to 2014-15

No. of times Item 30473 claimed	No. of Patients	No. of Services	Patient percentage
1	1,344,795	1,344,795	58.6%
2	277,895	555,790	24.2%
3	74,705	224,115	9.8%
4	22,548	90,192	3.9%
5	7,491	37,455	1.6%
6	3,144	18,864	0.8%
7	1,561	10,927	0.5%
8	637	5,096	0.2%
9	296	2,664	0.1%
10	189	1,890	0.1%
11	101	1,111	<0.1%
12	64	768	<0.1%

No. of times Item 30473 claimed	No. of Patients	No. of Services	Patient percentage
13	39	507	<0.1%
14	26	364	<0.1%
15	18	270	<0.1%
16	8	128	<0.1%
17	5	85	<0.1%
18 - 51	16	389	<0.1%

Source: Department of Health (unpublished MBS data)

Table 14: Current MBS upper GI endoscopy items

Item	Item Descriptor	Schedule Fee	Services 2014–15	Service Change 2011–12 to 2014–15
30473	OESOPHAGOSCOPY (not being a service to which item 41816 or 41822 applies), GASTROSCOPY, DUODENOSCOPY or PANENDOSCOPY (1 or more such procedures), with or without biopsy, not being a service associated with a service to which item 30476 and 30478, applies (Anaes.)	$177.10	373,349	12%
30476	OESOPHAGOSCOPY (not being a service to which item 41816 or 41822 applies), GASTROSCOPY, DUODENOSCOPY or PANENDOSCOPY (1 or more such procedures), with endoscopic sclerosing injection or banding of oesophageal or gastric varices, not being a service associated with a service to which item 30473 or 30478 applies (Anaes.)	$245.55	1,742	1%
30478	OESOPHAGOSCOPY (not being a service to which item 41816, 41822 or 41825 applies), gastroscopy, duodenoscopy or panendoscopy (1 or more such procedures), with 1 or more of the following endoscopic procedures - polypectomy, removal of foreign body, diathermy, heater probe or laser coagulation, or sclerosing injection of bleeding upper gastrointestinal lesions, not being a service associated with a service to which item 30473 or 30476 applies (Anaes.)	$245.55	16,267	32%
30479	ENDOSCOPY with LASER THERAPY or ARGON PLASMA COAGULATION, for the treatment of neoplasia, benign vascular lesions, strictures of the gastrointestinal tract, tumorous overgrowth through or over oesophageal stents, peptic ulcers, angiodysplasia, gastric antral vascular ectasia	$476.10	2,315	29%

Item	Item Descriptor	Schedule Fee	Services 2014–15	Service Change 2011–12 to 2014–15
	(GAVE) or post-polypectomy bleeding, 1 or more of (Anaes.)			

Source: Publicly available MBS Data (Department of Human Services website)

Table 15: Proposed restructure of MBS upper GI endoscopy items

Item	Item Descriptor	Schedule Fee
30473	OESOPHAGOSCOPY (not being a service to which item 41816 or 41822 applies) GASTROSCOPY, DUODENOSCOPY or PANENDOSCOPY (1 or more such procedures), with or without biopsy, not being a service associated with a service to which item 30478 or 30479, applies (Anaes.)	$177.10
30476	Service combined with item 30478	**$245.55**
30478	OESOPHAGOSCOPY (not being a service to which item 41816, 41822 or 41825 applies and not being a services associated with a service to which item 30473 or 30479 applies), GASTROSCOPY, DUODENOSCOPY , PANENDOSCOPY or PUSH ENTEROSCOPY (1 or more such procedures), with 1 or more of the following endoscopic procedures: i Polypectomy ii Sclerosing or adrenalin injections iii Banding iv Endoscopic clips, v Haemostatic powders vi Diathermy vii Argon plasma coagulation For the treatment of: a) Upper gastrointestinal tract bleeding b) Polyps c) Foreign body (removal), d) Oesophageal or gastric varices e) Peptic ulcers f) Neoplasia g) Benign vascular lesions h) Strictures of the gastrointestinal tract i) Tumorous overgrowth through or over oesophageal stents (Anaes.)	$245.55
30479	ENDOSCOPY with LASER THERAPY, (not being a service associated with a service to which item 30473 or 30478 applies) for the treatment of 1 or more of: a) Neoplasia b) Benign vascular lesions c) Strictures of the gastrointestinal tract d) Tumorous overgrowth through or over oesophageal stents e) Peptic ulcers f) Angiodysplasia g) Gastric antral vascular ectasia (GAVE) h) Post-polypectomy bleeding (Anaes.)	$476.10

Proposed additions are underlined.

Recommendation 4: 1. Endoscopic upper gastrointestinal services

1. The Committee recommends simplifying and restructuring items 30473, 30476, 30478, 30479, by combining items 30476 and 30478 and moving Argon Plasma Coagulation (APC) from the laser item 30479 into the more general (without laser) item 30478. The recommended restructure will not change the fee or the intent of the services and will provide one diagnostic item 30473, a general therapeutic item 30478 (without laser) and a stand-alone higher rebated item 30479 for laser procedures in specified circumstances. This change would also involve minor amendments to the item descriptors to maintain requirements that the therapeutic items specify the available techniques and pathologies to be treated.
2. The Committee recommends that co-claiming restrictions on these items (same patient, same day, same provider) be retained for items 30473 and 30478 and similar restrictions applied to item 30479.
3. The Committee recommends that GESA be provided with the repeat service data for these items and asked to consider developing suitable guidelines on when repeat services are clinically appropriate.
4. The Committee recommends repeat service data on these items should be reviewed again following proposed colonoscopy changes as this may change existing service patterns.

Recommendation Impact Statement

The recommendation to consolidate these services will simplify the item structure and minimise confusion about which items should be billed by providers. The recommended changes will ensure that patients receive services that reflect contemporary clinical practice and techniques.

Push Enteroscopy

The Committee noted that Push Enteroscopy (PE) is currently being provided under MBS item 30487 - *small bowel intubations with biopsy*. A rapid evidence review of this procedure was undertaken by the Department of Health at the request of the Committee to examine the evidence for this procedure.

Rationale

Based on the evidence review and their knowledge of Australian practice, the Committee found PE to be a niche service and well established for diagnosis of obscure GI bleeding, where it complements capsule endoscopy and balloon enteroscopy. The Committee agreed that the main indication for PE is for small bowel lesions detected usually by capsule endoscopy and are judged to be within a short distance beyond the duodenum within reach of the PE for the therapeutic management of those lesions. The Committee agreed that item 30487 would become obsolete if PE services were moved to the upper GI endoscopy service 30478. The evidence review is provided at Appendix D.

Recommendation 4: 2. Endoscopic upper gastrointestinal services

1. The Committee recommends that PE be included in the upper GI endoscopic interventional item 30478 and that services provided under item 30487 – *small bowel intubations* will shift, making this item obsolete.

Recommendation Impact Statement

The recommendation to provide for Push Enteroscopy in the upper GI endoscopy item 30478 will assist practitioners as the service is better defined under this item than under the small bowel intubation item 30487.

6.3 Endoscopic upper gastrointestinal strictures (items 30475, 41819, 41820 and 41831)

Issues

The Committee reviewed endoscopic upper gastrointestinal stricture items referred to it by the ENT Clinical Committee and identified overlap between these items and item 30475.

Rationale

The Committee found no concerns with the clinical utility of these services but considers that the structure of these items is overly complicated. The MBS data was reviewed and disclosed that most services are provided by gastroenterologists and covered under item 41819, with relatively low volumes for the other stricture items.

The Committee agreed that two items (41819 and 41820) could be simplified and consolidated with item 30475. The Committee further agreed that the consolidated item should allow any endoscopic technique to be performed for oesophageal through to gastroduodenal procedures and include imaging intensification if done.

An explanatory note is recommended to make this intention clear.

The proposed fee was considered for the consolidated item and the Committee agreed that it should be the current fee for 41819 which is higher than 30475 but lower than 41820.

The Committee also reviewed item 41831 and agreed that the service should be amended to indicate that it is specific to the treatment of achalasia.

Recommendation 5: Endoscopic upper gastrointestinal strictures

The Committee recommends consolidation of items 41819, 41820 and 30475. The consolidated item will allow any endoscopic technique to be performed for oesophageal through to gastroduodenal procedures and include imaging intensification if done. An explanatory note is recommended to make this intention clear.

It is recommended that the fee for this item is the current fee for 41819 which is higher than 30475 but lower than 41820.

The Committee also recommends that item 41831 be amended to indicate that this service is specific to the treatment of achalasia.

Recommendation Impact Statement

The recommendation to consolidate these services will simplify the item structure and minimise confusion about which items should be billed by providers. The recommended changes will ensure that patients receive services that reflect contemporary clinical practice and techniques.

Table 16: Current endoscopic upper GI stricture items

Item #	Item Descriptor	Schedule Fee	Services 2014–15	Service Change 2011–12 to 2014–15
30475	Δ ENDOSCOPY with balloon dilatation of gastric or gastroduodenal stricture Δ Multiple Services Rule (Anaes.)	$320.25	1,315	1%
41819	Δ DILATATION OF STRICTURE OF UPPER GASTRO-INTESTINAL TRACT using bougie or balloon over endoscopically inserted guidewire, including endoscopy with flexible or rigid endoscope Δ Multiple Services Rule (Anaes.)	$348.95	11,649	14%
41820	Δ DILATATION OF STRICTURE OF UPPER GASTRO-INTESTINAL TRACT using bougie or balloon over endoscopically inserted guidewire, including endoscopy with flexible or rigid endoscope, where the use of imaging intensification is clinically indicated Δ Multiple Services Rule (Anaes.)	$418.75	374	30%
41831	Δ OESOPHAGUS, endoscopic pneumatic dilation of Δ Multiple Services Rule (Anaes.)	$357.00	356	-7%

Source: Publicly available MBS Data (Department of Human Services website)

Table 17: Proposed endoscopic upper GI stricture items

Item	Item Descriptor	Schedule Fee
30475	Δ ENDOSCOPIC DILATATION OF STRICTURE OF UPPER GASTRO-INTESTINAL TRACT including the use of imaging intensification where clinically indicated Δ Multiple Services Rule (Anaes.)	$348.95
41819	Service consolidated in item 30475	$348.95
41820	Service consolidated in item 30475	$418.75
41831	OESOPHAGUS, endoscopic pneumatic dilatation for treatment of achalasia Multiple Services Rule (Anaes.)	$357.00

6.4 Flexible fibreoptic sigmoidoscopy or fibreoptic colonoscopy (items 32084 and 32087)

Issue

The Committee reviewed sigmoidoscopy/colonoscopy services (items 32084 and 32087) and the associated service data. The Committee is concerned that the language used to describe some aspects of the service is out-of-date and that the quality requirements could be enhanced.

Table 18: Co-claiming of items 32090, 32093, 32084 and 32087 (5 year data) 2010-11 to 2014-15

Items	Episodes	Number of Services
32090	1,317,388	1,317,532
32093	896,188	896,269
32084	91,596	91,673
32093 and 32090	202	405
32090 and 32084	86	173
32093 and 32084	84	170
32093 and 32087	12	24
32090 and 32087	5	10
32087 and 32084	29	58

Source: Department of Health (unpublished MBS data)

Rationale

The Committee considers that the item descriptors could better define the examination of the colon to emphasise the importance of a complete colonoscopy. The current examination requirements, '*up to the hepatic flexure',* is out-of-date and examination which has not reached the caecum ensures that a comprehensive examination of the colon is performed. This is a quality measure and complements recommended changes to colonoscopy items 32090 and 32093.

The Committee noted that this requirement is not possible for a small number of patients without a caecum. Patients who have had a right hemicolectomy should be examined to the anastomosis.

The Committee agreed that 'fibreoptic' in the item descriptor is no longer relevant as both scopes are digital.

The Committee considered the use of Argon Plasma Coagulation (APC) in the item 32087 and agreed that the use of this therapy is too restrictive and does not allow other therapies to be used.

The review of data disclosed a number of same day co-claiming of items 32093 and 32090 and the Committee did not believe that there could be any clinical justification for this during the same episode of care.

Recommendation 6: Flexible fibreoptic sigmoidoscopy or fibreoptic colonoscopy

The Committee recommends amending the descriptors for items 32084 and 32087 to better define the examination of the colon from '*up to the hepatic flexure'* to '*which has not reached the caecum'* as a quality measure designed to emphasise the importance of a complete colonoscopy.

a) The Committee recommends that the descriptors for items 32084 and 32087 be amended to better define the examination of the colon from 'up to the hepatic flexure' to 'which has not reached the caecum'. Noting that this requirement is not possible for a small number of patients without a caecum. For patients post right hemicolectomy this examination will not reach the anastomosis. This complements recommended changes to colonoscopy items 32090 and 32093.
b) The specific reference to APC to be removed to enable other therapies to be used.
c) The removal of 'fibreoptic' from the item descriptors as both scopes are digital.
d) Introduce restrictions on the co-claiming of these items and with colonoscopy items 32090 and 32093, same patient, same day, same provider. These items should not be claimed together unless the subsequent service has been provided under a second episode of sedation/anaesthesia.

Recommendation Impact Statement

The recommendation to update the descriptors for these items will better define the examination of the colon and ensure patients receive a comprehensive colonoscopy. Patients and providers will also benefit from the expansion of therapies that can be used to control bleeding under the therapeutic service item 32087.

