



MBS Review Advisory Committee
Electrocardiogram Working Group

**Electrocardiogram
Post-implementation
Review**

**FINAL
REPORT**

July 2024

IMPORTANT NOTES

1. This report does not constitute the final position on these items, which is subject to:
 - consideration by the Minister for Health and Aged Care, and
 - the Government.
2. Following consultation with stakeholders, the working group developed the views and recommendations in this report for consideration by the Medicare Benefits Schedule Review Advisory Committee (MRAC).
3. Should MRAC have any eliminations, amendments or commentary from the report presented by the working group, they will be captured in boxed comments in the body of the report, as follows:

[Working Group] Recommendation [#] – MRAC advice and rationale

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Summary

This is the second post-implementation review of the 1 August 2020 changes made to Medicare Benefits Schedule (MBS) items for electrocardiogram (ECG) services. Changes were first made to MBS items for 12-lead ECG services on 1 August 2020. These involved the removal of 3 MBS items and the inclusion of 4 new MBS items (updated MBS items for trace and report, report only and trace only, and a new MBS item for trace and clinical note), as well as restrictions on who (general practitioners [GPs] or specialists and consultant physicians) could claim each MBS item. These changes were made to improve quality of care and to ensure that ECGs are performed only when clinically necessary, as aligned with best practice.

The first review of the 2020 changes to ECG MBS items took place from March 2021 to January 2022. When this review began, it was already clear that there had been a reduction in the number of ECGs performed following the 2020 changes. However, the review was unable to determine how much of the service decline could be attributed to the MBS item changes and how much was a result of other factors, notably the COVID-19 pandemic and its impact on face-to-face consultations and the increased use of telehealth. At the conclusion of the first review, the then Minister for Health, the Hon Greg Hunt, requested that the MBS Review Advisory Committee (the committee) undertake a further review of the changes once an additional 12 months of data were available. The Electrocardiogram Working Group (the working group) was established in 2023 to undertake this further review.

Through its deliberations, the working group noted several limitations of MBS data that mean it is not possible to perform further statistical analyses to try to determine correlations between the reductions in ECG services, the changes to MBS items and the effects of the COVID-19 pandemic; how these differed by rurality; and how they were linked to clinical outcomes. These limitations include privacy considerations, data silos, and the types of data that are measured through the MBS.

Furthermore, these limitations mean that it is not possible to distinguish between ECGs performed on symptomatic patients and ECGs performed as part of the workup for another procedure. While it is known that the number of emergency department (ED) presentations for chest pain increased during the COVID-19 pandemic, it is not possible to determine how many ECGs are performed in EDs, and therefore, whether the MBS item changes have resulted in a shift of service provision from GPs to the ED. It is also not possible to determine if the increased number of ED presentations with chest pain during the COVID-19 pandemic related to suspected myocarditis associated with COVID-19 vaccines, or to the presentation of COVID-19 positive patients. The ability to upload ECG results to a patient's My Health Record is also not widely available.

With the use of available data, the working group noted that, even before the 2020 changes were implemented, the number of ECGs performed had been decreasing since the onset of the COVID-19 pandemic in early March 2020. Following the MBS item changes taking effect in August 2020, the number of ECGs performed in both metropolitan and rural and remote areas decreased further. This included a reduction in the number of ECGs claimed with stress tests and the broader in-hospital block on ECG claiming.

There are further factors that may impact on the number of ECGs performed, including an aging population and the introduction of new medicines. However, it is difficult to determine using MBS data alone, how many services may be considered unnecessary. It is also not possible to conclusively

determine whether the reduction in services means that more patients are not receiving ECGs, or whether more ECGs are now being performed outside of the private sector (particularly in EDs).

The working group considered that there are several factors that have likely led to a decreased volume of ECGs being performed in rural and regional areas. These include increased difficulty in accessing pathology services, the increase in telehealth services during the COVID-19 pandemic (also evident in metropolitan areas) and staffing pressures that mean private practices are likely to only perform essential ECGs. It is also possible that the MBS item changes have disincentivised some private general practices from performing appropriate ECGs, especially in rural and remote areas. The working group considered that the reduction in services performed in rural and remote areas may mean patients are travelling elsewhere to have their ECGs, or that there are less opportunistic ECGs being performed. However, as mentioned previously, it is difficult to determine the reason through MBS data alone.

