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Medicare Benefits Schedule Review Taskforce

Third Report from the  
Diagnostic Imaging Clinical  
Committee – Knee Imaging

2017

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## Important note

The views and recommendations in this review report from the clinical committee have been released for the purpose of seeking the views of stakeholders.

This report does not constitute the final position on these items which is subject to:

△ Stakeholder feedback;

Then

△ Consideration by the MBS Review Taskforce;

Then *if endorsed*

△ Consideration by the Minister for Health; and

△ Government.

Stakeholders should provide comment on the recommendations via the online consultation tool.

All information and data contained in this report is true and correct at the time of the committee's deliberations and writing of this report. Changes to data sources after this time may impact on the accuracy of the data.

### Confidentiality of comments:

If you want your feedback to remain confidential please mark it as such. It is important to be aware that confidential feedback may still be subject to access under freedom of information law.

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# 1. Executive Summary

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 The Taskforce will also seek to identify any services that may be unnecessary, outdated or potentially unsafe.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

The Diagnostic Imaging Clinical Committee (the Committee) was established to make recommendations to the Taskforce on the review of MBS items in its area of responsibility, based on rapid evidence review and clinical expertise. The Taskforce asked the Committee to review MBS items for knee ultrasound, X-ray, CT and MRI, including GP-requested MRI of the knee, as priority reviews. The DICC established a Knee Imaging Working Group (the Working Group) to undertake this priority review.

## 1.1 MBS Review process

The Taskforce has endorsed a process whereby the necessary clinical review of MBS items is undertaken by Clinical Committees and Working Groups. The Taskforce asked all committees in the second tranche of the Review process to review MBS items using a framework based on Appropriate Use Criteria accepted by the Taskforce<sup>1</sup>. This framework includes the following steps: (i) review data and literature relevant to the items under consideration; (ii) identify MBS items that are potentially

obsolete, are of questionable clinical value, are misused and/or pose a risk to patient safety; and (iii) develop and refine recommendations for these items, based on the literature and relevant data, in consultation with relevant stakeholders. In complex cases, full appropriate use criteria were developed for an item's descriptor and explanatory notes. All second-tranche committees involved in this Review adopted this framework, which is outlined in more detail in Section 2.3.

The recommendations from the Clinical Committees will be released for stakeholder consultation. The Clinical Committees will consider feedback from stakeholders and then provide recommendations to the Taskforce in Review reports. The Taskforce will consider the Review reports from Clinical Committees, along with stakeholder feedback, before making recommendations to the Minister for Health for consideration by the Government.

## 1.2 Consumer engagement

The recommendations have been summarised for consumers in Appendix B. The summary describes the medical service, the recommendation of the clinical experts and the page references of the rationale behind the recommendations and proposed new items.

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.

## 1.3 Areas of responsibility of the Knee Imaging Working Group

The following MBS item groups were identified for review. A full list of all items and descriptions are listed in Appendix A.

### **Item group name 1**

Magnetic resonance imaging (MRI) of the knee (6 items)

### **Item group name 2**

Ultrasound of the knee (4 items)

### **Item group name 3**

X-ray of the knee (8 items)

### **Item group name 4**

Computed tomography (CT) of the knee (4 items)

## 1.4 Key recommendations

The most important recommendations are highlighted below. The complete recommendations (and their accompanying rationales) for all items can be found in Sections 5 to 7, and in Appendix A (in table summary form).

### 1.4.1 MRI of the knee

A recommendation is introducing the principal of an additional age cut-off for knee MRI referrals (N.B. segregation into under and over 16 years of age is currently part of the MBS) to provide separate descriptors and/or restrictions for patients under and over 50 years of age whom a GP may consider appropriate for knee MRI.

A recommendation is that the requirement to undergo plain radiography before MRI for under 16 year olds should be removed and not mandated for any age group, to reduce radiation exposure and the costs associated.

A recommendation is restricting the number of GP-referred MRIs to three per annum. Any further MRI should be requested by a specialist if the referral falls within the 12 month period after the initial GP referred MRI. This may improve appropriate utilisation of GP requested MRI of the knee.

The Committee was unable to decide between two options to address the principal of an additional age cut-off for knee MRI referrals.

Following consideration of the options by the MBS Reviews Taskforce, the following recommendation is made:

To remove the ability for a GP to request MRIs for patients  $\geq 50$  years of age from the MBS, but retain specialist requesting for any age group.

### 1.4.2 Ultrasound of the knee

The Committee considered the indications on the current item descriptors to be appropriate, with the exception of 'injury of collateral ligaments' because diagnosis of collateral ligament injury severity with imaging does not generally change treatment. The recommendation is the removal of this indication from the current descriptor for items 55828, 55829, 55830 and 55831.

### 1.4.3 X-ray of the knee

Separate the MBS items for the knee from the current X-ray items, which encompass foot, ankle, leg, knee or femur to allow for utilisation monitoring.

### 1.4.4 CT of the knee

Separate the MBS items for the knee from the current CT items which encompass all extremities to allow for utilisation monitoring.



## 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 citizens (and some overseas visitors) to have access to a wide range of health services and medicines at little or no cost.

Introduced in 1984, Medicare has three components:

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

#### What is the MBS?

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

#### 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-served.
- △ **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-date this process and have never been reviewed.
- △ **Value for the individual patient**—another core objective of the Review is to have a 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 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 that 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 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 Diagnostic Imaging Clinical Committee (the Committee). A consultation process will inform recommendations of the Committee and assist in finalising its report to the Taskforce. Following consultation, the Committee will provide its final advice to the 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. To prioritise their work 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 Medical Journal of Australia article on potentially low-value health services
- △ The Australian Commission on Safety and Quality in Health Care’s (ACSQHC) *Atlas of Healthcare Variation*.

### 3. About the Knee Imaging Working Group

The Committee and its Knee Imaging Working Group (the Working Group) was established 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 MBS items for knee ultrasound, X-ray, CT and MRI, including GP-requested MRI of the knee, as priority reviews.