Table 19: Current MBS descriptors for sigmoidoscopy and colonoscopy items 32084 & 32087

Item #	Item Descriptor	Schedule Fee	Services 2014–15	Service Change 2011–12 to 2014–15
32084	Δ FLEXIBLE FIBREOPTIC SIGMOIDOSCOPY or FIBREOPTIC COLONOSCOPY up to the hepatic flexure, WITH or WITHOUT BIOPSY Δ Multiple Service Rule (Anaes.)	$111.35	18,695	1%
32087	Δ Endoscopic examination of the colon up to the hepatic flexure by FLEXIBLE FIBREOPTIC SIGMOIDOSCOPY or FIBREOPTIC COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS or the treatment of radiation proctitis, angiodysplasia or post-polypectomy bleeding by ARGON PLASMA COAGULATION, 1 or more of Δ Multiple Services Rule (Anaes.)	$204.70	3,247	6%

Source: Publicly available MBS Data (Department of Human Services website)

Table 20: Proposed MBS descriptors for sigmoidoscopy and colonoscopy items 32084 & 32087

Item	Item Descriptor	Schedule Fee
32084	Δ Endoscopic examination of the colon which does not reach the caecum by FLEXIBLE SIGMOIDOSCOPY or COLONOSCOPY, WITH or WITHOUT BIOPSY, not being a service to which items 32087, 32090, 32093 applies Δ Multiple Services Rule (Anaes.)	$111.35
32087	Δ Endoscopic examination of the colon which does not reach the caecum by FLEXIBLE SIGMOIDOSCOPY or COLONOSCOPY for the REMOVAL OF 1 OR MORE POLYPS or the treatment of radiation proctitis, angiodysplasia or post-polypectomy bleeding, 1 or more of, not being a service to which items 32084, 32090, 32093 applies Δ Multiple Services Rule (Anaes.)	$204.70

Proposed additions are underlined.

6.5 Endoscopic Ultrasound (items 30688, 30690, 30692, 30694)

Issues

The Committee reviewed Endoscopic Ultrasound (EUS) services to determine if co-claiming restrictions should be removed and allow therapeutic procedures to be performed during the same episode of care. The Committee notes that these items were introduced in 2007 following MSAC appraisal and that the indication for EUS is limited to staging of various gastro-intestinal cancers. The Committee notes the intended purpose but is concerned that the co-claiming restrictions on the EUS items significantly restricts the management of some patients who are found to require therapeutic services following EUS.

Rationale

The Committee reviewed subsequent service patterns for patients who received EUS and found that within one month of having this procedure; patients are often having a second anaesthesia for ERCP (item 30484) and/or related therapeutic procedures. This means that patients may undergo a second episode of care (with a second anaesthetic) to perform the necessary therapeutic intervention. A typical example is for a patient who requires bile duct stenting following EUS staging of pancreatic cancer. The Committee agreed that it is clinically appropriate to provide the services listed in Table 22 during the same episode of care and the patient should not be required to undergo a second episode of anaesthesia. The Committee noted that the number of practitioners that have the skills to do both EUS and ERCP activities is small and this should be reflected in the co-claiming of these services.

Recommendation 7: Endoscopic Ultrasound

The Committee recommends that if during an Endoscopic Ultrasound (EUS) examination an issue is identified which requires an ERCP or related therapeutic procedure, it is clinically appropriate that these procedures be performed on the same occasion. Co-claiming restrictions should be removed on the EUS items 30688 to 30694 to allow ERCP therapeutic procedures (items 30484, 30485, 30494) to be performed during the same episode of care.

The Committee noted that should co-claiming restrictions be relaxed there may be some unanticipated financial impacts on the billing of these items.

Recommendation Impact Statement

The recommendation to remove the current claiming restrictions on these diagnostic services will benefit patients as it will allow practitioners to provide specific therapeutic services during the same episode of care. This will mean that patients will not be required to undergo a second sedation.

Table 21: Current Endoscopic Ultrasound items

Item	Item Descriptor	Schedule Fee	Services 2014–15	Service Change 2011–12 to 2014–15
30688	ENDOSCOPIC ULTRASOUND (endoscopy with ultrasound imaging), with or without biopsy, for the staging of 1 or more of oesophageal, gastric or pancreatic cancer, not in association with another item in this Subgroup and not being a service associated with the routine monitoring of chronic pancreatitis. (Anaes.)	$364.90	1,545	19%
30690	ENDOSCOPIC ULTRASOUND (endoscopy with ultrasound imaging), with or without biopsy, WITH FINE NEEDLE ASPIRATION, including aspiration of the locoregional lymph nodes if performed, for the staging of 1 or more of oesophageal, gastric or pancreatic cancer, not in association with another item in this Subgroup and not being a service associated with the routine monitoring of chronic pancreatitis. (Anaes.)	$563.30	779	-6%
30692	ENDOSCOPIC ULTRASOUND (endoscopy with ultrasound imaging), with or without biopsy, for the diagnosis of 1 or more of pancreatic, biliary or gastric submucosal tumours, not in association with another item in this Subgroup and not being a service associated with the routine monitoring of chronic pancreatitis. (Anaes.)	$364.90	3,085	40%
30694	ENDOSCOPIC ULTRASOUND (endoscopy with ultrasound imaging), with or without biopsy, WITH FINE NEEDLE ASPIRATION for the diagnosis of 1 or more of pancreatic, biliary or gastric submucosal tumours, not in association with another item in this Subgroup and not being a service associated with the routine monitoring of chronic pancreatitis. (Anaes.)	$563.30	1,689	61%

Source: Publicly available MBS Data (Department of Human Services website)

Table 22: Subsequent gastroenterology services (items 30484, 30485, 30494) performed on patients in the month preceding Endoscopic Ultrasound items 30688 to 30696

Item #	Descriptor (brief)	2013–14 Services	2014–15 Services
30484	ERCP	143	124
30485	Endoscopic sphincterotomy	123	105
30494	Endoscopic biliary dilatation	5	6

Source: Department of Health (unpublished MBS data)

7. Items requiring further assessment

7.1 Balloon Enteroscopy (items, 30680, 30682, 30684, 30686)

Issues

The Committee reviewed these services to determine if the current clinical indication could be expanded to include some capacity to manage small bowel diseases without anaemia or bleeding, specifically, but not restricted to, Crohn's disease.

Table 23: Current Balloon Enteroscopy items

Item	Item Descriptor	Schedule Fee	Services 2014–15	Service Change 2011–12 to 2014–15
30680	Δ Balloon enteroscopy, examination of the small bowel (oral approach), with or without biopsy, WITHOUT intraprocedural therapy, for diagnosis of patients with obscure gastrointestinal bleeding, not in association with another item in this subgroup (with the exception of item 30682 or 30686) Δ The patient to whom the service is provided must: (i) have recurrent or persistent bleeding; and (ii) be anaemic or have active bleeding; and (iii) have had an upper gastrointestinal endoscopy and a colonoscopy performed which did not identify the cause of the bleeding. (Anaes.)	$1,170.00	302	60%
30682	Δ Balloon enteroscopy, examination of the small bowel (anal approach), with or without biopsy, WITHOUT intraprocedural therapy, for diagnosis of patients with obscure gastrointestinal bleeding, not in association with another item in this subgroup (with the exception of item 30680 or 30684) Δ The patient to whom the service is provided must: (i) have recurrent or persistent bleeding; and (ii) be anaemic or have active bleeding; and (iii) have had an upper gastrointestinal endoscopy and a colonoscopy performed which did not identify the cause of the bleeding. (Anaes.)	$1,170.00	239	44%
30684	Δ Balloon enteroscopy, examination of the small bowel (oral approach), with or without biopsy, WITH 1 or more of the following procedures (snare polypectomy, removal of foreign body, diathermy, heater probe, laser coagulation or argon plasma coagulation), for diagnosis and management of patients with obscure gastrointestinal bleeding, not in association with another item in this subgroup (with the exception of item 30682 or 30686) Δ The patient to whom the service is provided must: (i) have recurrent or persistent bleeding; and (ii) be anaemic or have active bleeding; and	$1,439.85	364	144%

Item	Item Descriptor	Schedule Fee	Services 2014–15	Service Change 2011–12 to 2014–15
	(iii) have had an upper gastrointestinal endoscopy and a colonoscopy performed which did not identify the cause of the bleeding. (Anaes.)			
30686	Δ Balloon enteroscopy, examination of the small bowel (anal approach), with or without biopsy, WITH 1 or more of the following procedures (snare polypectomy, removal of foreign body, diathermy, heater probe, laser coagulation or argon plasma coagulation), for diagnosis and management of patients with obscure gastrointestinal bleeding, not in association with another item in this subgroup (with the exception of item 30680 or 30684) Δ The patient to whom the service is provided must: (i) have recurrent or persistent bleeding; and (ii) be anaemic or have active bleeding; and (iii) have had an upper gastrointestinal endoscopy and a colonoscopy performed which did not identify the cause of the bleeding. (Anaes.)	$1,439.85	105	48%

Source: Publicly available MBS Data (Department of Human Services website)

Rationale

The Committee noted that an important emerging clinical gap is the enteroscopic management (diagnosis and therapy) of small bowel strictures in the absence of anaemia or bleeding. With enhanced small bowel cross-sectional imaging, increasing numbers of patients with enteric masses and strictures are being referred for balloon enteroscopy for characterization and treatment.

Currently these items are restricted to patients who present with bleeding and anaemia, similar to capsule endoscopy, and the therapeutic interventions available do not include balloon dilatation. This significantly restricts the management of these patients, and exposes them to unnecessary other tests and procedures, including surgery.

The Committee noted that in its November 2013 assessment for these services (MSAC application 1206) MSAC reported that balloon enteroscopy may be useful in patients with small bowel disease who present without bleeding. However, the applicant had not sought MBS listing for these conditions. The Committee noted that an expansion of the clinical conditions for these services would need to be referred back to MSAC for assessment.

For clarity, the Committee noted the difference between balloon enteroscopy (where a balloon attached to the endoscope (single balloon) or to the endoscope and associated overtube (double balloon) to enable passage of the endoscope through the small bowel, and endoscopic balloon dilatation which is a therapeutic procedure using a 'through the scope' balloon which is inflated to treat strictures in the bowel, in this case, through a single or double balloon enteroscope.

Recommendation 8: Balloon Enteroscopy

The Committee recommends an MSAC assessment to expand the conditions for these items to manage small bowel diseases without anaemia or bleeding, specifically, but not restricted to, Crohn's disease.

Recommendation Impact Statement

No changes to these items have been recommended. However, MSAC will be asked to review these items to expand the conditions and patient population to better manage a range of small bowel diseases.

8. New Items

8.1 Endoscopic Mucosal Resection

Issues

The Committee proposes that consideration be given to adding a new MBS item for the removal of very large polyps by Endoscopic Mucosal Resection (EMR). The Committee noted that if surgery is currently the only approach for the removal of very large polyps then EMR would need to meet an evidence threshold for clinical safety. If a fee greater than colonoscopy is envisaged then cost effectiveness must also be considered.

Rationale

The Committee considered research evidence on the safety, clinical effectiveness and cost-effectiveness of this procedure and noted the widespread use in public hospitals. The Committee noted the range of EMR complexity, time and expertise required to perform the procedure and considered if the service should be restricted to specialist to specialist referrals and or if specifying the size of the resected specimen is required.

The Committee agreed that it should not be restricted to tertiary referral as this would prevent experienced specialists from completing the procedure if found during a normal colonoscopy. It would also mean that the patient would undergo an unnecessary second sedation for the removal at a later date. The Committee agreed that the resected specimen should exceed a diameter of around 2.5 - 3.0 cm on the understanding the polyp may have been removed in bits but if pieced together would achieve this dimension.

Recommendation 9: Endoscopic Mucosal Resection

The Committee recommends an assessment by the Medical Services Advisory Committee (MSAC) of EMR to enable consideration of public funding for this procedure. The Committee recommends that the Gastroenterological Society of Australia (GESA) submit an application to MSAC and request an expedited assessment.

Recommendation Impact Statement

The Committee recommends GESA sponsor an MSAC application for public funding of EMR for the removal of very large polyps. This would be an alternative to surgery and would benefit the patient as it would be less invasive and recovery time would be reduced.

9. Obsolete items

9.1 First round of obsolete items

Issue

The Committee was asked by the Taskforce to identify obsolete services that have no clinical purpose in contemporary practice as they have been superseded by another procedure, or the service identified is better covered under another item.

Rationale

The Committee reviewed items 13500 and 13503 and noted the low level of services. The Committee agreed that these items are no longer part of contemporary clinical practice.

The Committee reviewed items 32078 and 32081 and agreed that these have been superseded by other sigmoidoscopy services.

It should be noted that items relating to flexible sigmoidoscopy, including with polypectomy, remain in the schedule. For example, MBS items 32084 (flexible fibreoptic sigmoidoscopy or fibreoptic colonoscopy up to the hepatic flexure, with or without biopsy) and item 32087 (endoscopic examination of the colon up to the hepatic flexure by flexible fibreoptic sigmoidoscopy or fibreoptic colonoscopy for the removal of 1 or more polyps or the treatment of radiation proctitis, angiodysplasia or post-polypectomy by argon plasma coagulation) provide for sigmoidoscopy examination and treatment.

Recommendation 10: 1. Obsolete items – first round

The Committee recommend items 13500, 13503, 32087 and 32081 be removed from the MBS as they have no clinical purpose in contemporary practice as they have been superseded by another service or procedure, or the service identified is better covered under another item:

In December 2015, these items were included in open public consultation for obsolete items. Public comments received were considered by the Committee and in February 2016 the MBS Review Taskforce recommended to Government that these items be removed from the MBS. The Government agreed with this recommendation with an effective date of 1 July 2016.

Table 24: First round recommendations–obsolete items

Item	Item Descriptor	Schedule Fee	Services 2014–15
13500	GASTRIC HYPOTHERMIA by closed circuit circulation of refrigerant IN THE ABSENCE OF GASTROINTESTINAL HAEMORRHAGE	$180.30	9
13503	GASTRIC HYPOTHERMIA by closed circuit circulation of refrigerant FOR UPPER GASTROINTESTINAL HAEMORRHAGE	$360.70	0
32078	SIGMOIDOSCOPIC EXAMINATION with diathermy OR resection of 1 or more polyps where the time taken is less than or equal to 45 minutes (Anaes.)	$168.55	151
32081	SIGMOIDOSCOPIC EXAMINATION with diathermy OR resection of 1 or more polyps where the time taken is greater than 45 minutes (Anaes.)	$231.45	27

Source: Publicly available MBS Data (Department of Human Services website)

9.2 Second round of obsolete items

Issue

The Committee identified a further two items it considers obsolete and should be removed from the MBS.