The working group also considered the fee differential between GPs and specialists may be viewed as inequitable and have workforce implications. GPs can only access MBS item 11707 for trace (without a report), which only requires a level of interpretation required to direct immediate clinical decision making. Specialists can claim MBS item 11704 for trace and report, MBS item 11705 for report only, and MBS item 11714 for trace and interpretation/clinical note. The working group considered it important to incentivise clinical decision-making and autonomy and that interpretation of ECG traces should not be limited by subspecialty. Rather, that MBS should rebate appropriately whoever determined that an ECG trace was required, with subsequent interpretation of results to direct immediate clinical care. The working group also considered it important to incentivise specialist support or second opinions when they are necessary, which means that there needs to be a system in place that allows for referral and consultation with a more experienced clinician.

Summary of the working group recommendation

The working group recommends amendment to ECG MBS items to reflect responsibility and clinical duty more appropriately, rather than subspecialty.

Amendments are recommended to two MBS items:

- Item 11707 (trace only) to specify that it is used only when GPs perform the trace for provision to a specialist for formal report; and
- Item 11714 (trace and clinical note), to be claimable by any medical practitioner (currently restricted to specialist and consultant physician).

Two additional ECG items are available for use by specialists and consultant physicians for ECG formal report only, and ECG and formal report. No amendments are recommended for these items.

Consultation and feedback review process

Consultation with relevant and interested organisations, peak bodies and consumers is considered essential in the formulation of advice to government on recommended changes to MBS items. The committee and its working groups seek feedback on their understanding of the existing model of care and issues of consideration, with particular emphasis on any (yet) unidentified consequences that may result from proposed changes.

All feedback provided through consultation processes is considered by the committee in finalising its recommendations.

Targeted Consultation

In February 2024, the Department of Health and Aged Care invited submissions from relevant peak bodies to inform a post-implementation review of the 1 August 2020 changes made to MBS items for electrocardiogram (ECG) services.

Public Consultation

The department undertook a six-week period of public consultation, which closed on 25 July 2024. Peak bodies that were invited to provide a submission as part of the earlier targeted consultation activity were provided with a second opportunity to provide feedback as part of the public consultation on the Post-implementation Review of changes to ECG MBS items.

Abbreviations and acronyms

AIHW	Australian Institute of Health and Welfare
ECG	electrocardiogram
ED	emergency department
GP	general practitioner
MBS	Medicare Benefits Schedule
MM	Modified Monash
MRAC	MBS Review Advisory Committee
OMP	other medical practitioners

Preamble

Medicare Benefits Schedule Continuous Review

The MBS is a list of health professional services (items) subsidised by the Australian Government for health consumers. MBS items provide patient benefits for a wide range of health services including consultations, diagnostic tests, therapies and operations.

The MBS Continuous Review builds on the work of the MBS Review Taskforce (the Taskforce). From 2015 to 2020, the Taskforce provided the first extensive, line-by-line review of the MBS since its inception in 1984.

In October 2020, the Australian Government committed to establishing a continuous review framework for the MBS, consistent with recommendations from the Taskforce final report.

Established in 2021, the MBS Continuous Review allows for ongoing rigorous and comprehensive reviews of MBS items and services by experts, on a continuous basis, to ensure that the MBS works for patients and supports health professionals to provide high-quality care.

Medicare Benefits Schedule Review Advisory Committee

The MBS Review Advisory Committee supports the MBS Continuous Review by providing independent clinical, professional and consumer advice to government on:

- opportunities to improve patient outcomes in instances where a health technology assessment by the Medical Services Advisory Committee is not appropriate
- the safety and efficacy of existing MBS items
- implemented changes to the MBS, to monitor benefits and address unintended consequences.

The committee comprises practising clinicians, academics, health system experts and consumer representatives. The committee's current membership is listed in Table 1.

Table 1 MBS Review Advisory Committee membership

Member	Speciality
Conjoint Professor Anne Duggan (Chair)	Policy and Clinical Adviser / Gastroenterology
Ms Jo Watson (Deputy Chair)	Consumer Representative
Dr Jason Agostino	General Practice / Epidemiology / Indigenous Health
Dr Matt Andrews	Radiology
Professor John Atherton	Cardiology
Professor Wendy Brown	General Surgeon – Upper Gastrointestinal and Bariatric Surgery
Ms Jan Donovan	Consumer Representative
Professor Adam Elshaug	Health Services / Systems Research
Associate Professor Sally Green	Health Services / Systems Research
Adjunct Associate Professor Chris Helms	Nurse Practitioner
Professor Harriet Hiscock	Paediatrics
Ms Alison Marcus	Consumer Representative
Associate Professor Elizabeth Marles	General Practice / Indigenous Health and Health Policy
Dr Sue Masel	Rural General Practice
Professor Christobel Saunders	General Surgeon – Breast Cancer and Reconstructive Surgery
Associate Professor Ken Sikaris	Pathology
Ms Robyn Stephen	Paediatric Speech Pathology
Departmental Medical Adviser	
Associate Professor Andrew Singer	