#### 3.1 Diagnostic Imaging Clinical Committee members

Table 1: Diagnostic Imaging Clinical Committee Members

Name	Position/Organisation	Declared conflict of interest
Professor Ken Thomson (Chair)	Program Director, Radiology and Nuclear Medicine, Alfred Hospital	User of MBS services
Professor Stacy Goergen	Director of Research, Monash Imaging; Clinical Adjunct Professor, Southern Clinical School, Monash University	User of MBS services
Professor Alexander Pitman	Director of Nuclear Medicine and PET, Lake Imaging; Adjunct Professor, Medical Imaging, University of Notre Dame	User of MBS services
Dr William Macdonald	Executive Director, Imaging West Head, Nuclear Medicine, Fiona Stanley Hospital; President, Australasian Association of Nuclear Medicine Specialists	User of MBS services
Dr Richard Ussher	Director of Training, Radiology, Ballarat Health Services; Director, Grampians BreastScreen	User of MBS services
Dr Walid Jammal	Clinical Lecturer, Faculty of Medicine, University of Sydney; Conjoint Senior Lecturer, School of Medicine, University of Western Sydney; Private practice	User of MBS services

Name	Position/Organisation	Declared conflict of interest
Associate Professor Rachael Moorin	Associate Professor, Health Policy & Management, School of Public Health, Curtin University; Principal Researcher, Health Centre of Excellence, Silver Chain Group; Adjunct Associate Professor, University of Western Australia	Nil
Dr David Brazier	Radiologist, Royal North Shore Hospital	User of MBS services
Dr Phil Hayward	Research Fellow, Centre for Health Economics Research and Evaluation	Nil
Professor Jenny Doust	Professor of Clinical Epidemiology, Centre for Research in Evidence Based Practice, Bond University; General Practitioner	User of MBS services
Ms Geraldine Robertson	Consumer Representative, Consumers Health Forum & Breast Cancer Network Australia	Nil
Dr Matthew Andrews	MBS Review Taskforce (Ex-Officio)	User of MBS services

### 3.2 Knee Imaging Working Group members

Table 2: Knee Imaging Working Group Members

Name	Position/Organisation	Declared conflict of interest
Prof Stacy Goergen (Chair)	Director of Research, Monash Imaging, Monash Health  Clinical Adjunct Professor, Departments of Surgery and Medical Imaging, Southern Clinical School, Monash University  Chair, RANZCR Quality and Safety Committee	None to declare
Prof Rachelle Buchbinder	Director, Monash Department of Clinical Epidemiology, Cabrini Hospital  Professor, Department of Epidemiology & Preventive Medicine, Monash University	Rheumatologist and clinical epidemiologist at Monash University and the Cabrini Institute.  Published regularly on inappropriate treatments and tests for knee pain, including reviews and editorials in journals such as BMJ and NEJM.  Previously member of Osteoarthritis knee expert

Name	Position/Organisation	Declared conflict of interest
Dr Richard Ussher	Director of Training, Radiology, Ballarat Health Services Director, Grampians BreastScreen	group for the Australian Commission on Quality and Safety (ATLAS). Chair of newly formed Clinical Care Standard for Osteoarthritis who will be looking at knee imaging.
Dr John North	Clinical Director, Queensland Audit of Surgical Mortality & Northern Territory Audit of Surgical Mortality, Royal Australasian College of Surgeons	Orthopaedic surgeon based in Brisbane and visiting orthopaedic surgeon at Princess Alexandra Hospital (level 1 trauma centre). Past President of the Australian Orthopaedic Association. Past Chair for Australian Commission on safety and quality in health care looking at warranted and unwarranted variation in arthroscopic activities. No private practice or shares in radiological or interventional activities. Lecturer at University of Queensland. No other conflict of interests or affiliations declared.
Dr Walid Jammal	Clinical Lecturer, Faculty of Medicine, University of Sydney	GP working in private practice in north-western Sydney.

Name	Position/Organisation	Declared conflict of interest
	Conjoint Senior Lecturer, School of Medicine, University of Western Sydney	Sitting member of MSAC evaluation subcommittee. Medical Advisor at medical indemnity organisation. No other conflict of interests or affiliations declared.
A/Prof Duncan Mortimer	Centre for Health Economics, Monash University	Health economist with special focus in health technology assessment at Monash University. Contract with MSAC to undertake health economic evaluations. Opting out of questions requiring clinical experience. No other conflict of interests and affiliations declared.
Prof Julian Feller	Orthopaedic Surgeon, Epworth Richmond  Clinical Professor, School of Medicine, Deakin University	Orthopaedic surgeon with private practice based in Richmond that is involved with cases that are almost exclusively knee related, with ~60% due to sports, and remaining cases classed as degenerative/arthritis related. Research through collaborators at LaTrobe University, Deakin that is related to outcomes of surgical interventions. No other conflict of interests and affiliations declared.
Dr Andrew Boyden	Clinical Adviser, NPS MedicineWise	Clinical advisor at NPS MedicineWise and one day general practice based in Canberra. Past medical advisor with the Department supporting the process of developing

Name	Position/Organisation	Declared conflict of interest
Dr Sanjay Dhupelia	Radiologist, Queensland X-Ray	<p>the new Medicare items for GPs around MRI, including knee MRI.</p> <p>Past member of the external advisory group for the RACGP MRI guidelines, including formulation of recommendations for MRI imaging of the knee.</p> <p>Actively involved in development of Nationwide diagnostic knee and ankle imaging education program around appropriate imaging to be launched later this year by NPS MedicineWise.</p> <p>Member of External advisory group for Western Australia Diagnostic Imaging Pathways.</p> <p>Radiologist with Queensland X-ray, a facility owned by Sonic Healthcare. Neuroradiologist and musculoskeletal radiologist. Provides limited reporting for SKG and Epworth Medical Imaging (involved with Sonic Healthcare). Possesses shares in Sonic Healthcare.</p> <p>Vice President of Australasian Musculoskeletal Imaging Group.</p> <p>Involved in drafting a submission with the Australian Knee Society (AKS) to the Australian Commission on Quality and Safety in Healthcare for the radiological investigation of knee osteoarthritis.</p>

Name	Position/Organisation	Declared conflict of interest
Dr Anthony Hobbs	Department of Health	<p>Senior Lecturer at University of Queensland.</p> <p>No other conflict of interests and affiliations declared.</p> <p>Principal Medical Advisor for the Department of Health.</p> <p>Past member of the Expert Advisory Group for the Australian Commission on Safety and Quality in Health Care (ACSQH) looking at warranted and unwarranted variation in arthroscopic activities.</p> <p>Member of Clinical Standards Group for Osteoarthritis working with ACSQH looking at developing clinical standard of care.</p>

### 3.3 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. Areas of responsibility of the Knee Imaging Working Group

The principal purpose of this review was to consider:

1. whether current items reflect contemporary best clinical practice based on scientific data
2. whether patients have access to health services that have the potential to improve health outcomes through improved diagnostic accuracy and decision-making and/or harm reduction
3. whether changes to item descriptors, item existence, scope of referral privileges and location of items in clinical sections would support evidence-based practice and more appropriate utilisation or would allow more accurate evaluation of utilisation patterns.

It has been identified that the knee is an area where imaging may be performed for indications that are not evidence-based. Particularly, there is a concern about inappropriate use of MRI knee imaging, as a high volume is performed in patients over 50 who often have coexistent symptoms of osteoarthritis that can be difficult to distinguish from those of meniscal tear and incidental meniscal tears are common in elderly patients with osteoarthritis.