Rationale

Item 30487 for small bowel intubation with biopsy has been identified by the Committee as obsolete as it has been superseded by another procedure, i.e. Push Enteroscopy which the Committee agrees should be included in the upper GI interventional item 30478. More detail on Push Enteroscopy is provided in Section 6.26.2.

Item 30493 for biliary manometry was included in the public consultation for obsolete items in December 2015. The Committee reviewed the comments received and sought further expert opinion on the procedure. The advice received confirmed that biliary manometry is not supported by the published literature and should be removed from the MBS. The Committee agreed that this item is obsolete.

Recommendation 10: 2. Obsolete items – second round

The Committee recommends the removal of item 30487 from the MBS as it has no clinical purpose in contemporary practice. The Committee recommends that the service provided under item 30487, push enteroscopy, is better covered under another item for interventional upper GI endoscopic procedures item 30478.

The Committee recommends the removal of item 30493 from the MBS as it is not supported by the published literature and has no place in contemporary clinical practice.

Recommendation Impact Statement

The removal of these items from the MBS is not expected to have an impact on providers or patients. Removing obsolete items from the MBS will benefit providers as it will minimise confusion about which item should be claimed for services and will benefit patients as there will be no Medicare benefit for outdated services, thereby incentivising current clinical practice.

Table 25: Second round recommendations - obsolete items

Item	Item Descriptor	Schedule Fee	Services 2014-15
30487	SMALL BOWEL INTUBATION with biopsy, as an independent procedure (Anaes.)	$180.90	2,297
30493	BILIARY MANOMETRY (Anaes.)	$333.20	17

Source: Publicly available MBS Data (Department of Human Services website)

10. General MBS issues

Generic MBS Issues identified by the Committee

The Committee has identified several issues for noting which have broader application across the MBS and should be considered by the Taskforce.

1. The Committee examined data on co-claiming of services – that is where more than one item per patient is claimed by the same provider on the same day. The Committee notes there is significant variation in the co-claiming of services between doctors, and that the level of co-claiming has increased in some areas.
2. The Committee is generally supportive of limiting co-claiming of consultation services on the same day as a planned procedure e.g. colonoscopy.
3. The Committee noted the implications of including high cost consumables in the item fee for services performed in out-of-hospital settings. The Committee noted that the MBS may not be the best vehicle for funding high cost consumables that are integral to the service for reasons including:
    a) device and consumable costs usually reduce over time and there is no ready ability in the MBS to adjust pricing accordingly.
    b) depending on the location of the service the consumable cost may or may not be borne by the health professional who receives the MBS benefit.
    c) any other available funding sources will vary according to whether it is an in-hospital vs out-of-hospital service and whether it is a private hospital or public hospital service.
4. It is the Committee's view that the lack of funding for high cost consumables through the MBS, private health insurance subsidies and public hospital budgets is compromising access to services with proven clinical value. This issue is evident in item 30687, an endoscopic procedure providing radiofrequency ablation for the treatment of Barrett's Oesophagus. The funding of the high cost disposable radiofrequency ablation device is not covered under the MBS item and private health insurers will not pick up the costs of the device as it is not listed on the prosthesis list.

11. References

Australian Bureau of Statistics. (2015, 12 01). *3101.0 - Australian Demographic Statistics, Dec 2015 .* Retrieved 7 1, 2016, from http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3101.0Dec%202015?OpenDocument

Australian Commission on Safety and Quality in Healthcare. (2015, 11 1). *Australian Atlas of Healthcare Variation 2015.* Retrieved 7 1, 2016, from http://www.safetyandquality.gov.au/search/atlas

Australian Government Department of Human Services. (n.d.). *Health Professionals website*. Retrieved 7 1, 2016, from https://www.humanservices.gov.au/health-professionals

Australian Government Department of Human Services. (2016, 2 12). *Medicare Statistics.* Retrieved 7 1, 2016, from https://www.humanservices.gov.au/corporate/statistical-information-and-data/medicare-statistics#a1

Australian Government. (2016, 5 5). *Health Insurance (General Medical Services Table) Regulation 2016.* Retrieved 7 1, 2016, from https://www.legislation.gov.au/Details/F2016L00769

Australian Government. (n.d.). *MyGov*. Retrieved 7 1, 2016, from https://my.gov.au/mygov/content/html/about.html

Australian Government National Health and Medical Research Council. (2012). *Clinical Practice Guidelines for Surveillance Colonoscopy – in adenoma follow-up; following curative resection of colorectal cancer; and for cancer surveillance in inflammatory bowel disease.* Retrieved 7 1, 2016, from https://www.nhmrc.gov.au/guidelines-publications/ext8

Australian Government National Health and Medical Research Council. (2005). *Clinical Practice Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer.* Retrieved 7 1, 2016, from https://www.nhmrc.gov.au/guidelines-publications/cp106

Australian Government National Health and Medical Research Council. (2005). *Clinical Practice Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer.* Retrieved 7 1, 2016, from https://www.nhmrc.gov.au/guidelines-publications/cp106

Australian Government National Health and Medical Research Council. (2000). *Guidelines for the Prevention, Early Detection and Management of Colorectal Cancer: A Guide for General Practitioners.* Retrieved 7 1, 2016, from https://www.nhmrc.gov.au/guidelines-publications/cp64

Australian Institute of Health and Welfare. (2015, 3 19). *Admitted patient care 2013–14: Australian hospital statistics.* Retrieved 7 1, 2016, from http://www.aihw.gov.au/publication-detail/?id=60129550483

Bahin, F. F. (2016). Comparison of the histopathological effects of two. *Endoscopy , 48*, 117-122.

Bahin, F. F. (2016). Efficacy of viscous budesonide slurry for prevention. *Endoscopy , 48*, 71-74.

Burgess, N. G. (2016). Clinical and endoscopic predictors of cytological. *Gut , 65*, 437-446.

Cancer Council Australia. (2015). *Cancer Council Australia Surveillance Colonoscopy Guidelines Working Party*. Retrieved 7 1, 2016, from http://www.cancer.org.au/content/pdf/wiki/Algorithm_for_Colonoscopic_Surveillance_Intervals_-_IBD.pdf

Cancer Council Australia Surveillance Colonoscopy Guidelines. (2013). *colonoscopic surveillance intervals - following surgery for colorectal cancer.* Retrieved 7 1, 2016, from http://wiki.cancer.org.au/australiawiki/images/3/34/Algorithm_for_Colonoscopic_Surveillance_Intervals_-_Following_Surgery_for_Colorectal_Cancer.pdf

Cancer Council Australia Surveillance Colonoscopy Guidelines Working Party. (2015). *Colonoscopic surveillance intervals– inflammatory bowel disease.* Retrieved 7 1, 2016, from http://www.cancer.org.au/content/pdf/wiki/Algorithm_for_Colonoscopic_Surveillance_Intervals_-_IBD.pdf

Cancer Council Australia Surveillance Colonoscopy Guidelines Working Party. (2013). *Guidelines for colorectal cancer screening-family history.* Retrieved 7 1, 2016, from http://www.outpatientsouth.tas.gov.au/__data/assets/pdf_file/0007/192535/Screening_FHx_Algorithm_Nov_20131.pdf

Department of Health. (2016). Capsule Endoscopy for obscure gastrointestinal bleeding Rapid Review. Canberra: Internal Document.

Department of Health. (2016). Push Enteroscopy Rapid Review. Canberra: Internal Document.

Elshaug, A., Watt, A., Mundy, L., & Willis , C. (2012). Over 150 potentially low-value health care practices: an Australian study. *The Medical Journal of Australia* , 556-560.

Friedland et Al., S. (2014). Outcomes of repeat colonoscopy in patients with polyps referred for surgery without biopsy proven cancer. *Gastrointestinal Endoscopy , 79* (2), 101-107.

Gottumukkala, R. S. (2016). Outcome of EMR as an alternative to surgery in patients with complex colon polyps. *Gastrointestinal Endoscopy , 84* (2), 315-325.

Jayanna, M. e. (2016). Cost Analysis of Endoscopic Mucosal Resection vs Surgery. *Clinical Gastroenterology and Hepatology , 14*, 271-278.

Keswani, R. N. (unpublished). Adverse events after surgery for nonmalignant colon polyps are common and associated with increased length of stay and costs. *Gastrointestinal Endoscopy* .

Klein, A. e. (2016). Endoscopic submucosal dissection for early gastric cancer – applying the expanded resection criteria in a western tertiary center. *unpublished* .

Law et Al., R. (2016). Endoscopic resection is cost-effective compared with laparoscopic resection in the management of complex colon polyps: an economic analysis. *Gastrointestinal Endoscopy , 83* (6), 1248-1257.

Lee, E. Y., & Bourke, J. M. (2016). Endoscopic mucosal resection should be the first-line treatment for large laterally spreading colorectal lesions. *unpublished* .

Moss, A. (2014). From gastroenterologist to surgeon to gastroenterologist for management of large sessile colonic polyps: something new under the sun? *Gastrointestinal Endoscopy , 1* (79), 108-110.

National Institute for Health and Care Excellence (NICE UK). (2014). *Cut NHS waste through NICE's 'do not do' database*. Retrieved 7 22, 2016, from https://www.nice.org.uk/news/article/cut-nhs-waste-through-nice%E2%80%99s-%E2%80%98do-not-do%E2%80%99-database

NICE. (2016, n/a n/a). *Phototherapy for Psoriasis*. Retrieved from NICE: http://pathways.nice.org.uk/pathways/psoriasis#path=view%3A/pathways/psoriasis/phototherapy-for-psoriasis.xml&content=view-index

NPS Medicine Wise. (2016). *choosing wisely*. Retrieved 7 22, 2016, from http://www.choosingwisely.org.au/home

NPS MedicineWise. (2016). *Choosing Wisely Australia*. Retrieved 7 22, 2016, from http://www.choosingwisely.org.au/home

Raju, G. e. (n.d.). Outcome of Endoscopic Mucosal Resection As an Alternative to Surgery in Patients with Complex Colon Polyps. *not published* .

Royal Australian College of General Practitioners. (n.d.). *guidelines for preventive activities in general practice (the red book)*. Retrieved 7 1, 2016, from http://www.racgp.org.au/your-practice/guidelines/redbook/

12. Acronyms and Abbreviations

Term	Description
ACSQHC	Australian Commission on Safety and Quality in Health Care
APC	Argon Plasma Coagulation
CE	Capsule endoscopy
EMR	Endoscopic Mucosal Resection
ENT	Ear Nose and Throat
ERCP	Endoscopic Retrograde Cholangiopancreatography
EUS	Endoscopic Ultrasound
FOBT	Faecal occult blood test
GAVE	Gastric antral vascular ectasia
GESA	Gastroenterological Society of Australia
HPOS	Health Professionals Online System
MBS	Medicare Benefits Schedule
MSAC	Medical Services Advisory Committee
NHMRC	National Health and Medical Research Council
NICE UK	National Institute for Health and Care Excellence
PE	Push Enteroscopy
SES	Socioeconomic status
the Committee / GCC	Gastroenterology Clinical Committee
the Taskforce	Review Taskforce

13. Glossary

Term	Description
Department, The	Australian Government Department of Health
DHS	Australian Government Department of Human Services
GP	General practitioner
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 ranging from failing to adhere to particular item descriptors or rules, through to deliberate fraud.
Low-value care	The use of an intervention which evidence suggests confers no or very little benefit on patients, or that the risk of harm exceeds the likely benefit, or, more broadly, that the added costs of the intervention do not provide proportional added benefits.
MBS item	An administrative object listed in the MBS and used for the purposes of claiming and paying Medicare benefits, comprising an item number, service descriptor and supporting information, Schedule fee and Medicare benefits.
MBS service	The actual medical consultation, procedure, test to which the relevant MBS item refers.
MSAC	Medical Services Advisory Committee
Multiple operation rule	A rule governing the amount of Medicare benefit payable for multiple operations performed on a patient on the one occasion. In general, the fees for two or more operations are calculated by the following rule: Δ 100 per cent for the item with the greatest Schedule fee Δ plus 50 per cent for the item with the next greatest Schedule fee Δ plus 25 per cent for each other item.
Multiple services rules (diagnostic imaging)	A set of rules governing the amount of Medicare benefit payable for multiple diagnostic imaging services provided to a patient at the same attendance (same day). See MBS Explanatory Note DIJ for more information.
Obsolete services	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.
Pathology episode coning	An arrangement governing the amount of Medicare benefit payable for multiple pathology services performed in a single patient episode. When more than three pathology services are requested by a general practitioner in a patient episode, the benefits payable are equivalent to the sum of the benefits for the three items with the highest Schedule fees.