MBS Continuous Review Guiding Principles

The following principles guide the deliberations and recommendations of the MBS Continuous Review:

- a) The MBS:
 - is structured to support coordinated care through the health system by
 - recognising the central role of General Practice in coordinating care
 - facilitating communication through General Practice to enable holistic coordinated care
 - is designed to provide sustainable, high-value, evidence-based and appropriate care to the Australian community
 - item descriptors and explanatory notes are designed to ensure clarity, consistency, and appropriate use by health professionals
 - promotes equity according to patient need
 - ensures accountability to the patient and to the Australian community (taxpayer)

- is continuously evaluated and revised to provide high-value health care to the Australian community.
- b) Service providers of the MBS:
- understand the purpose and requirements of the MBS
 - utilise the MBS for evidence-based care
 - ensure patients are informed of the benefits, risks and harms of services, and are engaged through shared decision making
 - utilise decision support tools, Patient Reported Outcome and Experience Measures where available and appropriate.
- c) Consumers of the MBS:
- are encouraged to become partners in their own care to the extent they choose
 - are encouraged to participate in MBS reviews so patient healthcare needs can be prioritised in the design and implementation of MBS items.

The committee and its working groups recognise that general practitioners are specialists in their own right. Usage of the term ‘General Practice’, both within this report and in the MBS itself, does not imply that general practitioners are not specialists.

The committee notes that the MBS is one of several available approaches to funding health services. The committee and its working groups apply a whole-of-healthcare-system approach to its reviews.

Government consideration

If the Australian Government agrees to the implementation of recommendations, it will be communicated through future government announcement.

Information will also be made available on the Department of Health and Aged Care websites, including [MBS Online](#), and departmental newsletters.

Electrocardiogram Working Group

The working group was established to lead a post-implementation review of 1 August 2020 changes to ECG MBS items. The working group comprises committee members and additional members with specialist skills not represented within the committee's current membership, to provide expert advice to the committee. The working group's membership is listed in Table 2.

The working group has met on three occasions: 20 July 2023, 19 September 2023 and 2 April 2024.

Table 2 Electrocardiogram Working Group members

Member	Speciality
Dr Chris Helms	Chair / Nurse Practitioner
Professor John Atherton	Cardiology
Professor Derek Chew	Interventional Cardiology
Dr Susan Kurrle	Geriatric Medicine
Ms Alison Marcus	Consumer Representative
Associate Professor Elizabeth Marles	General Practice / Indigenous Health
Dr Sue Masel	Rural General Practice
Dr Clare Skinner	Emergency Medicine
Departmental Medical Adviser	
Associate Professor Andrew Singer	

Background

On 1 August 2020, changes were made to MBS items for cardiac imaging services, including 12-lead ECG, to better clarify the clinical requirements and circumstances where this testing and repeat testing were appropriate. The restructure was in response to a growth in claims for seemingly low-value and potentially opportunistic ECGs, including:

- cases of multiple ECGs being performed on the same day by the same clinician
- many routine ECGs being performed in general practice
- increases in ECG services being claimed each year being more than the population growth rate.

The changes aimed to improve quality of care, encourage high-value care (by ensuring that testing was only performed when there was a clinical need) and reflect best practice. The changes were recommended by the Taskforce following an extensive period of stakeholder and sector consultation.

The changes involved the removal of MBS items 11700 (trace and formal report; the most claimed MBS item by both GPs and specialists), 11701 (report only) and 11702 (trace only), and the introduction of MBS items:

- 11704 – trace and report, claimable by a specialist and consultant physician (in a third-party capacity)
- 11705 – report only, claimable by a specialist and consultant physician
- 11707 – trace only, claimable by a medical practitioner
- 11714 – trace and interpretation/clinical note, claimable by a specialist and consultant physician.

These new MBS items included claiming restrictions (as noted), such as GPs being restricted to claiming MBS item 11707 only.

As part of these changes, two system blocks were put in place. The first ensured ECGs could not be claimed at the same time as a stress test (as an ECG was considered part of the test), and the second restriction blocked claiming of ECG items for hospital inpatients, except for MBS item 11705 (for report only). Clearer educational materials were produced by the department to inform providers that stress testing includes a resting ECG, and that ECGs required for patient employment purposes should not be claimed on the MBS.