The [American Choosing Wisely<sup>2</sup>](#) have also identified MRI of the knee as an area where 'low value' care may be being provided and should be addressed. The Royal Australian College of General Practitioners (RACGP)<sup>6</sup> and the Royal Australian and New Zealand College of Radiologists (RANZCR) have guidelines for referral for MRI, particularly relating to referring for MRI of the knee.

The following MBS group items were identified for review.

### **Item group name 1**

Magnetic resonance imaging (MRI) of the knee (6 items)

### **Item group name 2**

Ultrasound of the knee (4 items)

### **Item group name 3**

X-ray of the knee (8 items)

### **Item group name 4**

Computed tomography (4 items).

In FY 2014/15, these items accounted for approximately 96 million services and \$134 million in benefits<sup>7</sup>.

## 5. MBS item group 1: MRI of the knee

### 5.1 Items considered in this section

The items listed in Table 3 are considered in this section.

Table 3: Item descriptors

Item	Descriptor
63328	<p>NOTE: Benefits are payable for each service included by Subgroup 12 on three occasions only in any 12 month period</p> <p>MAGNETIC RESONANCE IMAGING performed under the professional supervision of an eligible provider at an eligible location where the patient is referred by a specialist or by a consultant physician - scan of musculoskeletal system for:</p> <ul style="list-style-type: none"><li>- derangement of knee or its supporting structures (R)</li></ul> <p><b>Fee:</b> \$403.20 <b>Benefit:</b> 75% = \$302.40 85% = \$342.75</p>
63343	<p>NOTE: Benefits are payable for each service included by Subgroup 12 on three occasions only in any 12 month period</p> <p>MAGNETIC RESONANCE IMAGING performed under the professional supervision of an eligible provider at an eligible location where the patient is referred by a specialist or by a consultant physician - scan of musculoskeletal system for:</p> <ul style="list-style-type: none"><li>- derangement of knee or its supporting structures (R) <b>(NK)</b></li></ul> <p><b>Fee:</b> \$201.60 <b>Benefit:</b> 75% = \$151.20 85% = \$171.40</p>
63513	<p>SUBGROUP 33- MAGNETIC RESONANCE IMAGING – FOR SPECIFIED CONDITIONS – PERSON UNDER THE AGE OF 16YRS</p> <p>referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of knee for a patient under 16 years following radiographic examination for internal joint derangement (R) (Contrast) (Anaes.)</p> <p><b>Fee:</b> \$403.20 <b>Benefit:</b> 75% = \$302.40 85% = \$342.75</p>
63514	<p>SUBGROUP 33- MAGNETIC RESONANCE IMAGING – FOR SPECIFIED CONDITIONS – PERSON UNDER THE AGE OF 16YRS</p> <p>referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of knee for a patient under 16 years following radiographic examination for internal joint derangement (R) <b>(NK)</b> (Contrast) (Anaes.)</p> <p><b>Fee:</b> \$201.60 <b>Benefit:</b> 75% = \$151.20 85% = \$171.40</p>
63560	<p>SUBGROUP 34 – MAGNETIC RESONANCE IMAGING – FOR SPECIFIED CONDITIONS</p> <p>referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of knee following acute knee trauma for a patient 16 years or older with:</p>

Item	Descriptor
	<ul style="list-style-type: none"> <li>- inability to extend the knee suggesting the possibility of acute meniscal tear (R) (Contrast) (Anaes.); or</li> <li>- clinical findings suggesting acute anterior cruciate ligament tear. (R) (Contrast) (Anaes.)</li> </ul> <p><b>Fee:</b> \$403.20 <b>Benefit:</b> 75% = \$302.40 85% = \$342.75</p>
<b>63561</b>	<p>SUBGROUP 34 – MAGNETIC RESONANCE IMAGING – FOR SPECIFIED CONDITIONS</p> <p>referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of knee following acute knee trauma for a patient 16 years or older with:</p> <ul style="list-style-type: none"> <li>- inability to extend the knee suggesting the possibility of acute meniscal tear (R) <b>(NK)</b> (Contrast) (Anaes.); or</li> <li>- clinical findings suggesting acute anterior cruciate ligament tear. (R) <b>(NK)</b> (Contrast) (Anaes.)</li> </ul> <p><b>Fee:</b> \$201.60 <b>Benefit:</b> 75% = \$151.20 85% = \$171.40</p>

## 5.2 Issues identified

Since the introduction of GP specialist referral privileges, the proportion of total Medicare expenditure of knee MRI has increased from 17% in 2010-11 to 25% in 2014-15<sup>7</sup> of all Medicare services on MRI. Concerns were raised regarding the net health benefits of this additional expenditure, particularly in older patients where the clinical value of knee MRI has come into question.

The first items for GP-referred MRI of the knee were introduced in November 2012 for children under 16 years. A further two items were added to the MBS in November 2013 for patients aged over 16 years following an acute knee trauma, to increase patient access to MRI services. These items required that the patient show symptoms indicative of an acute meniscal tear or anterior cruciate ligament tear to be eligible for a knee MRI. This has led to a doubling in MBS-funded knee MRI, from \$16 million in 2011-12 (100,000 knee MRI services performed) to \$38 million in 2013-14 post implementation of all GP-referred knee MRI (approx. 180, 000 of all knee MRI services i.e. items 63513, 63328, 63560 and 63561).<sup>7</sup>