Term	Description
PBS	Pharmaceutical Benefits Scheme
PHCAG	Primary Health Care Advisory Group

Appendix A Full list of MBS items under review

Table A1: Group D1 – Miscellaneous Diagnostic Procedures and Investigations: Subgroup 7— Gastroenterology and colorectal

Item	Description
11800	Oesophageal motility test, manometric
11801	Clinical assessment of gastro-oesophageal reflux disease that involves 48-hour catheter-free wireless ambulatory oesophageal pH monitoring, including administration of the device and associated endoscopy procedure for placement, analysis and interpretation of the data and all attendances for providing the service, if: (a) a catheter-based ambulatory oesophageal pH monitoring: (i) has been attempted on the patient but failed due to clinical complications; or (ii) is not clinically appropriate for the patient due to anatomical reasons (nasopharyngeal anatomy) preventing the use of catheter-based pH monitoring; and (b) the service is performed by a specialist or consultant physician with endoscopic training that is recognised by the Conjoint Committee for the Recognition of Training in Gastrointestinal Endoscopy (Anaes.)
11810	Clinical assessment of gastro-oesophageal reflux disease involving 24-hour pH monitoring, including analysis, interpretation and report and including any associated consultation
11820	Capsule endoscopy to investigate an episode of obscure gastrointestinal bleeding, using a capsule endoscopy device (including administration of the capsule, associated endoscopy procedure if required for placement, imaging, image reading and interpretation, and all attendances for providing the service on the day the capsule is administered) if: (a) the patient to whom the service is provided: (i) has recurrent or persistent bleeding; and (ii) is anaemic or has active bleeding; and (b) an upper gastrointestinal endoscopy and a colonoscopy have been performed on the patient and have not identified the cause of the bleeding; and (c) the service has not been provided to the same patient on more than 2 occasions in the preceding 12 months; and (d) the service is performed by a specialist or consultant physician with endoscopic training that is recognised by the Conjoint Committee for the Recognition of Training in Gastrointestinal Endoscopy; and (e) the service is not associated with balloon enteroscopy
11823	Capsule endoscopy to conduct small bowel surveillance of a patient diagnosed with Peutz-Jeghers Syndrome, using a capsule endoscopy device approved by the Therapeutic Goods Administration (including administration of the capsule, imaging, image reading and interpretation, and all attendances for providing the service on the day the capsule is administered) if: (a) the service is performed by a specialist or consultant physician with endoscopic training that is recognised by the Conjoint Committee for the Recognition of Training in Gastrointestinal Endoscopy; and (b) the item is performed only once in any 2 year period; and

Item	Description
	(c) the service is not associated with balloon enteroscopy
11830	Diagnosis of abnormalities of the pelvic floor involving anal manometry or measurement of anorectal sensation or measurement of the rectosphincteric reflex

Table A2: Group T1 - Miscellaneous Therapeutic Procedures: Subgroup 6 - Gastroenterology

Item	Description
13500	**Removed in Round 1 -** Gastric hypothermia by closed circuit circulation of refrigerant in the absence of gastrointestinal haemorrhage
13503	**Removed in Round 1 –** Gastric hypothermia by closed circuit circulation of refrigerant in the absence of gastrointestinal haemorrhage

Table A3: Group T8 — Surgical operations: Subgroup 1 - General

Item	Description
30473	Oesophagoscopy (other than a service to which item 41816 or 41822 applies), gastroscopy, duodenoscopy or panendoscopy (one or more such procedures), with or without biopsy, other than a service associated with a service to which item 30476 or 30478 applies (Anaes.)
30475	Endoscopy with balloon dilatation of gastric or gastroduodenal stricture (Anaes.)
30476	Oesophagoscopy (other than a service to which item 41816 or 41822 applies), gastroscopy, duodenoscopy or panendoscopy (one or more such procedures), with endoscopic sclerosing injection or banding of oesophageal or gastric varices, other than a service associated with a service to which item 30473 or 30478 applies (Anaes.)
30478	Oesophagoscopy (other than a service to which item 41816, 41822 or 41825 applies), gastroscopy, duodenoscopy or panendoscopy (one or more such procedures), with one or more of the following endoscopic procedures—polypectomy, removal of foreign body, diathermy, heater probe or laser coagulation, or sclerosing injection of bleeding upper gastrointestinal lesions, other than a service associated with a service to which item 30473 or 30476 applies (Anaes.)
30479	Endoscopy with laser therapy or argon plasma coagulation, for the treatment of neoplasia, benign vascular lesions, strictures of the gastrointestinal tract, tumorous overgrowth through or over oesophageal stents, peptic ulcers, angiodysplasia, gastric antral vascular ectasia (GAVE) or post-polypectomy bleeding, one or more of (Anaes.)
30481	Percutaneous gastrostomy (initial procedure), including any associated imaging services (Anaes.)
30482	Percutaneous gastrostomy (repeat procedure), including any associated imaging services (Anaes.)
30483	Gastrostomy button, caecostomy antegrade enema device (chait etc.) or stomal indwelling device, non-endoscopic insertion of, or non-endoscopic replacement of, on a person 10 years of age or over (Anaes.)
30484	Endoscopic retrograde cholangio-pancreatography (Anaes.)
30485	Endoscopic sphincterotomy with or without extraction of stones from common bile duct (Anaes.)

Item	Description
30487	Small bowel intubation with biopsy, as an independent procedure (Anaes.)
30488	**Item referred to Diagnostic Imaging Clinical Committee** Small bowel intubation—as an independent procedure (Anaes.)
30490	Oesophageal prosthesis, insertion of, including endoscopy and dilatation (Anaes.)
30491	Bile duct, endoscopic stenting of (including endoscopy and dilatation) (Anaes.)
30492	Bile duct, percutaneous stenting of (including dilatation when performed), using interventional imaging techniques (H) (Anaes.)
30493	Biliary manometry (Anaes.)
30494	Endoscopic biliary dilatation (H) (Anaes.)
30495	**Item referred to Diagnostic Imaging Clinical Committee** Δ Percutaneous biliary dilatation for biliary stricture using interventional imaging techniques (H) (Anaes.)
30680	Balloon enteroscopy, examination of the small bowel (oral approach), with or without biopsy, without intraprocedural therapy, for diagnosis of patients with obscure gastrointestinal bleeding if the patient: (a) has recurrent or persistent bleeding; and (b) is anaemic or has active bleeding; and (c) has had an upper gastrointestinal endoscopy and a colonoscopy performed that did not identify the cause of the bleeding; not in association with another item in this Subgroup (other than item 30682 or 30686) (Anaes.)
30682	Balloon enteroscopy, examination of the small bowel (anal approach), with or without biopsy, without intraprocedural therapy, for diagnosis of patients with obscure gastrointestinal bleeding if the patient: (a) has recurrent or persistent bleeding; and (b) is anaemic or has active bleeding; and (c) has had an upper gastrointestinal endoscopy and a colonoscopy performed that did not identify the cause of the bleeding; not in association with another item in this Subgroup (other than item 30680 or 30684) (Anaes.)
30684	Balloon enteroscopy, examination of the small bowel (oral approach), with or without biopsy, with one or more of the following procedures—snare polypectomy, removal of foreign body, diathermy, heater probe, laser coagulation or argon plasma coagulation, for diagnosis and management of patients with obscure gastrointestinal bleeding if the patient: (a) has recurrent or persistent bleeding; and (b) is anaemic or has active bleeding; and (c) has had an upper gastrointestinal endoscopy and a colonoscopy performed that did not identify the cause of the bleeding;

Item	Description
	not in association with another item in this Subgroup (other than item 30682 or 30686) (Anaes.)
30686	Balloon enteroscopy, examination of the small bowel (anal approach), with or without biopsy, with one or more of the following procedures—snare polypectomy, removal of foreign body, diathermy, heater probe, laser coagulation or argon plasma coagulation, for diagnosis and management of patients with obscure gastrointestinal bleeding if the patient: (a) has recurrent or persistent bleeding; and (b) is anaemic or has active bleeding; and (c) has had an upper gastrointestinal endoscopy and a colonoscopy performed that did not identify the cause of the bleeding; not in association with another item in this Subgroup (other than item 30680 or 30684) (Anaes.)
30687	Endoscopy with radiofrequency ablation of mucosal metaplasia for the treatment of Barrett's Oesophagus in a single course of treatment, following diagnosis of high grade dysplasia confirmed by histological examination (Anaes.)
30688	Endoscopic ultrasound (endoscopy with ultrasound imaging), with or without biopsy, for the staging of one or more of oesophageal, gastric or pancreatic cancer, not in association with another item in this Subgroup and other than a service associated with the routine monitoring of chronic pancreatitis (Anaes.)
30690	Endoscopic ultrasound (endoscopy with ultrasound imaging), with or without biopsy, with fine needle aspiration (including aspiration of the locoregional lymph nodes if performed, for the staging of one or more of oesophageal, gastric or pancreatic cancer), not in association with another item in this Subgroup and other than a service associated with the routine monitoring of chronic pancreatitis (Anaes.)
30692	Endoscopic ultrasound (endoscopy with ultrasound imaging), with or without biopsy, for the diagnosis of one or more of pancreatic, biliary or gastric submucosal tumours, not in association with another item in this Subgroup and other than a service associated with the routine monitoring of chronic pancreatitis (Anaes.)
30694	Endoscopic ultrasound (endoscopy with ultrasound imaging), with or without biopsy, with fine needle aspiration for the diagnosis of one or more of pancreatic, biliary or gastric submucosal tumours, not in association with another item in this Subgroup and other than a service associated with the routine monitoring of chronic pancreatitis (Anaes.)
31456	Gastroscopy and insertion of nasogastric or nasoenteral feeding tube, if blind insertion of the feeding tube has failed or is inappropriate due to the patient's medical condition (H) (Anaes.)
31458	Gastroscopy and insertion of nasogastric or nasoenteral feeding tube if: (a) blind insertion of the feeding tube has failed or is inappropriate due to the patient's medical condition; and (b) the use of imaging intensification is clinically indicated (H) (Anaes.)

Table A4: Group T8 — Surgical operations: Subgroup 2 - Colorectal

Item	Description
32023	Endoscopic insertion of stent or stents for large bowel obstruction, stricture or stenosis, including colonoscopy and any image intensification, where the obstruction is due to: (a) a pre-diagnosed colorectal cancer, or cancer of an organ adjacent to the bowel; or (b) an unknown diagnosis (H) (Anaes.)
32072	Sigmoidoscopic examination (with rigid sigmoidoscope), with or without biopsy
32075	Sigmoidoscopic examination (with rigid sigmoidoscope), under general anaesthesia, with or without biopsy, other than a service associated with a service to which another item in this Group applies (Anaes.)
32078	**Removed in Round 1 –** Sigmoidoscopic examination with diathermy or resection of one or more polyps, if the time taken is less than or equal to 45 minutes (Anaes.)
32081	**Removed in Round 1 –** Sigmoidoscopic examination with diathermy or resection of one or more polyps, if the time taken is greater than 45 minutes (Anaes.)
32084	Flexible fibreoptic sigmoidoscopy or fibreoptic colonoscopy up to the hepatic flexure, with or without biopsy (Anaes.)
32087	Endoscopic examination of the colon up to the hepatic flexure by flexible fibreoptic sigmoidoscopy or fibreoptic colonoscopy for the removal of one or more polyps or the treatment of radiation proctitis, angiodysplasia or post-polypectomy bleeding by argon plasma coagulation, one or more of (Anaes.)
32090	Fibreoptic colonoscopy—examination of colon beyond the hepatic flexure with or without biopsy (Anaes.)
32093	Endoscopic examination of the colon beyond the hepatic flexure by fibreoptic colonoscopy for the removal of one or more polyps, or the treatment of radiation proctitis, angiodysplasia or post-polypectomy bleeding by argon plasma coagulation, one or more of (Anaes.)
32094	Endoscopic dilatation of colorectal strictures including colonoscopy (H) (Anaes.)
32095	Endoscopic examination of small bowel with flexible endoscope passed by stoma, with or without biopsies (Anaes.)

Table A5: Group T8 — Surgical operations: Subgroup 8 – Ears, Nose and Throat

Item	Description
41819	Dilatation of stricture of upper gastro-intestinal tract using bougie or balloon over endoscopically inserted guidewire, including endoscopy with flexible or rigid endoscope (Anaes.)
41820	Dilatation of stricture of upper gastro-intestinal tract using bougie or balloon over endoscopically inserted guidewire, including endoscopy with flexible or rigid endoscope, if the use of imaging intensification is clinically indicated (Anaes.)
41828	Oesophageal stricture, dilatation of, without oesophagoscopy (Anaes.)
41831	Oesophagus, endoscopic pneumatic dilatation of (Anaes.) (Assist.)
41832	Oesophagus, balloon dilatation of, using interventional imaging techniques (Anaes.)

Items not requiring amendment

The Committee advises that 29 items do not require any amendment as these items support clinically valuable services and no specific issues relating to their use have been identified. These items have been grouped into broad categories in the following table. This means that items are not necessarily ordered numerically.

In some cases the items specified as not requiring descriptor amendment may have a fee or co-claiming rules issue.