Initial review of MBS item changes

On 29 July 2020, the then Minister for Health and Aged Care announced that the Department of Health and Aged Care would undertake a review of the changes to MBS items for ECG, to commence 6 months post-implementation. In March 2021, the department established an independent ECG Review Committee to undertake the review.

The final recommendations of the ECG Review Committee were:

- Enable access for all medical practitioners (thereby allowing access for GPs) to the trace and clinical note MBS item (11714) and increase the daily number of claimable services.
- Introduce a new MBS item or amend the existing trace and report MBS item (11704) so that specialists and consultant physicians can access a trace and report MBS item. This can be

claimed with a consultation MBS item (dependent on the previous recommendation being accepted).

- Adopt a fee structure based on the application of a clinical value tier structure.

In January 2022, these recommendations were provided to the Australian Government for consideration. The government acknowledged the concerns raised by the ECG Review Committee and considered its recommendations. The government noted the overall reduction in out-of-hospital claims for ECG MBS items following the 1 August 2020 changes, as well as the other variables identified in the report, especially the concurrent impact of the COVID-19 pandemic on face-to-face consultations and ECGs, and the increased use of telehealth. The government agreed that, without separating these variables, it was impossible to attribute the decline in ECG service claims to the MBS item changes alone.

Need for a subsequent post-implementation review

As the reason for the decline in ECG MBS item claims was deemed inconclusive by the initial review of the 2020 changes, the government instructed the department to undertake a further review of ECG MBS items once another 12 months of data were available. This was intended to allow claiming patterns to settle from the earlier impacts of the COVID-19 pandemic, and to provide clearer separation from the 1 August 2020 changes. A further 12 months was also expected to provide greater opportunity to review health outcomes data (if available), which were not available at the time of the initial review.

The then Minister for Health requested that the MBS Review Advisory Committee undertake this further post-implementation review.

On 1 March 2023, the committee agreed to the establishment of a working group to provide advice on any impacts to patient access and health outcomes following the 1 August 2020 implementation of ECG MBS item changes.

Post-implementation reviews

Whenever changes are made to MBS items, they are subject to a post-implementation review. The standard timeframe for commencement of a post-implementation review is 24 months after MBS changes were effected, noting that this timeframe may vary where more or less data is needed to inform the review.

Post-implementation reviews provide an opportunity to assess whether these changes are achieving their intended outcomes and to identify any impacts to patient access and health outcomes.

Electrocardiogram Working Group findings

The ECG Working Group compared MBS usage data for ECG MBS items before and after the item changes were implemented on 1 August 2020, and considered possible reasons for changes in service volume.

Number of services performed

A reduction in the number of ECG services was expected because of a system block imposed on claiming inpatient services for items 11704, 11707 and 11714.

In the financial year after the changes were implemented, there was a 22% decrease in the number of ECG services performed nationally. While the number of GP services decreased by an average of 18%, there was a considerably larger reduction in the number of services performed by 'other medical practitioners'¹ (OMPs), with an average decrease of 76%. This was likely due to a number of factors during the COVID-19 pandemic, including (but not limited to) significant workforce measures to increase the number of OMPs undertaking vocational GP speciality training and OMPs moving into the COVID-19 vaccination clinics. There was also a reduction in the number of specialist services (average decrease of 22%), noting that an overwhelming percentage of inpatient services claimed prior to the 1 August 2020 changes were claimed by specialists or consultant physicians.

By Modified Monash Model classification

There were significant reductions in the number of ECG services claimed across all [Modified Monash](#) (MM) classification areas. Overall, the decrease in the number of ECG services performed in areas classified as MM 3–7 (23%) was consistent with that for MM 1–2 areas (22%).

The reduction in the number of ECG services performed in MM 3–7 areas could not solely be attributed to the block on inpatient services, as the majority of ECG services performed in MM 3–7 areas are conducted by GPs in outpatient settings. The reduction in services for MM 1–2 areas was likely not as significant as the previous ECG Review Committee had believed.