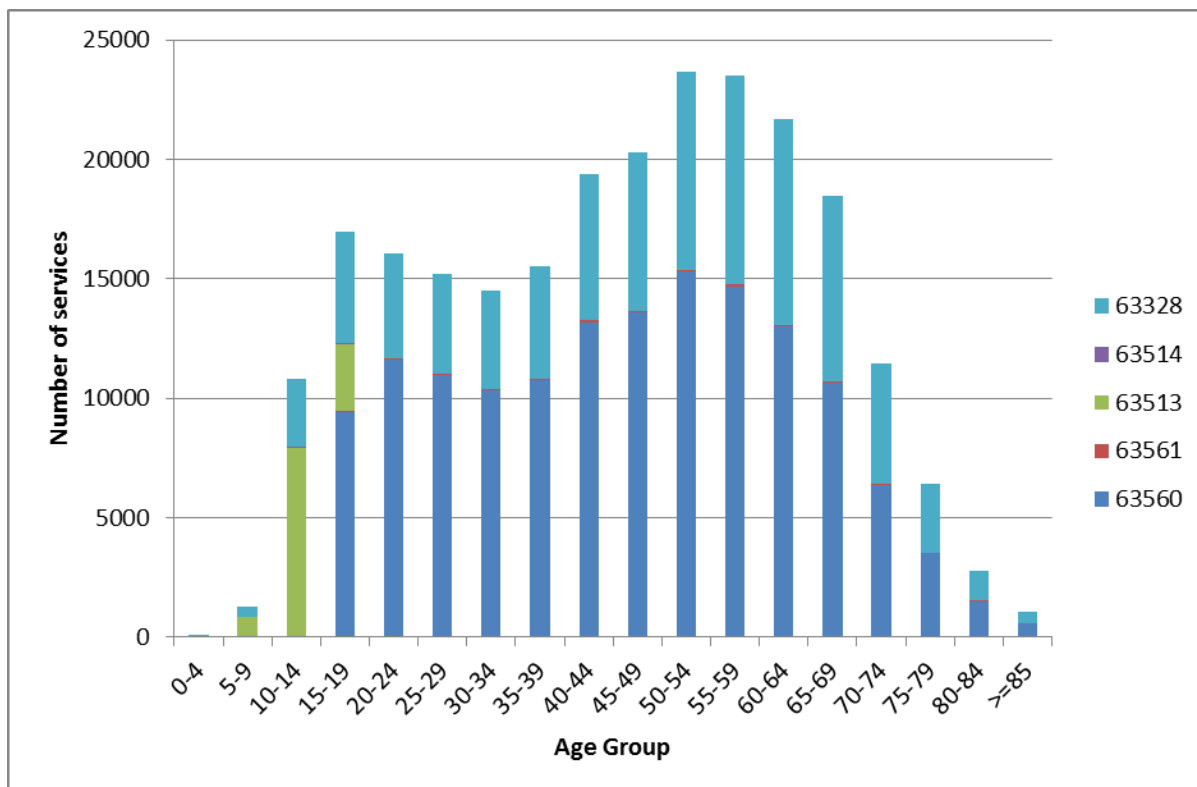


Figure 1: Number of services for MRI of the knee by item by patient's age group 2014-15

### 5.3 Recommendation 1 – MRI Items 63328, 63343, 63513, 63514

- △ Leave 63328 and 63343 item descriptors unchanged.
- △ For items 63513 and 63514, remove the current requirement of mandatory plain radiography before an MRI in patients under the age of 16 years.

Table 4: Current and proposed item descriptor

Current item descriptor	Proposed new item descriptor
SUBGROUP 33- MAGNETIC RESONANCE IMAGING – FOR SPECIFIED CONDITIONS – PERSON UNDER THE AGE OF 16YRS	SUBGROUP 33- MAGNETIC RESONANCE IMAGING – FOR SPECIFIED CONDITIONS – PERSON UNDER THE AGE OF 16YRS
referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of knee for a patient under 16 years following radiographic examination for internal joint derangement	referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of knee for a patient under 16 years

#### 5.3.1 Rationale

The recommendation for the removal of mandatory radiographic examination is to avoid radiation exposure and associated radiography costs, particularly in the setting of suspected acute anterior cruciate ligament or meniscal injury in children who do not require preliminary plain radiography (x-rays) before MRI.

## 5.4 Recommendation 2 – MRI Items 63560, 63561

### 5.4.1 Recommendation 2

- △ Introduction of the principal of an additional age cut-off for knee MRI referrals (N.B. segregation into over and under 16 years of age is currently part of the MBS) to provide separate descriptors and/or restrictions for patients under and over 50 years.
- △ Restrict the number of GP-referred MRIs to three per annum.
- △ An intensive education program for GPs, radiologists, and consumers on the Medicare item descriptors and clinical indications for knee imaging.
- △ Review and audit activities for GPs and radiologists 12 months post implementation to ensure the criteria for knee imaging are met.

### 5.4.2 Rationale for the Introduction of the principal of an age cut off for knee MRI referrals

- △ Remove the ability for a GP to request MRIs for patients  $\geq 50$  years of age from the MBS, but retain specialist requesting for any age group.

There is a concern about inappropriate use of item 63560 as there is a high volume performed in patients over 65 (Figure 1) who often have coexistent symptoms of osteoarthritis that can be difficult to distinguish from those of meniscal tear and incidental meniscal tears which are common in elderly patients with osteoarthritis. This can lead to the erroneous assumption that the meniscal tear revealed by MRI in an older person with knee osteoarthritis symptoms is responsible for the patient's symptoms, when this is not the case.

The Committee considered two options to address the principal of an additional age cut-off for knee MRI referrals.

1. To retain the MBS item for patients  $\geq 50$  with the descriptor to state:  
  
Referral by a medical practitioner (excluding a specialist consultant or physician) for a patient 50 years or older with suspected meniscal tear or ACL injury, if surgery is being considered in consultation with a specialist who is not a radiologist.

OR

2. To remove the ability for a GP to request MRIs for patients  $\geq 50$  from the MBS schedule.

The Committee was unable to decide between the two options. The Taskforce's preference is for a specific recommendation for public consultation, rather than two options. Following consideration of the options the Taskforce made the following recommendation:

To remove the ability for a GP to request MRIs for patients  $\geq 50$  years of age from the MBS, but retain specialist requesting for any age group.

### 5.4.3 Recommendation 2.1

### 5.4.4 Restrict the number of GP-referred MRIs to three per annum

- △ It was noted that currently there is no restriction on the number of MRI of the knee that a GP can request, and that specialists are currently restricted to three referrals per annum per patient. In attempt to promote appropriate utilisation of GP requested MRI of the knee, it was recommended that GP referred MRI be restricted to three referrals per annum per patient. Any further MRI should be requested by a specialist if the referral falls within the 12 month period after the initial GP referred MRI.

Table 5: Current and proposed item descriptor for items 63560 and 63561

Current item descriptor	Proposed new item descriptor
referral by a medical practitioner (excluding a specialist consultant or physician) for a scan of knee following acute knee trauma for a patient 16 years or older with:	<i>NOTE: Benefits are payable for each service included on three occasions only in any 12 month period</i>
inability to extend the knee suggesting possibility of acute meniscal tear (R)/(NK) (Contrast) (Anaes); or	referral by a medical practitioner (excluding a specialist consultant or physician) for a scan of knee following acute knee trauma for a patient 16–49 years old with:
clinical findings suggesting acute anterior cruciate ligament tear. (R)/(NK) (Contrast) (Anaes).	inability to extend the knee suggesting possibility of acute meniscal tear (R) <b>(NK)</b> (Contrast) (Anaes); or
	clinical findings suggesting acute anterior cruciate ligament tear. (R) <b>(NK)</b> (Contrast) (Anaes).