Table A6: Items related to Gastro-oesophageal reflux disease

Procedure	Item	Item Descriptor	Schedule Fee	Services 2014–15	Service change 2011–12 to 2014–15
Gastro-oesophageal reflux disease	**11800**	OESOPHAGEAL MOTILITY TEST, manometric	$174.45	5,150	7%
	11801	CLINICAL ASSESSMENT OF GASTRO-OESOPHAGEAL REFLUX DISEASE that involves 48 hour catheter-free wireless ambulatory oesophageal pH monitoring including administration of the device and associated endoscopy procedure for placement, analysis and interpretation of the data and all attendances for providing the service, if (i) has been attempted on the patient but failed due to clinical complications, or (ii)is not clinically appropriate for the patient due to anatomical reasons (nasopharyngeal anatomy) preventing the use of catheter-based pH monitoring; (a) a catheter-based	$263.00	0	n/a

Procedure	Item	Item Descriptor	Schedule Fee	Services 2014–15	Service change 2011–12 to 2014–15
		ambulatory oesophageal pH-monitoring: and (b) the services is performed by a specialist or consultant physician with endoscopic training that is recognised by the Conjoint Committee for the Recognition of Training in Gastrointestinal Endoscopy. Not in association with another item in Category 2, sub-group 7 (Anaes.)			
	11810	CLINICAL ASSESSMENT of GASTRO-OESOPHAGEAL REFLUX DISEASE involving 24 hour pH monitoring, including analysis, interpretation and report and including any associated consultation	$174.45	3,935	19%
Diagnosis of abnormalities of the pelvic floor	**11830**	DIAGNOSIS of ABNORMALITIES of the PELVIC FLOOR involving anal manometry or measurement of anorectal sensation or measurement of the rectosphincteric reflex	$186.80	5,141	7%
Capsule endoscopy	**11823**	Capsule endoscopy to conduct small bowel surveillance of a patient diagnosed with Peutz-Jeghers Syndrome, using a capsule endoscopy device approved by the Therapeutic Goods Administration (including administration of the capsule, imaging, image reading and interpretation, and all attendances for providing the service on the day the capsule is administered) if: (a) the service is performed by a specialist or consultant physician with endoscopic training that is recognised by the Conjoint Committee for the Recognition of Training in Gastrointestinal Endoscopy; and (b) the item is performed only once in any 2 year period; and (c) the service is not associated with balloon enteroscopy.	$2,039.20	62	59%
Oesophagoscopy and endoscopic	**30490**	OESOPHAGEAL PROSTHESIS, insertion of, including endoscopy and dilatation (Anaes.)	$526.40	529	0%

Procedure	Item	Item Descriptor	Schedule Fee	Services 2014–15	Service change 2011–12 to 2014–15
procedures on the Oesophagus	**30687**	ENDOSCOPY with RADIOFREQUENCY ABLATION of mucosal metaplasia for the treatment of Barrett's Oesophagus in a single course of treatment, following diagnosis of high grade dysplasia confirmed by histological examination (Anaes.)	$476.10	247	n/a
Dilatation of upper GI tract	**41828**	OESOPHAGEAL STRICTURE, dilatation of, without oesophagoscopy (Anaes.)	$52.20	21	11%
	41832	OESOPHAGUS, balloon dilatation of, using interventional imaging techniques (Anaes.)	$228.50	114	46%
Gastrostomy	**30481**	PERCUTANEOUS GASTROSTOMY (initial procedure), including any associated imaging services (Anaes.)	$357.00	776	-4%
	30482	PERCUTANEOUS GASTROSTOMY (repeat procedure), including any associated imaging services (Anaes.)	$253.85	587	27%
	30483	GASTROSTOMY BUTTON, CAECOSTOMY ANTEGRADE ENEMA DEVICE (CHAIT etc) or STOMAL INDWELLING DEVICE non-endoscopic insertion of, or non-endoscopic replacement of, on a person 10 years of age or over (Anaes.)	$177.05	483	-21%
Examinations and procedures on bile ducts/Pancreas	**30484**	ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY (Anaes.)	$364.90	6,924	9%
	30485	ENDOSCOPIC SPHINCTEROTOMY with or without extraction of stones from common bile duct (Anaes.)	$563.30	4,918	8%
	30491	BILE DUCT, ENDOSCOPIC STENTING OF (including endoscopy and dilatation) (Anaes.)	$555.35	3,312	21%
	30492	BILE DUCT, PERCUTANEOUS STENTING OF (including dilatation when performed), using interventional imaging techniques - but not including imaging (Anaes.)	$787.30	220	12%
	30494	ENDOSCOPIC BILIARY DILATATION (Anaes.)	$420.50	573	59%
	30495	PERCUTANEOUS BILIARY DILATATION for biliary stricture, using interventional imaging techniques - but not including imaging (Anaes.)	$787.30	73	20%
	31456	GASTROSCOPY and insertion of nasogastric or nasoenteral feeding tube, where blind	$245.55	412	110%

Procedure	Item	Item Descriptor	Schedule Fee	Services 2014–15	Service change 2011–12 to 2014–15
Insertion of nasogastric tube		insertion of the feeding tube has failed or is inappropriate due to the patient's medical condition (Anaes.)			
	31458	GASTROSCOPY and insertion of nasogastric or nasoenteral feeding tube, where blind insertion of the feeding tube has failed or is inappropriate due to the patient's medical condition, and where the use of imaging intensification is clinically indicated (Anaes.)	$294.65	114	54%
Examination of the bowel – colonoscopy and sigmoidoscopy	**32023**	Endoscopic insertion of stent or stents for large bowel obstruction, stricture or stenosis, including colonoscopy and any image intensification, where the obstruction is due to: a) a pre-diagnosed colorectal cancer, or cancer of an organ adjacent to the bowel; or b) an unknown diagnosis (Anaes.)	$555.35	70	n/a
	32072	SIGMOIDOSCOPIC EXAMINATION (with rigid sigmoidoscope), with or without biopsy	$47.85	22,488	-20%
	32075	SIGMOIDOSCOPIC EXAMINATION (with rigid sigmoidoscope), UNDER GENERAL ANAESTHESIA, with or without biopsy, not being a service associated with a service to which another item in this Group applies (Anaes.)	$75.05	225	0.4%
	32094	ENDOSCOPIC DILATATION OF COLORECTAL STRICTURES including colonoscopy (Anaes.)	$551.85	768	4%
	32095	ENDOSCOPIC EXAMINATION of SMALL BOWEL with flexible endoscope passed by stoma, with or without biopsies (Anaes.)	$127.80	272	9%

Source: Publicly available MBS Data (Department of Human Services website)

Appendix B Summary for Consumers

Gastroenterology Clinical Committee recommendations

This appendix describes the medical service, recommendations of the Clinical Experts and why the recommendation has been made.

Table B1: Recommendation – colonoscopy

Item	What it does	Committee Recommendation	What would be different	Why
32090 and 32093	1. A diagnostic procedure (32090) using an endoscope to visually examine the colon (with or without biopsy) 2. A therapeutic procedure (32093) using an endoscope to visually examine the colon to provide treatments or to remove polyps	1. Align MBS reimburse of items with approved clinical guidelines and algorithms 2. Restructure services to better describe clinical indications and intervals for repeat testing 3. Amend item to better define the extent of the examination 'to the caecum' 4. Amend the existing NBCSP items to align the examination requirements 'to the caecum' 5. Remove out-of-date terminology 'fibreoptic' and 'flexible'. 6. Place restrictions on claiming with other colonoscopy services (same day, same	1. Practitioners will be guided by the item descriptors and the approved clinical guidelines 2. Patient indications and conditions will be better described and they will not undergo unnecessary colonoscopy or too frequent testing. 3. Patients will benefit from this quality measure which will require a more comprehensive and complete examination to be performed 4. NBCSP patients will benefit from this quality measure which will require a more comprehensive and	1. To assist practitioner in determining the circumstances when these services are clinical appropriate. 2. The clinical circumstances for these service will be better defined 3. The clinical requirements for a complete and comprehensive examination will be better defined 4. The clinical requirements for a complete and comprehensive examination will be better defined for NBCSP patients 5. The items should reflect contemporary changes to practices and procedures 6. Patients would effectively pay twice for the same service if

Item	What it does	Committee Recommendation	What would be different	Why
		practitioner) during a single episode of anaesthesia 7. Create a new item for the treatment of conditions radiation proctitis, angiodysplasia or post-polypectomy bleeding and remove restrictions on the therapy APC for controlling bleeding	complete examination to be performed. 5. The updated wording will reflect contemporary clinical practice. 6. These services will not able to be billed with other colonoscopy services on the same day, same patient and practitioner unless under a separate sedation/anaesthesia. 7. A new item for the treatment of specified conditions will simplify the items.	other colonoscopy services were allowed to be billed together 7. Separating the specified treatments from the removal of polyp/lesion will simplify the intent of the item.

Table B2: Recommendation 2 – same day upper and lower gastrointestinal services endoscopy

Item	What it does	Committee Recommendation	What would be different	Why
30473, 32090, 32093	Endoscopic examination of the upper and lower gastrointestinal tract during the same episode of care	The Gastroenterological Society of Australia to consider the development of clinical practice guidelines on when it is appropriate for both services to be performed	Only clinically relevant services will be provided.	To assist practitioner in determining the clinical circumstances when both services are appropriate.

Table B3: Recommendation 3.1 – Capsule Endoscopy item amendments and Recommendation 3.2 – Capsule Endoscopy fee review

Item	What it does	Committee Recommendation	What would be different	Why
11820	Capsule endoscopy (CE) is used to diagnose obscure gastrointestinal bleeding. CE is a way to record images of the digestive tract for use in medicine. The capsule is the size and shape of a pill and contains a miniature camera which the patient swallows and images are taken of the gastrointestinal tract	1. Amend the item to better define the clinical conditions and indications for the service to ensure the intended patient group receives this service 2. Storage requirements for CE imaging to be provided in the explanatory notes to the item 3. A fee review by MSAC	1. The item will better target patients whose indications and conditions require this service. 2. Practitioners will be aware of storage requirements for imaging. 3. A fee review will determine if the item is appropriately priced	1. Iron deficiency anaemia (rather than just anaemia) better describes blood loss symptoms. Investigations for possible causes should be undertake and eliminated prior to performing CE. 2. Advice on storage requirements will support good record keeping for auditing purposes and continuity of care for patients. 3. It is important that the fee represents value for money for the patient and is not driving service volumes.

Table B4: Recommendation 4.1 – Endoscopic upper gastrointestinal services and Recommendation 4.2 – Push Enteroscopy

Item	What it does	Committee Recommendation	What would be different	Why
30473	A diagnostic procedure that uses a digital scope to visually examine the gastrointestinal tract	Stop the billing of this item with item 30479	This service will not be able to be claimed with another item that provides the same endoscopic procedure when performed as part of a therapeutic service.	Where endoscope is required as part of a therapeutic procedure, item 30473 should not be co-claimed. Patient may pay twice for the same service if these services were not restricted.
30476	A procedure that uses a digital scope to visually examine the gastrointestinal tract and provide treatment	Consolidate this service with item 30478	These services will be combined with item 30478 to create one general upper interventional item	Consolidate services to simplify the item structure for upper gastrointestinal endoscopy services and minimise confusion about which items should be billed by the practitioner
30478	A procedure that uses a digital scope to visually examine the gastrointestinal tract and provide treatment	1. Consolidate this service with item 30476 to form a general therapeutic service (without laser therapy). 2. Argon Plasma Coagulation (APC) a procedure to control bleeding in the gastrointestinal tract should be moved from item 30479 into this item. 3. The Committee recommends Push Enteroscopy (a digital scope to examine the small	1. The consolidation of items 30476 and 30478 will combine pathologies and treatments previously listed under item 30476. This change will not alter the fee or the intent of this item. 2. The use of APC under this item will benefit patients as the fee will be lower than currently under item 30479. 3. The addition of Push Enteroscopy will allow the	1. Need to simplify the item structure these services and minimise confusion about which items should be billed by the practitioner 2. APC is more appropriately provided under item 30478 (lower fee than item 30479) as it no more time consuming of the skills required than other forms of non -laser endoscopic interventions.

Item	What it does	Committee Recommendation	What would be different	Why
		bowel) currently performed under item 30487 for small bowel intubation to be included in this item 4. Stop billing of this item with item 30479	removal of lesions in the small bowel under this item 4. This service will not be able to be claimed with item 30479.	3. Push Enteroscopy is an upper gastrointestinal examination or procedure and it is appropriate for this service to be provided under this item 30478. 4. The patient could effectively pay twice for the same service if both 30478 and 30479 items were able to be billed together
30479	A procedure that uses a digital scope to visually examine the gastrointestinal tract and provide laser therapy to treat specified pathologies	1. Remove APC from this item and add it to the general therapeutic item 30478. 2. Stop billing of this item with item 30473 and 30478	1. APC will not be provided in this item. 2. This service cannot be claimed with item 30478	1. APC is more appropriately provided under item 30478 as it no more time consuming of the skills required than other forms of non-laser endoscopic interventions 2. Patients could effectively pay twice for the same service if both 30478 and 30479 were allowed to be billed together.

Table B5: Recommendation 5 – Endoscopic upper gastrointestinal stricture services

Item	What it does	Committee Recommendation	What would be different	Why
30475, 41819 and 41820	A group of procedures that use a digital scope and balloon to open up restrictions in the upper gastrointestinal tract	Consolidation of these services to allow any endoscopic technique to be performed for the throat through to the stomach and duodenum under item 30475The fee should be the fee for item 41819 which is higher than 30475 but lower than 41820	Services will be provided under a single item and patients will all receive the same rebate.	Need to simplify the item structure for these services and to minimise confusion about which items should be billed by the practitioner. Patient rebates for these services should be the same.
41831	Procedure that uses air or gas under pressure in a balloon that relieves the lower oesophageal muscle tension	Amend item to indicate that the service is specific to the treatment of achalasia (a type of narrowing)	The item will better target patients whose indications and conditions require this service	The clinical circumstances for this service will be better defined.

Table B6: Recommendation 6 – Sigmoidoscopy/Colonoscopy

Item	What it does	Committee Recommendation	What would be different	Why
32084	A diagnostic procedure using digital scope to visually examine the colon and can include biopsy	1. Amend item to better define the extent of the examination which 'has not reach the caecum' and remove out-of-date terminology. 2. Stop the billing of more than one colonoscopy service during the same episode of sedation/anaesthesia	1. Patients will benefit from this quality measure which will require a more comprehensive and complete examination to be performed. 2. These services will not able to be billed with other colonoscopy services on the same day, same patient and practitioner unless under a separate sedation/anaesthesia.	1. To better define the clinical requirements for a complete and comprehensive examination 2. Patients could effectively pay twice for the same service if other colonoscopy services were allowed to be billed together
32087	A therapeutic procedure using a digital scope to visually examine the colon and to provide treatment or remove polyps (small clump of cells that forms on the lining of the colon)	1. Amend item to better define the extent of the examination which 'has not reach the caecum' (a pouch that marks the beginning of the large intestine) and remove out-of-date terminology '. 2. Remove restrictive requirements that only APC can be used to control bleeding.	1. Patients will benefit from this quality measure which will require a more comprehensive and complete examination to be performed. 2. Practitioners will benefit with the removal of APC as they will be able to select a therapy that best suits the clinical indications of the patient.	1. The clinical requirements for a complete and comprehensive examination will be better defined. 2. Use of APC is too restrictive and other therapies should be available. 3. Patients could effectively pay twice for the same service if other colonoscopy services were allowed to be billed together

Item	What it does	Committee Recommendation	What would be different	Why
		3. Stop the billing of more than one colonoscopy service same patient, same practitioner during the same episode of sedation/anaesthesia	3. These services will not be able to be billed with other colonoscopy services on the same day, same patient and practitioner unless under a separate sedation/anaesthesia.	