By MBS item

11700 vs 11704 (trace and report)

When GP access was restricted for MBS item 11704, the number of claims by providers reduced significantly (from 33,748 to 1,663) and will continue to decline until no further GP claims are submitted. Significant reductions were also seen in the number of service claims (from 3,248,082 to 501,759), including for bulk-billed services (from 2,125,908 to 422,724), as well as the number of patient claims (from 2,133,580 to 459,134). This was likely due to the new MBS item moving away from open claiming to claiming by specialist-only third-party services. Most services are performed

¹ For this report, an OMP is someone who is not vocationally trained in a specialty and does not fit within any other category (that is, they are not a GP, GP trainee, specialist or consultant physician). An OMP is not considered as an 'other GP'; this is either a GP trainee, or someone who is not a GP trainee nor a vocationally registered GP but has access to Group A1 MBS items.

by pathology services, with Southern. IML Pathology (under Sonic Healthcare) being the largest provider of these services by volume.

11701 vs 11705 (report only)

There was a significant increase in both patient claims (from 25,765 to 143,634) and service claims (from 27,821 to 218,830) following the MBS item changes. This was largely attributed to the use of inpatient services.

In-hospital utilisation of the report-only MBS item, which was very limited before the MBS item changes were implemented, increased significantly following the changes. Utilisation is still limited in the outpatient setting. The working group noted this suggests that hospitals have adjusted their care models to capture ECG claiming within routine service reporting by specialists.

11702 vs 11707 (trace only)

There was an increase in provider claims following the MBS item changes (from 2,205 to 28,312). This was largely attributed to the new MBS item (11707) being the only one that was claimable by GPs.

By age and gender

There were reductions in the number of ECG services claimed across both genders in the 45–49 age bracket and older, especially so in the 85+ age bracket. The working group concluded the decrease in services for the older age brackets (which was consistent with MBS service data for face-to-face consultations) was likely due to patients avoiding face-to-face medical consultations during the COVID-19 period, instead opting for telehealth consultations.

There was an increase in ECG services for younger age brackets, especially the 10–14 and 15–19 age brackets, but also the 20–24 and 25–29 age brackets. Younger women tended to have more ECGs than men. The working group suspected increases in the younger age brackets were likely due to increased vigilance for the detection of rare side effects of COVID-19 vaccines that mostly affected younger people (myocarditis and pericarditis) or chest pain reported with COVID-19 infection, and for work-up of symptoms related to suspected long COVID.

Bulk-billing rates

For out-of-hospital services, there was a significant reduction in bulk-billing by specialists following the changes, but an increase in bulk-billing by GPs, GP registrars and OMPs for the trace-only MBS item. The working group noted several possible reasons for the increases:

- During the pandemic, there was increased education, tips and strategies being shared about making full use of bulk-billing, and increased advocacy of telehealth.
- During the pandemic, some services were referred on to other health services instead of being done in general practice. The working group suspected this may have been due to the increased use of telehealth, but also that more people were being referred to pathology services to minimise face-to-face contact in general practice.
- There was an increase in presentations to the ED for category 2 chest pain, which the working group considered may have been related to COVID-19 concerns, and the side effects of COVID-19 vaccines. Many ECGs for COVID-19 chest pain workups were performed in bulk-bill respiratory clinics.

From the data, the working group could not conclude if the decrease in bulk-billing by specialists meant a decrease in access to ECG services.

Co-claiming of ECG MBS items

Since their establishment on 1 April 2019, heart health assessment MBS items 177 and 699 have been co-claimed with ECG MBS items. The number of heart health assessment MBS items co-claimed with ECG MBS items was small in 2018–19 (4,257 services), but quickly increased in 2019–20 (36,299 services). The number of claims remained above 32,000 for the next 2 years, but there was a sharp increase in the number of services co-claimed in 2022–23 (64,017). The working group noted this may have been due to a push from the Heart Foundation to promote the use of the heart health assessment MBS items.

The working group further noted that the heart health assessment MBS items had an unrestricted age limit from 1 April 2019 to 30 June 2021, which was later limited to patients aged 30 years and older from 1 July 2021.

Assessment of main issues

Overall, there are limitations on the conclusions and assumptions (for example, about the strength of associations) that can be drawn from MBS data. The working group noted that issues with data interpretation were also raised by the previous ECG Review Committee.

These limitations are difficult to overcome due to privacy considerations, including low service volumes in rural and remote areas, data silos, and the types of data that are measured through the MBS. This means it is not possible to perform further statistical analyses to determine correlations between the reductions in ECG services, the changes to MBS items and the effects of the COVID-19 pandemic; how these differed by rurality; and how they were linked to clinical outcomes.

Uncertain decrease in inappropriate ECGs

The working group noted that the original intention of the MBS item changes was to reduce the number of inappropriate ECG services. While there had been a reduction in ECG services following the changes, it was difficult to determine using MBS data, how many of those services had been inappropriate. For example, the working group considered that, although routine ECGs performed in general practice had been increasing before the changes were implemented, factors such as an aging population and the increased use of certain medications (such as cholinesterase inhibitors to treat dementia, and antipsychotics) may have meant that some routine ECGs were being performed appropriately.