### 5.4.5 Summary of governance and education of practitioners, patients and the public

- △ More intensive programs to educate GPs and patients regarding the specific circumstances in which GPs may refer a patient for knee MRI.
- △ Greater penetration of educational strategies already undertaken by RACGP and RANZCR relating to history and examination findings in patients with acute ACL and meniscal tears are required to improve adherence to evidence-based referral item descriptors.
- △ Electronic decision support at the point of care (when the referral is generated) that is a seamless part of the test requesting process in addition to points 1, 2, and 3 above would support appropriate referrals.
- △ While test substitution by radiology practices (i.e. MRI instead of ultrasound for patients with suspected ACL or meniscal injuries) could reduce inappropriate use of low-utility tests, correct test choice in the first place, by the referrer themselves, is likely to be more efficient and more acceptable to patients, and thus should be the preferred option.

An educational program funded by the Commonwealth and delivered by NPS is required regarding:

- △ the low utility of MRI for the specific purpose of identifying a symptomatic meniscal tear in an older patient with symptomatic knee osteoarthritis;
- △ the increasing frequency of ‘incidental’ meniscal tears and meniscal degeneration with advancing age. Such tears and degeneration are not necessarily symptomatic or the cause of knee pain when pain is present.

#### 5.4.6 Review and audit activities for GPs and radiologists

- △ More frequent and extensive auditing of the clinical indication for GP-referred knee MRI. Feedback from such audits, i.e. consistency of the referral with Medicare rules, should be provided to both the referrer and the radiology practice.

#### 5.4.7 Rationale

The recommendations on governance and education of practitioners, patients and the public and review and audit activities for GPs and radiologists, focus on improving the value of diagnostic knee MRI performed by GPs in accordance to current evidence and encouraging best practice. The recommendations attempt to reduce the utilisation of inappropriate use of GP requested knee MRI in older patients. They are based on the following observations:

- △ MRI is a highly accurate and high-utility test for diagnosing or excluding acute meniscal tear and/or anterior cruciate ligament rupture in younger patients.
- △ A high volume of GP-referred knee MRI services was observed (approximately 12,000 in patients >70 years and 66,000 services in patients > 50 years)<sup>7</sup>
- △ Annual growth in non-GP specialist referred MRI for 2010 –11 and 2011 – 2012 was 4% for the under 50 age group and 7% for the over 50 age group.<sup>7</sup>
- △ For adult patients (aged over 16 but under 50) growth in GP referred MRI (extrapolating from data for 2013-14 half year growth) was 32% p.a. for patients under 50 and 35% for over 50 age group.<sup>7</sup> This growth rate is very high, particularly in the over 50 age group where the utility of MRI diminishes with age.
- △ GP referred knee MRI was introduced in November 2013 to increase patient access to MRI under certain requisites such as age over 16 and clinical evidence suggesting anterior cruciate ligament and/or meniscal tear. Medicare data showed that approximately 22,000 non-GP specialist referred MRIs were prevented by performing 91,953 GP specialist - referred MRIs in patients under 50 years, and 14,000 non-GP specialist referred MRIs would have been prevented performing 65,931 GP specialist - referred MRIs in patients in the 2014-15 financial year<sup>7</sup>.
- △ Therefore, the number of GP – referred knee MRI services that are required to “prevent” one non GP specialist MR service is similar in the over and under 50 year old age group and is between 4.2 and 4.6 GP referred knee MRI services.
- △ Expansion of referral privileges to GP specialists has been associated with reduction in non-GP specialist referrals and the reduction per GP referral is much greater for the under 50 age group. However, this reduction has been insufficient to prevent overall growth in referrals of adults and children for knee MRI.
- △ Medicare data reflected that patients over 50 are more likely to see an orthopaedic surgeon after GP referred MRI (> 50: 66.9% vs <50:46.9%) but are somewhat less likely to receive arthroscopy than patients under 50 (> 50: 35% vs <50:41%)<sup>7</sup>.
- △ The Royal Australian College of General Practitioners (RACGP) guidelines for referral for MRI state:
  - MRI is indicated in the assessment of anterior cruciate ligament (ACL) injuries, but is not always necessary if the clinical diagnosis is clear.

- MRI is indicated for assessment of meniscal tears, but is not always necessary if a clear clinical diagnosis of meniscal tear has been made.
  - Use MRI particularly in situations where there is doubt about diagnosis or patient management.
  - Do not use MRI for the diagnosis of isolated medial collateral ligament injuries, except where there is concern about alternative pathology or if symptoms fail to settle after 6–8 weeks.
  - Further testing is not immediately needed in patients with knee injury who have negative physical examination findings, although close follow-up is required.
- △ MRI has low utility with regard to subsequent clinical decision making in patients who are thought to have symptomatic knee osteoarthritis. Therefore, potential reason for unnecessary knee MRI derives from the incorrect attribution of knee symptoms to meniscal tear in patients with symptomatic knee osteoarthritis, particularly in older adults.
- △ MRI does identify meniscal tears in older adults. These may be asymptomatic or may not be a significant contributor to knee pain in older individuals with knee pain. Where osteoarthritis may also be present in cases of acute trauma and symptomatic meniscal tears of the knee, including an age cut-off in the item descriptor will require GPs to follow a structured process to determine whether osteoarthritis is present for patients aged  $\geq 50$ . This may have a significant positive effect on improving the cost-effectiveness of current practice.
- △ Age cut-off of 50 years was recommended on the basis that GPs would see more patients older than 50 presenting with knee pain than patients under 50; and the test is less useful for preventing referrals in patients over 50 than under 50 in whom ‘incidental knee pain’ (such as that due to osteoarthritis) is less common.
- △ Most meniscal tears in adults are not preceded by an identifiable incident of acute trauma. The standard care approach to symptoms due to possible meniscal tear in this situation is initially to provide non-operative care depending on age group, then surgery if required. It is appropriate to undertake watchful waiting for some patients with suspected meniscal tears, depending on their symptoms and signs and then refer them for MRI if required. Reference to ‘acute symptoms’ in the descriptor for MRI in patients  $> 50$  years old may lead GPs to request MRI in the first instance, bypassing the watchful wait stage, making it counterproductive.
- △ Introducing the requirement of a specialist consultation, where consultation and collaboration with specialists can be done in regard to discussing the clinical history of a patient may result in more appropriate GP-referred knee MRI in patients over 50 and further promote the quality use of this test.
- △ An electronic MBS item requesting system is likely to direct GPs to state the relevant condition because of the requirement to complete mandatory fields of an electronic request.
- △ Providing education to consumers about the specific conditions covered by the Medicare rebate for GP referred knee MRI may reduce GP pressure for knee MRI requests from patients.