Table B7: Recommendation 7 – Endoscopic Ultrasound (EUS)

Item	What it does	Committee Recommendation	What would be different	Why
30688 to 30694	A group of diagnostic services that use endoscopic ultrasound to assess the spread of cancer	Removal of current claiming restrictions on these services to allow other specified therapeutic procedures to be provided.	A patient having EUS staging for cancer will be able to a have certain other procedure performed at the same time, such as bile duct stenting if this is clinically indicated. Patients will benefit as this will eliminate the need for a second anaesthesia on another day.	The current claiming restrictions on EUS items means that patients, who requires therapeutic services identified by the EUS, are required to undergo a second sedation on another day to receive these services.

Table B8: Recommendation 8 – Balloon Enteroscopy

Item	What it does	Committee Recommendation	What would be different	Why
30680 to 30686	A group of diagnostic procedures used to assess the spread of cancer	An assessment by the Medical Services Advisory Committee(MSAC) to expand the conditions for these items to manage small bowel disease without anaemia or bleeding	The service will better target patients whose indications and conditions require these services. These patients will benefit as they will not be exposed to unnecessary other tests and procedures, including surgery, to manage their condition	Currently the items are restricted to patients who present with bleeding and anaemia. This significantly restricts the management of patients with small bowel disease without these symptoms.

Table B9: Recommendation 9: Endoscopic Mucosal Resection

Item	What it does	Committee Recommendation	What would be different	Why
New item	A procedure to remove very large polyps by using an internal digital scope	An assessment by MSAC to consider public funding for this service. The Gastroenterological Society of Australia to submit an application and request an expedited assessment by MSAC	Patients would not require surgery to remove these polyps which would be safer for the patient	EMR has widespread use in public hospitals but currently under the MBS the only approach for the removal of very large polyps is surgery.

Table B10: Recommendation 10.2: Obsolete items – second round

Item	What it does	Committee Recommendation	What would be different	Why
30487	Diagnostic procedure performed on the small bowel	To remove item 30487 from the MBS if Push Enteroscopy service is moved to the upper GI endoscopy item 30478	The service will no longer attract a MBS rebate	This item has been used for push enteroscopy services but if push enteroscopy is moved under the more appropriate upper GI endoscopic interventional items then item 30487 has no clinical purpose in contemporary practice.
30493	Diagnostic test that measures the pressure of the sphincter (a ring-shaped muscle that regulates the flow of bile and pancreatic secretions	To remove item 30493 from the MBS	The service will no longer attract a MBS rebate	The service is not supported by the published literature and has no place in contemporary clinical practice.

Note: Items 13500, 13503, 32078 and 32081 were removed from the MBS on 1 July 2016

Appendix C Rapid Review Report on Capsule Endoscopy

Capsule Endoscopy in the Investigation of OGIB – Updated evidence from 2008 onwards

Introduction

Video capsule endoscopy (VCE) was developed in 2000, and approved by the FDA for clinical use in 2001.[1] Since then, it has been increasingly utilized in the diagnosis of small bowel pathology, particularly obscure gastrointestinal bleeding (OGIB). Its utility has been attributed to its efficacy in terms of diagnostic yield, safety profile and patient tolerance. CE has also been shown to be well tolerated in the paediatric population, with a study by Dupont-Lucas et al[2] demonstrating higher diagnostic yield for polyposis syndromes (62 per cent), unresponsive Crohns disease (88 per cent), and graft-versus-host disease (88 per cent). CE is said to have a positive impact on patient management and outcomes, however the data is inconsistent, with variability in use of outcome variables and definitions. Mylonaki et al[3], in a study comparing CE to PE, found the former to not only detect more lesions, but to alter management in 71 per cent of subjects. Sidhu et al[4] by comparison, in a study focusing on CE, found an overall diagnostic yield to be 39 per cent (66 per cent in overt bleeding) with alteration in management in 26 per cent of patients.

There is insufficient data from which to estimate incidence of OGIB in the Australian population. International literature estimates the incidence of acute gastrointestinal bleeding in the US to be between 40 and 150 episodes per 100,000 persons with a mortality rate of 4–10 per cent.[5] Chronic occult gastrointestinal bleeding tends to occur in the setting of positive FOBT or iron deficiency anaemia. In the US, about 5 per cent of adult women and 2 per cent of adult men have iron deficiency anaemia. [5] Various health information sites[6] in Australia have specified a similar incidence range (50 – 150 per 100,000) for gastrointestinal haemorrhage, however it is unclear where these figures are derived from.

Diagnostic yield of capsule endoscopy

There are numerous studies evaluating diagnostic yield of CE, either alone or in comparison with other modalities. Table 1 is a summary of the main relevant studies since 2008.

Table C1: Studies 2008 onwards relating to diagnostic yield of capsule endoscopy

Study	Design	Subjects	Diagnostic Yield	Complications
Pandey et al 2016 [7], Mumbai	Prospective single centre observational	Δ 68 pts Δ 16-77 yo Δ OGIB	Δ Positive – 65% Δ Equivocal – 17.65% Δ Negative – 17.65%	Capsule retention - 2.94%

Study	Design	Subjects	Diagnostic Yield	Complications
Segarajasingam et al 2015[8]	Δ RCT Δ VCE vs PE	79 pts (40 VCE 39 PE)	Δ VCE – 72.5% Δ PE – 48.7%	Not specified
Aniwan et al 2014[9]	DBE vs VCE	30 pts; massive OGIB	Δ DBE – 87% Δ VCE 60%	Not specified
He et al 2014[10]	Randomized, single blinded, MSCT vs CE	127 pts with OGIB including overt and obscure	Δ MSCT – 47.56% Δ CE – 68.66%	Capsule retention - 1.47%
Katsinelos et al 2014[11]	Prospective multicenter	Δ 118 pts Δ median age 66	CE 66.9%	Not specified
Khan et al 2013[12]	Retrospective	122 pts 70% with obscure GI bleeding	Overall diagnostic yield 52%	Not specified
Leung et al 2012[13]	Prospective randomized CE vs angiography	60 pts with OGIB	Δ CE – 53.3% Δ Angio - 20%	Not specified
Shishido et al 2012[14]	Prospective CE vs DBE	118 pts with OGIB (mean age 62.9 +/- 18.4)	CE - 44.9% DBE – 53.4%	Not specified
Lecleire et al 2012[15]	Retrospective	5744 pts with severe OGIB who underwent emergency CE in 24-48 hrs following negative upper and lower endoscopy	CE – 67%	Not specified
Heo et al 2012[16]	Retrospective	30 pts with OGIB receiving CE after negative CT enterography	CE - 57%	Not specified
Cuyle et al [17]	Retrospective	120 pts with OGIB	CE – 47.5% No difference between overt and occult group Presence of CVS comorbidity was assoc with statistically significant increase in diagnostic yield	1 case capsule retention

Study	Design	Subjects	Diagnostic Yield	Complications
Calabrese et al 2013[18]	Retrospective review	346 pts with OGIB	CE - 59.5%	Capsule retention – 1.4%
Goenka et al 2011[19]	Retrospective review	385 pts with OGIB	CE – 74% some lesion detected 58% definitive cause of OGIB detected	Not specified
Qureshi et al 2010[20]	Prospective descriptive	28 pts with OGIB	CE – 64.28%	Capsule retention – 7.1%
Katsinelos et al 2011[21]	Prospective	63 pts with OGIB	CE - 44.44% (60% in overt bleeders vs 34.21% in occult)	Not specified
Teshima et al 2011[22]	Meta-analysis	10 eligible studies	Pooled diagnostic yield CE - 62% DBE – 56% DY of DBE after positive CE – 75%	Not specified
Van Turenhout et al 2010[23]	Retrospective review	240 pts with GI bleeding or IDA	CE - 49%	Not specified
Sidhu et al 2009[24]	Retrospective	427 pts	Diagnostic yield 50% with change in management in 30%	Not specified
Kameda et al 2008[25]	Prospective, single blind, CE vs DBE	32 pts with obscure GI bleeding	CE – 71.9% DBE – 65.6% Difference in diagnostic yield not significant	Not specified
Pasha et al 2008[26]	Meta-analysis	11 studies comparing DBE and CE	DBE and CE have comparable diagnostic yield in small bowel disease including OGIB	Not specified

Factors affecting diagnostic yield of CE

The yield of CE may be affected by multiple factors, including poor visualization of the mucosa, and the rate of gastric emptying and small bowel transit, which could result in exhaustion of capsule batteries prior to reaching the ileo-caecal valve.[27] Such incomplete examination occurs in 10 – 25 per cent of cases. Diagnostic yield is improved in overt bleeding[28], patients with haemoglobin < 10 g/dL, longer duration of bleeding (>6 months) and more than one episode of bleeding.[29] It has also been

shown that earlier timing of CE, particularly within 48 hours of overt bleeding, has the greatest potential for lesion detection. [19, 21, 30] Sidhu et al found that increasing age, anti-coagulation and liver co-morbidity were significant predictors of a positive diagnostic yield, whilst the presence of co-morbidity or diagnosis of angiodysplasia could predict a change in management. [24]

Recent guidelines

ESGE Clinical Guideline [31]

The European Society of Gastrointestinal Endoscopy (ESGE) recommends video capsule endoscopy as a first line investigation in patients with obscure gastrointestinal bleeding. The recommendation in patients with overt obscure GI bleeding is to perform the capsule endoscopy as soon as practicable after the bleeding episode, preferably within 14 days. In those with positive findings on capsule endoscopy, ESGE recommends device-assisted enteroscopy to confirm and potentially treat lesions. Figure 1 below is a flow chart taken from ESGE guidelines, which summarises recommendations in the investigation of OGIB.[31]

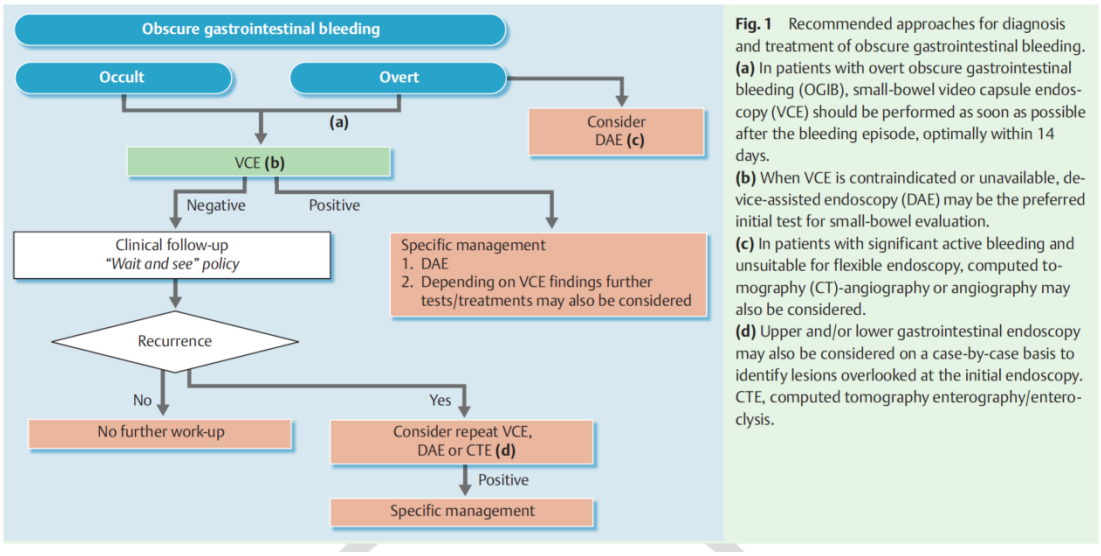


Fig. 1 Recommended approaches for diagnosis and treatment of obscure gastrointestinal bleeding. **(a)** In patients with overt obscure gastrointestinal bleeding (OGIB), small-bowel video capsule endoscopy (VCE) should be performed as soon as possible after the bleeding episode, optimally within 14 days. **(b)** When VCE is contraindicated or unavailable, device-assisted endoscopy (DAE) may be the preferred initial test for small-bowel evaluation. **(c)** In patients with significant active bleeding and unsuitable for flexible endoscopy, computed tomography (CT)-angiography or angiography may also be considered. **(d)** Upper and/or lower gastrointestinal endoscopy may also be considered on a case-by-case basis to identify lesions overlooked at the initial endoscopy. CTE, computed tomography enterography/enteroclysis.