The working group agreed that multiple ECGs performed on the same day by the same clinician, and ECG MBS items claimed at the same time as stress tests, were inappropriate, and noted that the number of ECGs claimed with stress tests had reduced by approximately 15,000 services following the changes. A before and after comparison was conducted on how many ECGs were claimed on the same day by the same provider (or any provider), to ascertain if provider behaviour had changed. Data confirmed that there was a reasonable reduction in repeat same day claiming, particularly for GPs.

The working group also considered that only allowing GPs access to the trace-only MBS item may have disincentivised some appropriate ECG services in private general practice across Australia, especially in rural and remote areas. Qualitative data from consultations regarding this issue is important for the working group's deliberations.

Impact of COVID-19 on ECG services

The working group noted from state-based data (from January 2018 to December 2022) that, even before the MBS item changes were implemented in August 2020, there was a reduction in the number of ECG services performed in the private sector and billed to Medicare, particularly in the eastern states. The most significant decrease in services across Australia occurred in March 2020, when COVID-19 restrictions were first introduced. Further significant decreases were seen in Victoria when the state went into lockdown in July 2020, but there was an increase in services in all other states and territories when compared to 2018 figures. After the introduction of the new MBS items in August 2020, there was another decrease in services across all states and territories, especially in Victoria. When further lockdowns occurred in other states (New South Wales in June 2021, and Victoria and the Australian Capital Territory in August 2021), there was an immediate decrease in ECG services.

The working group considered the reduction in ECG services during the COVID-19 pandemic may have been related to a lack of patient access or patient unwillingness to access medical services during that time, and the rapid increased use of telehealth services.

The working group noted that the number of ECG services claimed remained at a lower volume in late 2022. This may be a result of the MBS item changes, or it may reflect that both patients and providers have established new patterns (started during the COVID-19 pandemic) of when to undertake an investigation. The working group considered that it would be interesting to see if ECG numbers have increased in 2023, now that Australia has mostly come through the pandemic².

The working group questioned whether these reductions mean more patients are not receiving ECGs, or that more ECGs are being performed outside of the private sector (thus not billed to Medicare). The working group considered that while it is not possible, using MBS data alone, it would be useful to be able to determine the clinical consequences of these reductions, and if the reductions in ECG services performed in the private sector correlated with the increase in the number of people presenting to the ED with chest pain since the start of the pandemic.

Equity of access for rural and remote areas

The working group noted that once a pathology service performs the ECG trace component of MBS item 11704, is it then sent to a central base where a contracted cardiologists can review and prepare a report. The report is then sent back, usually electronically, to the clinician who requested the ECG. The working group considered that this process was more difficult for people in rural and remote areas (especially for those attending private practices) who do not have easy access to pathology services.

The working group noted a consistent reduction in the number of ECGs performed in MM 6 areas following the MBS item changes, and considered that difficulty in accessing pathology services may be a contributing factor (with most ECGs likely being performed by GPs or in hospitals in [Section 19 exemption areas](#)). The working group observed another factor may be staffing pressures within private practices for rural and remote areas, which may result in only essential ECGs being performed. An increase in telehealth services during the COVID-19 pandemic may have also affected the number of ECGs performed. Furthermore, the working group considered the reduction in services performed in rural and remote areas may indicate that patients are needing to travel to have ECGs performed elsewhere. However, it is not possible to definitively determine the contributing factors based on MBS data alone.

Impact of reducing the rebate for ECG services

The working group considered that a reduction in the rebate for ECG services was not a reason not to conduct or request an ECG, but that it may contribute to reduced maintenance of equipment or practitioner skills required to perform an ECG. For example, GPs may choose to send a patient with chest pain to an ED (or a pathology or another service) instead of performing the ECG in the practice. However, the working group noted that access to alternative services may not be an option for people in rural and remote areas, and that it is important to ensure that those clinicians and patients are not disadvantaged.

² MBS data for full 2023 calendar year will be accessible from April 2024.

Access to reimbursement for GPs and specialists

The working group considered that the current structure of ECG MBS items may be viewed as inequitable and result in workforce implications, noting that currently, GPs who interpret and record a clinical note on ECG traces can only claim MBS item 11707 for trace only (no report or clinical note), while specialists can access MBS items 11704, 11705 and 11714 for the application of expertise in interpreting ECG traces. Additionally, the working group noted there are no MBS items accessible to nurse practitioners for performing and interpreting ECG traces.