## 5.5 Recommendations impact statement

Changes to items 63513 and 63514 to remove the requirement of a plain radiography before MRI is expected to have a positive impact on patients. This is likely to minimise radiation exposure.

Including an upper-limit age restriction will minimise unnecessary requests for MRI of the knee in patients who do not have a meniscal tear or ACL injury.

Education should be delivered to providers, as these changes also have an impact on provider behaviour change in clinical practice.

## 6. MBS Item Group 2: Ultrasound of the knee

### 6.1 Items considered in this section

The items listed in Table 6 are considered in this section.

Table 6: Item descriptor

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#### Common MBS item descriptor

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Note: Benefits are only payable when referred based on the clinical indicators outlined in the item descriptions. Benefits are not payable when referred for non-specific knee pain alone or other knee condition including:

- meniscal and cruciate ligament tears
- assessment of chondral surface.

KNEE, 1 or both sides, ultrasound scan of, where:

(a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and

(b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member,

and where the service is provided for the assessment of one or more of the following conditions or suspected conditions: abnormality of tendons or bursae about the knee; or meniscal cyst, popliteal fossa cyst, mass or pseudomas; or nerve entrapment, nerve or nerve sheath tumour; or injury of collateral ligaments.

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Item	Specifier	Fee
55828	R	Fee: \$109.10 Benefit: 75% = \$81.85 85% = \$92.75
55829	R NK	Fee: \$54.55 Benefit: 75% = \$40.95 85% = \$46.40
55830	NR	Fee: \$37.85 Benefit: 75% = \$28.40 85% = \$32.20
55831	NR NK	Fee: \$18.95 Benefit: 75% = \$14.25 85% = \$16.15

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### 6.2 Issues identified

Ultrasound is a low-clinical-utility examination in diagnosing the cause of symptomatic knee pain in the context of suspected meniscal, articular cartilage or cruciate ligament injury. It is an accurate means of diagnosing a suspected Baker's cyst or to confirm a joint effusion or patellar tendon tear when this is clinically uncertain.

While the current descriptor excludes ultrasound imaging for meniscal and cruciate ligament tears, it includes the indication of collateral ligament injury.

## 6.3 Recommendation 3

Remove the indication of ‘injury of collateral ligaments’ from the current descriptor for items 55828, 55829, 55830 and 55831.

Table 7: Current and proposed item descriptors

Current item descriptor	Proposed new item descriptor
<p><i>Note: Benefits are only payable when referred based on the clinical indicators outlined in the item descriptions. Benefits are not payable when referred for non-specific knee pain alone or other knee condition including:</i></p> <ul style="list-style-type: none"> <li>• <i>meniscal and cruciate ligament tears</i></li> <li>• <i>assessment of chondral surface.</i></li> </ul> <p>KNEE, 1 or both sides, ultrasound scan of, where:</p> <p>(a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and</p> <p>(b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member,</p> <p>and where the service is provided for the assessment of one or more of the following conditions or suspected conditions: abnormality of tendons or bursae about the knee; or meniscal cyst, popliteal fossa cyst, mass or pseudomass; or nerve entrapment, nerve or nerve sheath tumour; or injury of collateral ligaments.</p>	<p><i>Note: Benefits are only payable when referred based on the clinical indicators outlined in the item descriptions. Benefits are not payable when referred for non-specific knee pain alone or other knee condition including:</i></p> <ul style="list-style-type: none"> <li>• <i>meniscal and cruciate ligament tears</i></li> <li>• <i>assessment of chondral surface.</i></li> </ul> <p>KNEE, 1 or both sides, ultrasound scan of, where:</p> <p>(a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and</p> <p>(b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member,</p> <p>and where the service is provided for the assessment of one or more of the following conditions or suspected conditions: abnormality of tendons or bursae about the knee; or meniscal cyst, popliteal fossa cyst, mass or pseudomass; or nerve entrapment, nerve or nerve sheath tumour.</p>

### 6.3.1 Rationale

The recommendation focused on improving the quality use of ultrasound imaging and was based on the following observations:

- △ Ultrasound is equally accurate to MRI in the assessment of collateral ligaments, quadriceps, patellar tendons and popliteal fossa, and will generally be more accessible than MRI.<sup>6</sup>
- △ Diagnosis of collateral ligament injury severity with imaging does not generally change treatment.
- △ The RACGP has not developed specific guidelines for use of ultrasound of the knee but do state that ultrasound is not recommended for evaluation of menisci or cruciate ligament injuries.<sup>8</sup>

## 6.4 Recommendations impact statement

Recommendation 3 is not likely to have an impact on patients.

The impact to providers is considered to be minimal.

## 7. MBS Item Group 3: X-ray of the knee

### 7.1 Items considered in this section

The items listed in Table 8 are considered in this section.

Table 8: Item descriptor

GROUP I3 – DIAGNOSTIC RADIOLOGY		
SUBGROUP 1 – RADIOGRAPHIC EXAMINATION OF EXTREMITIES		
Common MBS item descriptor		
FOOT, ANKLE, LEG, KNEE OR FEMUR		
Item	Specifier	Fee
57518	NR	Fee: \$32.50 Benefit: 75% = \$24.40 85% = \$27.65
57521	R	Fee: \$43.40 Benefit: 75% = \$32.55 85% = \$36.90
57535	NR NK	Fee: \$37.85 Benefit: 75% = \$28.40 85% = \$32.20
57536	R NK	Fee: \$65.75 Benefit: 75% = \$49.35 85% = \$55.90
Common MBS item descriptor		
FOOT AND ANKLE, OR ANKLE AND LEG, OR LEG AND KNEE, OR KNEE AND FEMUR		
Item	Specifier	Fee
57524	NR	Fee: \$49.40 Benefit: 75% = \$37.05 85% = \$42.00
57527	R	Fee: \$65.75 Benefit: 75% = \$49.35 85% = \$55.90
57538	NR NK	Fee: \$24.70 Benefit: 75% = \$18.55 85% = \$21.00
57539	R NK	Fee: \$32.90 Benefit: 75% = \$24.70 85% = \$28.00

### 7.2 Issues identified

Insufficient granularity of Medicare data items does not allow utilisation of plain radiography of the knee to be determined.

### 7.3 Recommendation 4

Separate the MBS items for the knee from the current X-ray items, which encompass foot, ankle, leg, knee or femur.

Table 9: New proposed item descriptor

Item descriptor
X-ray of the knee

### 7.3.1 Rationale

The recommendation focuses on obtaining granularity of Medicare data. It was based on the following observations:

- △ There are no specific MBS items for X-ray of the knee. Therefore it is not possible to identify the number of X-ray services performed specifically for the knee.
- △ The BEACH data<sup>9</sup> indicated that the proportion of knee X-rays of the total services claimed against the MBS items for X-rays for foot, ankle, leg, knee and/or femur requested by GPs has remained stable before and after the introduction of GP-requested knee MRI (40% vs 38%)<sup>7</sup>.