Figure 1: Recommended approaches for diagnosis and treatment of obscure gastrointestinal bleeding

ACG Guidelines[32]

The American College of Gastroenterology recommends that:

- VCE should be considered first line procedure for small bowel evaluation after upper and lower GI sources have been excluded, including second look endoscopy when indicated
- VCE should be performed before deep enteroscopy to improve diagnostic yield

Figure 2 below is the ACG algorithm for suspected small bowel bleeding.[32]

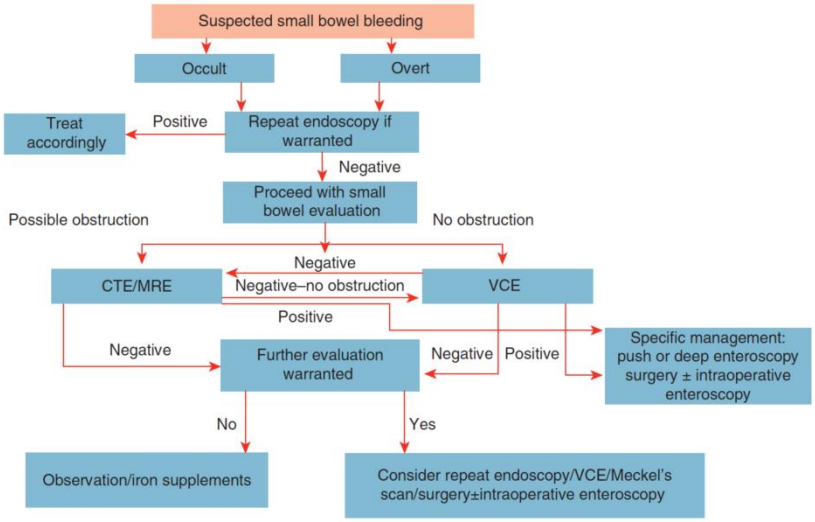


Figure 2: ACG algorithm for suspected small bowel bleeding [32]

British Society of Gastroenterology Guidelines [27]

BSG indications for capsule endoscopy:

- OGIB
- Small bowel Crohn's disease
- Assessment of coeliac disease
- Screening and surveillance for polyps in FAP

BSG recommendations relating to CE use in OGIB:

- Patients presenting with OGIB with negative gastroscopy and colonoscopy should undergo CE where there are no contraindications
- If high suspicion of bleeding from upper GI source, a second look endoscopy should take place prior to CE
- Patients with pathology/ sites of bleeding identified on CE should subsequently undergo either PE or DBE depending on location
- In patients with a negative CE and persistent OGIB, a second look CE may be considered. If this is negative they should be referred for DBE
- Where patient has obstructive symptoms, an alternative imaging modality should be considered prior to CE

Cost effectiveness

Given the timeframe and lack of Australian data, it was not possible to perform a cost-effectiveness analysis for the use of capsule endoscopy in the investigation of OGIB. Studies from overseas highlight the potential reduction in costs from use of CE, particularly when performed in settings with a large patient base and procedure numbers.[1] Whilst CE has definite advantages in terms of diagnostic yield, safety and ability to be performed in an outpatient setting, which may result in cost savings, it also has limitations in the lack of biopsy and therapeutic potential as well as the potential for technical barriers such as insufficient power and poor visualization.[1]

A cost-effectiveness analysis conducted by Gerson et al [33] in the US setting, compared CE (and 4 other modalities) to no therapy in management of OGIB. They found that initial DBE was the most cost effective approach, with other modalities being less effective and more expensive (with the exception of push enteroscopy which was less costly).[33]

The UK based BSG guidelines, suggest that in addition to its utility in the diagnostic pathway, CE is a cost-effective approach in its prevention of unnecessary cycles of investigations in patients. [27]

Broadly speaking, in Australia, when considering the cost-effectiveness of CE, factors one would take into account would include the underlying pathology and natural history of disease, the rate of complications such as capsule retention and subsequent management costs, and the infrastructure and time considerations involved.

Discussion

CE is recognized as having an established role in the assessment of patients with OGIB who have had negative gastroscopy and colonoscopy.[27] Studies have shown CE to have superior diagnostic yield compared with push enteroscopy in this population, with a meta-analysis by Triester et al reporting yields of 63 per cent versus 28 per cent from PE.[34] Diagnostic yield in CE has also been shown to be superior than barium follow-through and CT enteroclysis in OGIB patients.[35] Comparisons to DBE have been more inconsistent, with a meta-analysis by Pasha et al[26] finding DBE and CE to have comparable yields in diagnosis of small bowel disease (including OGIB).

It must be noted that whilst the evidence base for the diagnostic efficacy of CE is increasing, there is a lack of high-level studies, the majority being retrospective analyses with small sample sizes. There is also quite significant variability in diagnostic accuracy amongst studies, and no reference standard to which its diagnostic accuracy may be compared.[36] Intraoperative enteroscopy has been previously expounded as the ideal standard, however due to significant associated morbidity and mortality, it cannot be routinely recommended for diagnostic purposes in OGIB.[31] One of the few studies comparing CE to intraoperative enteroscopy (Hartmann et al[37]), found CE to have a sensitivity of 95 per cent and a specificity of 75 per cent. In terms of distinguishing between occult and overt sub-types of OGIB, there is insufficient data available, resulting in the reporting of diagnostic yield as an overall value. [31]

Whilst it is apparent that usage of CE in investigation of OGIB has increased dramatically over the past decade, the precise reasons for this are not clear. Presumably, contributing factors would include the increasing evidence base as to diagnostic yield and subsequent change in guidelines recommending CE as first-line (after negative upper and lower endoscopies) in investigation of OGIB.

References

1. Li X, Shen J, Li Y, Tang C, Huang L, Li C, et al. Capsule endoscopy in diagnosis of small bowel diseases: a health technology assessment JEBM. 2014;7:84-102.
2. Dupont-Lucas C, Bellaiche, Mouterde O, Bernard O, Besnard M, Campeotto F, et al. Capsule endoscopy in children: which are the best indications. Arch Pediatr. 2010;17(9):1264-72.
3. Mylonaki M, Fritscher-Ravens A, Swain P. Wireless capsule endoscopy: a comparison with push enteroscopy in patients with gastroscopy and colonoscopy negative gastrointestinal bleeding. Gut. 2003;52(8):1122-6.
4. Sidhu R, Sanders D, Kapur K, Hurlstone D, McAlindon M. Capsule endoscopy changes patient management in routine clinical practice. Dig Dis Sci. 2007;52(5):1382-6.
5. Kim B, Li B, Engel A, Samra J, Clarke S, Norton I, et al. Diagnosis of gastrointestinal bleeding: A practical guide for clinicians World J Gastroenterol Pathophysiol. 2014;5(4):467-78.
6. ECI. Upper GI bleeding: ACI; 2015. Available from: http://www.ecinsw.com.au/ugi-bleeds.
7. Pandey V, Ingle M, Pandav N, Parikh P, Patel J, Phadke A, et al. The role of casule endoscopy in etiological diagnosis and management of obscure gastrointestinal bleeding. Intest Res. 2016;14(1):69-74.
8. Segarajasingam D, Hanley S, Barkun A, Waschke K, Burtin P, Parent J, et al. Randomized controlled trial comparing outcomes of video capsule endoscoy with push enteroscopy in obscure gastrointestinal bleeding. CAn J Gastroenterol Hepatol. 2015;29(2):85-90.
9. Aniwan S, Viriyautsahakul V, Angsuwatcharakon P, Kongkam P, Treeprasertsuk S, Rerknimitr R, et al. Comparison of urgent video capsule endoscopy and urgent double-balloon endoscopy in massive obscure gastrointestinal bleeding. Hepatogastroenterology. 2014;61(135):1990-4.
10. He B, Gong S, Hu C, Fan J, Qian J, Huang S, et al. Obscure gastrointestinal bleeding: diagnostic performance of 64-section multiphase CT enterography compared with capsule endoscopy. Br J Radiol. 2014;87(1043).
11. Katsinelos P, Lazaraki G, Gkagkalis A, Gatopolou A, Patsavela S, Varitimiadis K, et al. The role of capsule endoscopy in the evaluation and treatment of obscure-overt gastrointestinal bleeding during daily clinical practice: a prospective multicenter study. Scand J Gastroenterol. 2014;49(7):862-70.
12. Khan M, Johnston M, Cunliffe R, Claydon A. The role of capsule endoscopy in small bowel pathology: a review of 122 cases. NZ Med J. 2013;126(1369):16-26.
13. Leung W, Ho S, Suen B, Lai L, Yu S, Ng E, et al. Capsule endoscopy or angiography in patients with acute overt obscure gastrointestinal bleeding: a prospective randomized study with long-term follow-up. Am J Gastroenterol. 2012;107(9):1370-6.
14. Shishido T, Oka S, Tanaka S, Aoyama T, Watari I, Imagawa H, et al. Diagnostic yield of capsule endoscopy vs double-balloon endoscopy for patients who have undergone total enteroscopy with obscure gastrointestinal bleeding. Hepatogastroenterology. 2012;59(116):955-9.
15. Lecleire S, Iwanicki-Caron I, Di-Fiore A, Elie C, Alhameedi R, Ramirez S, et al. Yield and impact of emergency capsule enteroscopy in severe obscure-overt gastrointestinal bleeding. Endoscopy. 2012;44(4):337-42.
16. Heo H, Park C, Lim J, Lee J, Kim B, Cheon J, et al. The role of capsule endoscopy after negative CT enterography in patients with obscure gastrointestinal bleeding. Eur Radiol. 2012;22(6):1159-66.
17. Cuyle P, Schoofs N, Bossuyt P, Moons V, Van Olmen G, Hiele M, et al. Single-centre experience on use of videocapsule endoscopy for obscure gastrointestinal bleeding in 120 consecutive patients. Acta Gastroenterol Belg. 2011;74(3):400-6.
18. Calabrese C, Liguori G, Gionchetti P, Rizzello F, Laureti S, Di Simone M, et al. Obscure gastrointestinal bleeding: single centre experience of capsule endoscopy. Intern Emerg Med. 2013;8(8):681-7.
19. Goenka M, Majumder S, Kumar S, Sethy P, Goenka U. Single center experience of capsule endoscopy in patients with obscure gastrointestinal bleeding. World J Gastroenterol. 2011;17(6):774-8.
20. Qureshi S, Ghazanfar S, Dawood A, Zubair M, Leghari A, Niaz S, et al. An experience of capsule endoscopy from a tertiary care hospital in Pakistan. J Pak Med Assoc. 2010;60(12):1001-5.
21. Katsinelos P, Chatzimavroudis G, Terzoudis S, Patsis I, Fasoulas K, Katsinelos T, et al. Diagnostic yield and clinical impact of capsule endoscopy in obscure gastrointestinal bleeding during routine clinical practice: a single-center experience. Med Princ Pract. 2011;20(1):60-5.
22. Teshima C, Kuipers E, van Zanten S, Mensink P. Double balloon enteroscopy and capsule endoscopy for obscure gastrointestinal bleeding: an updated meta-analysis. J Gastroenterol Hepatol. 2011;26(5):796-801.

23. van Turenhout S, Jacobs M, van Weyenberg S, Herdes E, Stam F, Mulder C, et al. Diagnostic yield of capsule endoscopy in a tertiary hospital in patients with obscure gastrointestinal bleeding. J Gastrointestin Liver Dis. 2010;19(2):141-5.
24. Sidhu R, Sanders D, Kapur K, Leeds J, McAlindon M. Factors predicting the diagnostic yield and intervention in obscure gastrointestinal bleeding investigated using capsule endoscopy. J Gastroenterol Liver Dis. 2009;18(3):273-8.
25. Kameda N, Higuchi K, Shiba M, Machida H, Okazaki H, Yamagami H, et al. A prospective, single-blind trial comparing wireless capsule endoscopy and double-balloon enteroscopy in patients with obscure gastrointestinal bleeding. J Gastroenterol. 2008;43(6):434-40.
26. Pasha S, Leighton J, Das A, Harrison M, Decker G, Fleischer D, et al. Double-balloon enteroscopy and capsule endoscopy have comparable diagnostic yield in small-bowel disease: a meta-analysis. Clin Gastroenterol Hepatol. 2008;6(6):671-6.
27. Sidhu R, Sanders D, Morris A, McAlindon M. Guidelines on small bowel enteroscopy and capsule endoscopy in adults Gut. 2008;57:125-36.
28. Esaki M, Matsumoto T, Yada S, Yanaru-Fujisawa R, Kudo T, Yanai S, et al. Factors associated with the clinical impact of capsule endoscopy in patients with overt obscure gastrointestinal bleeding. Dig Dis Sci. 2010;55(8):2294-301.
29. Pasha S, Hara A, Leighton J. Diagnostic Evaluation and Management of Obscure Gastrointestinal Bleeding: A Changing Paradigm. Gastroenterol Hepatol. 2009;5(12):839-50.
30. Yamada A, Watabe H, Kobayashi Y, Yoshida H, Koike K. Timing of capsule endoscopy influences the diagnosis and outcome in obscure-overt gastrointestinal bleeding Hepatogastroenterology. 2012;59(115):676-9.
31. Pennazio M, Spada C, Eliakim R, Keuchel M, May A, Mulder C, et al. Small-bowel capsule endoscopy and device-assisted enteroscopy for diagnosis and treatment of small-bowel disorders: European Society of Gastrointestinal Endoscopy (ESGE) Clinical Guideline. Endoscopy. 2015;47:352-76.
32. Gerson L, FIdler J, Cave D, Leighton J. ACG Clinical Guideline: Diagnosis and Management of Small Bowel Bleeding. Am J Gastroenterol. 2015;110:1265-87.
33. Gerson L, Kamal A. Cost-effectiveness analysis of management strategies for obscure GI bleeding. Gastrointestinal Endoscopy. 2008;68(5):920-36.
34. Triester S, Leighton J, Leontiadis G, Fleischer D, Hara A, Heigh R, et al. A meta-analysis of the yield of capsule endoscopy compared to other diagnostic modalities in patients with obscure gastrointestinal bleeding. Am J Gastroenterol. 2005;100(11):2407-18.
35. Marmo R, Rotondano G, Piscopos R, Bianco M, Cipoletta L. Meta-analysis: capsule enteroscopy vs conventional modalities in diagnosis of small bowel diseases Aliment Pharmacol Ther. 2005;22(7):595-604.
36. Ontario HQ. Capsule Endoscopy in the Assessment of Obscure Gastrointestinal Bleeding: An Evidence-Based Analysis. 2015.
37. Hartmann D, Schmidt H, Bolz G. A prospective two-center study comparing wireless capsule endoscopy with intraoperative enteroscopy in patients with obscure GI bleeding. Gastrointestinal Endoscopy. 2005;61(7):826-32.