The working group noted that few GPs who perform an ECG trace and interpretation to decide immediate clinical care would then send the trace to a cardiologist for another interpretation (formal report on the trace). Additionally, it was noted that GPs often refer the recording of routine ECGs to another service, such as a pathology service or ED.

The working group considered that item fee differentials for ECG services performed either by specialists or GPs likely disincentivises GPs from performing these services. The working group concluded that to incentivise clinical decision-making and autonomy, fees should be based on responsibility and clinical duty rather than subspecialty, and that regardless of who determines an ECG is required, conducts the ECG and interprets the results. The scheduled fee should appropriately reflect the task and level of responsibility undertaken in managing the clinical care of a patient.

The working group considered it important to incentivise specialist support or second opinions (known as a formal report only) when necessary, and considered the MBS should support referral and consultation with a more experienced clinician to avoid disincentivising clinicians from practising in rural and remote areas.

The working group considered several options to restructure MBS items so that fees are based on responsibility and clinical duty.

Information gaps and barriers to implementation

Inability to determine the number of ECGs performed in EDs

The working group noted that it is not possible to determine the number of ECGs performed in EDs. While changes in the number of presentations based on discharge diagnosis (using data from the [International Statistical Classification of Diseases and Related Health Problems, 10th revision](#)) could be determined, other cardiac diagnoses would need to be considered given that chest pain is not the only reason for performing an ECG in EDs. However, the working group considered that it would be beneficial to determine if an increase in ED presentations, particularly in MM 3–7 areas, corresponded to a reduction in GP claims, as this may indicate a shift in practice.

Inability to track ECGs performed as part of another procedure

The working group noted that limitations with MBS data made it impossible to distinguish between ECGs performed on symptomatic patients and ECGs performed by GPs as part of a workup for another reason (such as an elective procedure). This includes when a hospital clinician has requested a GP to perform an ECG for a private patient as a pre-workup for a procedure. It is also not possible to determine if third parties conducting pathology services at hospitals bill under a pathologist out-of-hospital provider number, which means that it is not possible to determine if an ECG is performed as part of another procedure.

However, any ECG performed in relation to a hospital admission and elective procedure (including as part of pre-anaesthesia workup) is considered part of the hospital episode, so is covered by the hospital (except when the service associated with MBS item 11705 is conducted).

Inability to link ECG MBS data to e-health records

The working group considered that the uploading of ECG results, including the ECG image and formal report to a patient's My Health Record (if they have one and consent to the data being shared) would facilitate continuity of care, and that this could be made a requirement of claiming ECG MBS items. However, the working group noted that the linkage between My Health Record and Medicare does not currently exist, so compliance monitoring would have to be conducted post-payment. Additionally, current technology limitations mean that not every clinician (especially those in rural and remote areas) can upload traces. Therefore, the working group considered that this could be a future improvement to be implemented once the technology is widely available and easy to use.

Lack of peer-reviewed data outside of the MBS

The working group noted a lack of journal articles that consider the negative and positive outcomes of ECGs.

Additionally, there are currently no journal articles available that assess the impact of COVID-19 on ECGs.

Recommendation

Amend ECG MBS item descriptors

The working group recommends amendment to ECG MBS items to reflect responsibility and clinical duty more appropriately, rather than subspecialty. Amendments are recommended to:

- MBS item 11707 - trace only; and
- MBS item 11714 - trace and clinical note.

The amendment to item 11714 seeks to ensure the medical practitioner claiming the service:

- has used the ECG to inform clinical decision making during an attendance;
- details the clinical indication for the service in the clinical note;
- includes the interpretation in the context of the indication for the service in the clinical note; and
- does not require a formal report.

The amendment to item 11707 seeks to ensure that the item is only claimed when a medical practitioner has undertaken a trace for the purpose of forwarding to a specialist or consultant physician for a formal report.