### 7.4 Recommendations impact statement

Recommendation 4 is not expected to have any impact on patients.

Providers will be required to use a different MBS item for X-ray of the knee and are expected to be aware of this recommendation.

## 8. MBS Item Group 4: CT of the knee

### 8.1 Items considered in this section

The items listed in Table 10 are considered in this section.

Table 10: Item descriptor

Common MBS item descriptor		
COMPUTED TOMOGRAPHY – scan of extremities, 1 or more regions without intravenous contrast medium, payable once only whether 1 or more attendances are required to complete the service (Anaes.)		
Item	Specifier	Fee
56619	R K	Fee: \$220.00 Benefit: 75% = \$165.00 85% = \$187.00
56659	R NK	Fee: \$112.10 Benefit: 75% = \$84.10 85% = \$95.30

Common MBS item descriptor		
COMPUTED TOMOGRAPHY – scan of extremities, 1 or more regions with intravenous contrast medium and with any scans of extremities prior to intravenous contrast injection, when undertaken; only 1 benefit is payable whether 1 or more attendances are required to complete the service (Anaes.)		
Item	Specifier	Fee
56625	R K	Fee: \$334.65 Benefit: 75% = \$251.00 85% = \$284.50
56665	R NK	Fee: \$167.40 Benefit: 75% = \$125.55 85% = \$142.30

### 8.2 Issues identified

Interpretation of the MBS data for knee CT is complicated by the item descriptors available for this test. Items 56619, 56625, 56659 and 56665 are used to claim for ‘CT scan of extremities’.

The proportion of knee CT of the total services claimed against the MBS items for CT of extremities requested by GPs has declined after the introduction of GP-requested knee MRI (28.5% vs 18.5%)<sup>7</sup>.

### 8.3 Recommendation 5

Separate the MBS items for the knee from the current CT items, which encompass all extremities.

Table 11: Current and proposed item descriptors

Current item descriptor	Proposed new item descriptor
COMPUTED TOMOGRAPHY - scan of extremities, <i>excluding knee</i> , 1 or more regions without intravenous contrast medium, payable once only whether 1 or more attendances are required to complete the service (Anaes.)	COMPUTED TOMOGRAPHY - scan of <del>extremities</del> <i>the knee</i> , 1 or more regions without intravenous contrast medium, payable once only whether 1 or more attendances are required to complete the service (Anaes.)

### 8.3.1 Rationale

The recommendation focuses on obtaining granularity of Medicare data. It was based on the following observations:

- △ There are no specific CT items for the knee. Therefore it is not possible to identify the number of CT scans performed specific for the knee.
- △ CT of the knee is most useful in patients who:
  - require planning for operative stabilisation of complex fractures demonstrated by a plain radiograph series
  - are suspected of having a bone tumour or infection relating to the knee.
- △ The appropriate use of CT imaging cannot be evaluated from current MBS data, for example whether patients undergoing knee CT had already undergone knee X-ray.

### 8.4 Recommendations impact statement

Recommendation 5 is not expected to have any impact on patients.

Providers will be required to use a different MBS items for CT of the knee and are expected to be aware of this recommendation.

## 9. Conclusion

The Committee respectfully submits its recommendations for consultation in the hope that they improve access to affordable, best-practice health services and help to ensure high-value care for patients and the healthcare system. It welcomes any feedback or comments on the recommendations, particularly if any of the recommendations appear contrary to this aspiration.



## 10. References

This contains references to sources and materials referenced in this report.

1. Elshaug A (Menzies C for HP. Appropriate Use Criteria. 2016.
2. American Medical Society for Sports Medicine. Choosing Wisely: Five Things Physicians and Patients Should Question. 2014. (accessed 16 August 2016).
3. National Institute for Health and Care Excellence (NICE UK). Osteoarthritis: care and management. Do Not Do recommendations and clinical guidance. 2014;
4. Amber M Watt Adam G Elshaug, Linda Mundy and Cameron D Willis. Over 150 potentially low-value health care practices: an Australian study. *The Medical Journal of Australia* 2012;197:556-60.
5. The Australian Commission on Quality and Safety in Health Care's (ACQSHC). Atlas of Clinical Variation. 2015;
6. The Royal Australian College of General Practitioners (RACGP). MRI of the knee. *J Australian Family Physician* 2012;41:867-69.
7. Department of Health. Various Medicare Australia Data Medicare Australia 2016.
8. Royal Australian College of General Practitioners. Clinical guidance for MRI referral. 2013;
9. Miller GC Britt H, Henderson J, Bayram C, Harrison C, Valenti L, Wong C, Gordon J, Pollack AJ, Pan Y, Charles J. General practice activity in Australia 2013–14. 2014.  
[https://ses.library.usyd.edu.au/bitstream/2123/11882/4/9781743324226\\_ONLINE.pdf](https://ses.library.usyd.edu.au/bitstream/2123/11882/4/9781743324226_ONLINE.pdf)  
(accessed 16 August 2016).

## 11. Acronyms and Abbreviations

<b>Term</b>	<b>Description</b>
ACL	Anterior cruciate ligament
CT	Computed tomography
MBS	Medicare Benefits Schedule
MRI	Magnetic resonance imaging
RACGP	Royal Australian College of General Practitioners
The Committee	The Diagnostic Imaging Clinical Committee
The Working Group	The Knee Imaging Working Group
US	Ultrasound

## 12. Glossary

Term	Description
BEACH	Bettering the Evaluation and care of Health
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 that evidence suggests confers no, or very little, benefit on patients, or for which the risk of harm exceeds the likely benefit, or, more broadly, for which 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 or test to which the relevant MBS item refers.
MSAC	Medical Services Advisory Committee
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.
PBS	Pharmaceutical Benefits Scheme