Appendix D Rapid Review Report on Push Enteroscopy

Push Enteroscopy – Summary of evidence

Summary

- Push enteroscopy (PE) allows limited evaluation of the small bowel, particularly the proximal jejunum.
- Its main indication for use has been in the investigation of gastrointestinal bleeding where the source was unable to be identified on gastroscopy or colonoscopy, or where a proximal lesion is suspected.
- Reported diagnostic yields of PE varies between 3 and 70%
- Push enteroscopy has been found to be safe and well tolerated with positive results in terms of patient management and outcomes
- Advantages of PE include its potential use in both diagnosis and therapy, reduction in patient discomfort and required sedation (compared with other deep enteroscopic procedures), and the potential reduction in health care costs.
- Disadvantages include its poor sensitivity (compared with other investigations), relative patient discomfort and potential for complications (compared with capsule endoscopy)

Introduction

Push enteroscopy (PE) is an extended upper endoscopy, performed with a specially designed enteroscope (with or without an overtube) or a colonoscope (without an overtube).[1] It enables a limited evaluation of the small bowel, approximately 50-100 cm distal to the ligament of Treitz,[2] but permits tissue sampling and endoscopic treatments of the proximal jejunum.[3] The use of an overtube may allow for deeper small bowel intubation up to 150 cm, however its use does not appear to result in any improvement in diagnostic yield, [1] and can be associated with complications such as pharyngeal and Mallory-Weiss tears, gastric mucosal avulsion and acute pancreatitis due to papillary trauma.[4]

Push enteroscopy has been utilized in the investigation of occult GI bleeding, abnormal radiographic findings, chronic diarrhoea and malabsorption, as well as in screening of polyposis, staging of inflammatory bowel disease and in non-specific chronic abdominal pain. [5] Its main indication, however, remains in the investigation of gastrointestinal bleeding, the cause of which has not been identified on endoscopy or colonoscopy[6].

The preponderance of evidence relating to the efficacy of push enteroscopy uses capsule endoscopy as the main comparator and OGIB as the main indication for investigation. There is limited discussion as to its therapeutic utility, except to note the potential for thermocoagulation or administration of other treatment where suspected lesions have been identified.

Diagnostic Yield

A 2005 meta-analysis compared diagnostic yield of capsule endoscopy to push enteroscopy amongst other modalities.[7] The diagnostic yield was found to be 56 per cent and 26 per cent respectively for clinically significant findings.[7] Yield for vascular lesions was 36 per cent for capsule endoscopy versus

20 per cent for push enteroscopy and for inflammatory lesions, 11 per cent and 2 per cent respectively. There was no significant difference between the two procedures in terms of yield for tumours.[7]

De Leusse et al conducted a randomized prospective controlled trial in 2007[8], where patients with obscure gastrointestinal bleeding were randomly allocated to either capsule endoscopy (CE) or push enteroscopy (PE) as first line investigation. A definitive source of bleeding was identified in 50% of those undertaking CE first and 24 per cent of those utilising PE as first line investigation. PE missed significantly more lesions than CE (26 per cent vs 8 per cent), though the two strategies (CE then PE or vice versa) were not significantly different in terms of diagnostic yield (58 per cent and 50 per cent respectively). The higher sensitivity of CE in detection of lesions causing OGIB, led to the conclusion that CE rather than PE was the appropriate first line investigation, particularly when considering patient discomfort and potential health care costs.[8]

An Australian study, undertaken at The Royal Adelaide Hospital utilized push enteroscopy in the evaluation of 55 patients with obscure gastrointestinal bleeding where prior gastroscopy and/or colonoscopy had not determined a cause.[4] Diagnostic yield of push enteroscopy in this study was 69 per cent, 40 per cent of which were lesions within the reach of standard endoscopy.[4] Push enteroscopy was found to have altered management in 75 per cent of patients, with two thirds of patients having a positive outcome on long term follow up, in terms of reduction in bleeding, transfusion requirements and resolution of anaemia.[4]

As indicated above, the diagnostic yield of PE varies considerably between studies and has been reported as anywhere between 3 and 70%.[1] This variation may be attributable to differences in indication for investigation, location and type of lesion, and factors relating to study methodology.

Therapeutic utility

One proposed advantage of push enteroscopy is that it may be used for both diagnostic and therapeutic purposes. Therapeutic indications for PE include placement of jejunal feeding tubes, polypectomy and thermocoagulation of angiodysplastic lesions. [9] Unfortunately, high-level evidence is lacking in terms of assessing the therapeutic efficacy of push enteroscopy particularly in comparison to other endoscopic therapies.

A 2015 systematic review by Romagnuolo et al[10] summarized the evidence relating to re-bleeding rates following therapeutic endoscopy (including push enteroscopy). The authors reported 6 studies involving PE, with highly variable rates of re-bleeding, ranging from 0 – 66 per cent.[10] The studies had differing (or inadequate) definitions of re-bleeding, with a variable case-mix. The authors suggested that the assessment of therapeutic efficacy by reference to re-bleeding rates is misleading, given variability of lesions and therefore response to intervention. [10] They found insufficient data to support a reduction in re-bleeding rate from therapeutic endoscopy, and surmised that even if there were such reduction, the NNT would be significant.[10]

Clinical Guidelines

I was unable to locate any official Australian guidelines regarding the use of push enteroscopy, although the literature suggests that push enteroscopy (or other deep enteroscopy) only be considered when upper endoscopy, colonoscopy and capsule endoscopy have failed to identify a source of bleeding.[11]

European Society of Gastrointestinal Endoscopy (ESGE) Clinical Guideline [3]

- *Obscure Gastrointestinal Bleeding (OGIB)*- ESGE recommends against the use of push enteroscopy as first line in the investigation of obscure GI bleeding, due to low diagnostic yield compared with capsule endoscopy.
- The diagnostic yield of PE and device-assisted enteroscopy appear to be comparable when only considering proximal small bowel lesions (whilst in a comparison of overall diagnostic yield, device-assisted enteroscopy has been found to be superior). PE is however, less challenging in terms of requirements for sedation, examination and x-ray exposure.
- Although studies have evaluated the diagnostic yield of PE, capsule endoscopy and other investigations, there is insufficient evidence as to their impact on clinical outcomes including cessation of bleeding, resolution of anaemia, mortality, number of endoscopic procedures, hospitalization rate and blood transfusions.
- *Iron deficiency Anaemia (IDA)* – There is an absence of high level evidence evaluating the diagnostic yield of PE specifically in IDA, however, given the numbers of IDA patients included in studies focusing on OGIB, the authors have concluded the yield to be comparable (between 30 per cent and 70 per cent).
- *Crohns disease* – PE may provide direct endoscopic assessment and biopsies for histopathology, particularly where prior investigations have suggested a lesion in the proximal bowel
- *Small bowel tumours* – data is usually derived from larger series, and have shown no significant differences in diagnostic yield between PE and VCE. PE could therefore be useful in work up of small bowel tumours located in the proximal jejunum.

UK guidelines

The British Society of Gastroenterology developed guidelines[6] on small bowel enteroscopy and capsule endoscopy that outlined the following indications for use of push enteroscopy:

a) Diagnostic

- obscure gastrointestinal bleeding
    - where initial gastroscopy and colonoscopy have failed to detect the source of bleeding
- malabsorption and unexplained diarrhoea
    - Consider PE to obtain jejunal biopsies in patients suspected of malabsorption with positive anti-endomysial antibody and non-diagnostic duodenal biopsies.
- exploration of radiographic abnormalities of the proximal small bowel
    - PE is useful in investigation of proximal small bowel abnormalities detected by radiology
- Investigation of small bowel tumours
    - PE offers the opportunity of taking biopsies when lesion has been identified (as long as lesion is within reach of enteroscope)

b) Therapeutic

- Thermocoagulation of bleeding lesions

    - PE may be used in thermocoagulation of angioectasias (most common cause of bleeding in patients over 50)
- Placement of jejunostomy tubes
    - PE is method of choice for endoscopically placed feeding jejunostomy
- Stricture dilatation[12]
- Polypectomy[12]
- ERCP following Rouxen-Y reconstruction[12]

c) Surveillance

- Polyposis syndromes
    - PE may be used in endoscopic screening of FAP patients to identify high risk individuals.

ACG Clinical Guideline: Diagnosis and Management of Small Bowel Bleeding[1]

- VCE should be first line procedure for small bowel investigation
- PE can be performed as a second look examination in evaluation of suspected small bowel bleeding
- Due to lower detection rate of lesions in duodenum and proximal jejunum, PE should be performed if proximal lesions suspected

Conclusion

From the available evidence, it appears that whilst push enteroscopy may have a place in the diagnosis and possible treatment of lesions in the proximal small bowel, it is by no means the suggested first line procedure in the investigation of OGIB or other small bowel pathology. It may have a place in confirming diagnosis of lesions in the proximal small bowel, with some potential therapeutic applications, and may be useful where capsule endoscopy is impractical or unavailable. The general consensus in the literature seems to be that its use be at the discretion of the treating team having taken into account relevant patient, diagnostic and practical considerations.

References

1. Gerson L, Fidler J, Cave D, Leighton J. ACG Clinical Guideline: Diagnosis and Management of Small Bowel Bleeding American Journal of Gastroenterology. 2015;110:1265-87.
2. Pasha S, Hara A, Leighton J. Diagnostic Evaluation and Management of Obscure Gastrointestinal Bleeding: A Changing Paradigm. Gastroenterology & Hepatology. 2009;5(12):839 - 50.
3. Pennazio M, Spada C, Eliakim R, Keuchel M, May A, Mulder C, et al. Small-bowel capsule endoscopy and device-assisted enteroscopy for the diagnosis and treatment of small-bowel disorders : Clinical Guideline Endoscopy 2015;47:352-76.
4. Nguyen N, Rayner C, Schoeman M. Push enteroscopy alters management in a majority of patients with obscure gastrointestinal bleeding. Journal of Gastroenterology and Hepatology 2005;20:716-21.
5. Rodriguez B, Moyano C, Castro R, Alvarez A, Hernandez M, Delgado D, et al. Diagnostic yield of 335 push video-enteroscopies Revista Espanola de Enfermedades Digestivas (Madrid). 2006;98(2):82-92.
6. Sidhu R, Sanders D, Morris A, McAlindon M. Guidelines on small bowel enteroscopy and capsule endoscopy in adults Gut. 2008;57:125-36.
7. Triester S, Leighton J, Grigoris L, Fleischer D, Hara A, Heigh R, et al. A Meta-Analysis of the Yield of Capsule Endoscopy Compared to Other Diagnostic Modalities in Patients with Obscure Gastrointestinal Bleeding. American Journal of Gastroenterology. 2005;100:2407-18
8. De Leusse A, Vahedi K, Edery J, Tiah D, Fery-Lemonnier E, Cellier C, et al. Capsule Endoscopy or Push Enteroscopy for First-Line Exploration of Obscure Gastrointestinal Bleeding. Gastroenterology 2007;132:855-62.
9. Davies G, Benson M, Gertner D, Van Someren R, Rampton D, Swain C. Diagnostic and therapeutic push type enteroscopy in clinical use Gut. 1995;37:346-52.
10. Romagnuolo J, Brock A, Ranney N. Is Endoscopic Therapy Effective for Angioectasia in Obscure Gastrointestinal Bleeding? A Systematic Review of the Literature Journal of Clinical Gastroenterology 2015;49(10):823-30.
11. Kim B, Li B, Enfel A, Samra J, Clarke S, Norton I, et al. Diagnosis of gastrointestinal bleedingL A practical guide for clinicians World Journal of Gastrontestinal Pathophysiology. 2014;5(4):467-78.
12. O'Mahony S, Morris A, Straiton M, Murray L, MacKenzie J. Push enteroscopy in the investigation of small-intestinal disease. Q J Med 1996;89:685-90.

Addendum to the Report from the Gastroenterology Clinical Committee

A.1 Public Consultation

The Gastroenterology Clinical Committee report was released for public consultation on 9 September 2016 for four weeks.

A.2 Gastroenterology Clinical Committee review of public consultation submissions

The Committee considered the feedback from the public consultation. The Committee noted the main theme of the public feedback was around the proposed colonoscopy changes under Recommendation 1. These included:

- Issue of reimbursement should be independent of approved guidelines
- Guidelines change frequently and the MBS will not keep pace.
- Current guidelines do not cover all subtleties and linking these to the items ignores clinical judgement.
- Proposed items are complicated and there will be additional administrative costs without appropriate reimbursement.
- Reliable past history on colonoscopy and results is often difficult to obtain - open access endoscopy environments will be impacted by this requirement.

The Committee agreed that based on the feedback the proposed colonoscopy items should be road-tested by practitioners using actual patients and actual case scenarios.

The results were considered by the Committee. The Committee concluded that while testing was limited (107 patients involving 4 clinical environments) the results were mainly positive showing the majority of patients were able to be assigned an item. A small number of patients (4) did not meet the requirements of the approved clinical guidelines and therefore could not be assigned an item.

Based on these results the Committee recommends an education campaign be conducted on the use of the approved guidelines and a communication campaign be developed to introduce the items well in advance of implementation to enable administrative practises and procedures to be updated. The Committee also recommends a structured process to review the performance of the items be implemented to inform any further modifications required.

The Committee made minor amendments to Recommendation 1. The Committee also made minor amendments to Recommendations 2, 3.1, 6, 7 and 9.

A.3 Amendments to Recommendations

The Committee considered the feedback from the public consultation and the road testing of the colonoscopy changes and agreed to the following amendments to recommendations:

<u>Recommendation 1</u>

- Amend draft item descriptors A2 and B3 to remove ‘anaemia’
- Amend ‘to the caecum’ requirements to exclude patients with obstructed right-sided tumours

- Δ Amend draft item descriptor B1 to introduce co-claiming restrictions with item 32212 to prevent and extra item being claimed if formalin is used.

Recommendation 2

- Δ All relevant stakeholder groups are to be consulted on the development of clinical guidelines and standards for the appropriate same day use of upper and lower endoscopy (not just the Gastroenterological Society of Australia)

Recommendation 3.1

- Δ Amend draft item descriptor 11820 to remove the requirement for a duodenal biopsy

Recommendation 6

- Δ Amend 'which does not reach the caecum' requirements to exclude patients with obstructed right-sided tumours

Recommendation 7

- Δ Amend restrictions to include Item 30491 (biliary stenting) for same day co-claiming with EUS items 30688, 30690, 30692 and 30694.

Recommendation 9

- Δ All relevant stakeholder groups are to be consulted on the development of an MSAC application for the public funding of Endoscopic Mucosal Resection.