Current MBS items for ECG services, along with proposed item descriptor amendments are as follows:

11704 Twelve-lead electrocardiography, trace and formal report, by a specialist or a consultant physician, if the service:

- (a) is requested by a requesting practitioner; and
- (b) is not associated with a service to which item 12203, 12204, 12205, 12207, 12208, 12210, 12213, 12215, 12217 or 12250 applies

11705 Twelve-lead electrocardiography, formal report only, by a specialist or a consultant physician, if the service:

- (a) is requested by a requesting practitioner; and
- (b) is not associated with a service to which item 12203, 12204, 12205, 12207, 12208, 12210, 12213, 12215, 12217 or 12250 applies

Applicable not more than twice on the same day

11707 Twelve-lead electrocardiography, trace only, by a medical practitioner, if:

- (a) the trace is provided to a specialist or consultant physician for a formal report ~~required to inform clinical decision making~~; and

~~(ii) is reviewed in a clinically appropriate timeframe to identify potentially serious or life-threatening abnormalities; and~~

~~(iii) does not need to be fully interpreted or reported on; and~~

(b) the service is not associated with a service to which item 12203, 12204, 12205, 12207, 12208, 12210, 12213, 12215, 12217 or 12250 applies

Applicable not more than twice on the same day

11714

Twelve-lead electrocardiography, trace and clinical note, by a medical practitioner ~~specialist or consultant physician~~, if:

- a) the trace is required to inform clinical decision making during or following an attendance; and
- b) the clinical note details the clinical indication for the service; and
- c) the clinical note includes the interpretation in the context of the indication for the service; and
- d) the service does not require a formal report: and
- e) the service is not associated with a service to which item 12203, 12204, 12205, 12207, 12208, 12210, 12213, 12215, 12217 or 12250 applies

Applicable not more than twice on the same day

Current MBS Item Descriptor - 11707

11707

Group D1 - Miscellaneous Diagnostic Procedures And Investigations

Subgroup 6 - Cardiovascular

Twelve-lead electrocardiography, trace only, by a medical practitioner, if:

(a) the trace:

(i) is required to inform clinical decision making; and

(ii) is reviewed in a clinically appropriate timeframe to identify potentially serious or life-threatening abnormalities; and

(iii) does not need to be fully interpreted or reported on; and

(b) the service is not associated with a service to which item 12203, 12204, 12205, 12207, 12208, 12210, 12213, 12215, 12217 or 12250 applies

Applicable not more than twice on the same day

Note: the service is not provided to the patient as part of an episode of:

- i. hospital treatment; or
- ii. hospital-substitute treatment.

Fee: \$20.25 **Benefit:** 85% = \$17.25

(See para [DR.1.4](#) of explanatory notes to this Category)

Proposed amended MBS Item Descriptor - 11707

11707

Group D1 - Miscellaneous Diagnostic Procedures And Investigations

Subgroup 6 - Cardiovascular

Twelve-lead electrocardiography, trace only, by a medical practitioner, if:

- (a) the trace is provided to a specialist or consultant physician for a formal report; and
- (b) the service is not associated with a service to which item 12203, 12204, 12205, 12207, 12208, 12210, 12213, 12215, 12217 or 12250 applies

Applicable not more than twice on the same day

Note: the service is not provided to the patient as part of an episode of:

- iii. hospital treatment; or
- iv. hospital-substitute treatment.

Fee: \$20.25 **Benefit:** 85% = \$17.25

(See para [DR.1.4](#) of explanatory notes to this Category)

Current MBS Item Descriptor - 11714

11714

Group D1 - Miscellaneous Diagnostic Procedures And Investigations

Subgroup 6 - Cardiovascular

Twelve-lead electrocardiography, trace and clinical note, by a specialist or consultant physician, if the service is not associated with a service to which item 12203, 12204, 12205, 12207, 12208, 12210, 12213, 12215, 12217 or 12250 applies

Applicable not more than twice on the same day

Note: the service is not provided to the patient as part of an episode of:

- i. hospital treatment; or
- ii. hospital-substitute treatment.

Fee: \$26.65 **Benefit:** 85% = \$22.70

(See para [DR.1.4](#) of explanatory notes to this Category)

Proposed amended MBS Item Descriptor - 11714

11714

Group D1 - Miscellaneous Diagnostic Procedures And Investigations

Subgroup 6 - Cardiovascular

Twelve-lead electrocardiography, trace and clinical note, by a medical practitioner if:

- a. the trace is required to inform clinical decision making during or following an attendance; and
- b. the clinical note details the clinical indication for the service; and
- c. the clinical note includes the interpretation in the context of the indication for the service; and
- d. the service does not require a formal report: and
- e. the service is not associated with a service to which item 12203, 12204, 12205, 12207, 12208, 12210, 12213, 12215, 12217 or 12250 applies

Applicable not more than twice on the same day

Note: the service is not provided to the patient as part of an episode of:

- i. hospital treatment; or
- ii. hospital-substitute treatment.

Fee: \$26.65 **Benefit:** 85% = \$22.70

(See para [DR.1.4](#) of explanatory notes to this Category)