## Appendix A Full list of items: Recommendations list

Table A: MRI of the knee

Item	Item Description	Recommendation	Page reference
63328	NOTE: Benefits are payable for each service included by Subgroup 12 on three occasions only in any 12 month period  MAGNETIC RESONANCE IMAGING performed under the professional supervision of an eligible provider at an eligible location where the patient is referred by a specialist or by a consultant physician – scan of musculoskeletal system for:  derangement of knee or its supporting structures (R)	No change	18
63343	NOTE: Benefits are payable for each service included by Subgroup 12 on three occasions only in any 12 month period  MAGNETIC RESONANCE IMAGING performed under the professional supervision of an eligible provider at an eligible location where the patient is referred by a specialist or by a consultant physician – scan of musculoskeletal system for:  – derangement of knee or its supporting structures (R) <b>(NK)</b>	No change	18
63513	SUBGROUP 33- MAGNETIC RESONANCE IMAGING – FOR SPECIFIED CONDITIONS – PERSON UNDER THE AGE OF 16YRS  referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of knee for a patient under 16 years following radiographic examination for internal joint derangement (R) (Contrast) (Anaes.)	Change	18
63514	SUBGROUP 33- MAGNETIC RESONANCE IMAGING – FOR SPECIFIED CONDITIONS – PERSON UNDER THE AGE OF 16YRS  referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of knee for a patient under 16 years following radiographic examination for internal joint derangement (R) <b>(NK)</b> (Contrast) (Anaes.)	Change	18
63560	SUBGROUP 34 – MAGNETIC RESONANCE IMAGING – FOR SPECIFIED CONDITIONS  referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of knee following acute knee trauma for a patient 16 years or older with:  – inability to extend the knee suggesting the possibility of acute meniscal tear (R) (Contrast) (Anaes.); or  – clinical findings suggesting acute anterior cruciate ligament tear. (R) (Contrast) (Anaes.)	Change	19

<b>63561</b>	<p>SUBGROUP 34 – MAGNETIC RESONANCE IMAGING – FOR SPECIFIED CONDITIONS</p> <p>referral by a medical practitioner (excluding a specialist or consultant physician) for a scan of knee following acute knee trauma for a patient 16 years or older with:</p> <ul style="list-style-type: none"> <li>– inability to extend the knee suggesting the possibility of acute meniscal tear (R) <b>(NK)</b> (Contrast) (Anaes.); or</li> <li>– clinical findings suggesting acute anterior cruciate ligament tear. (R) <b>(NK)</b> (Contrast) (Anaes.)</li> </ul>	Change	19
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*Table B: Ultrasound of the knee*

**Common MBS item descriptor**

Note: Benefits are only payable when referred based on the clinical indicators outlined in the item descriptions. Benefits are not payable when referred for non-specific knee pain alone or other knee condition including:

- meniscal and cruciate ligament tears
- assessment of chondral surface

KNEE, 1 or both sides, ultrasound scan of, where:

- (a) the service is not associated with a service to which an item in Subgroups 2 or 3 of this Group applies; and
  - (b) the referring practitioner is not a member of a group of practitioners of which the providing practitioner is a member,
- and where the service is provided for the assessment of one or more of the following conditions or suspected conditions: abnormality of tendons or bursae about the knee; or meniscal cyst, popliteal fossa cyst, mass or pseudomass; or nerve entrapment, nerve or nerve sheath tumour; or injury of collateral ligaments.

<b>Item</b>	<b>Specifier</b>	<b>Recommendation</b>	<b>Page reference</b>
55828	R	Change	25
55829	R NK	Change	25
55830	NR	Change	25
55831	NR NK	Change	25

Table C: X-ray of the knee

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**Common MBS item descriptor**

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FOOT, ANKLE, LEG, KNEE OR FEMUR

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Item	Specifier	Recommendation	Page reference
57518	NR	Change	27
57521	R	Change	27
57535	NR NK	Change	27
57536	R NK	Change	27

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**Common MBS item descriptor**

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FOOT AND ANKLE, OR ANKLE AND LEG, OR LEG AND KNEE, OR KNEE AND FEMUR

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Item	Specifier	Recommendation	Page reference
57524	NR	Change	27
57527	R	Change	27
57538	NR NK	Change	27
57539	R NK	Change	27

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Table D: CT of the knee

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**Common MBS item descriptor**

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COMPUTED TOMOGRAPHY - scan of extremities, 1 or more regions without intravenous contrast medium, payable once only whether 1 or more attendances are required to complete the service (Anaes.)

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Item	Specifier	Recommendation	Page reference
56619	R K	Change	29
56659	R NK	Change	29

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**Common MBS item descriptor**

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COMPUTED TOMOGRAPHY – scan of extremities, 1 or more regions with intravenous contrast medium and with any scans of extremities prior to intravenous contrast injection, when undertaken; only 1 benefit is payable whether 1 or more attendances are required to complete the service (Anaes.)

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Item	Specifier	Recommendation	Page reference
56625	R K	Change	29
56665	R NK	Change	29

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## Appendix B Summary for consumers

This section includes tables which describe the medical service, the recommendation(s) of the clinical experts and why the recommendation(s) has been made.

### *Recommendation 1*

Item	What it does	Committee recommendation	What would be different	Why
63513 and 63514	A MRI scan of the knee.	Remove the current requirement of mandatory plain radiography before an MRI in patients under the age of 16 years.	Likely to reduce unnecessary x-ray radiation in children.	To avoid radiation exposure and associated radiography costs in children who do not require preliminary plain radiography (x-rays) before MRI.

### *Recommendation 2 and 2.1*

Item	What it does	Committee recommendation	What would be different	Why
63560 and 63561	A MRI scan of the knee.	Introduction of an additional age cut-off for GP knee MRI referrals for patients over 50 years.	GPs will no longer be able to request MRI of the Knee for patients over 50 years. Patients over 50 will still be able to be undertake an MRI of the knee through a request from a medical specialist (other than a radiologist).	MRI has low utility in patients over 50 years and also with regard to subsequent clinical decision making in patients who are thought to have symptomatic knee osteoarthritis.
		Restrict the number of GP-referred MRIs to three per annum per patient.	Any further MRI (> 3) will need to be requested by a specialist if the referral falls within the 12 month period.	To improve appropriate utilisation of GP requested MRI of the knee.



**Recommendation 3**

Item	What it does	Committee recommendation	What would be different	Why
55828, 55829, 55830 and 55831	Ultrasound of the knee.	Remove the indication of 'injury of collateral ligaments' from the current descriptor.	This item can no longer be used to examine injuries of collateral ligaments.	A low-clinical-utility examination in diagnosing the cause of symptomatic knee pain in the context of suspected meniscal, articular cartilage or cruciate ligament injury.

**Recommendation 4**

Item	What it does	Committee recommendation	What would be different	Why
57518, 57521, 57535 and 57536	X-ray of the foot, ankle, leg, knee or femur.	Separate the MBS items for the knee from the current X-ray items, which encompass foot, ankle, leg, knee or femur.	Requestors are to use a different item number for X-ray of the knee only.	Currently, it is not possible to identify the number of X-ray services performed specifically for the knee. Separating the knee will allow usage to be monitored.

**Recommendation 5**

Item	What it does	Committee recommendation	What would be different	Why
56619, 56625, 56659 and 56665	CT scan of extremities.	Separate the MBS items for the knee from the current CT items.	Requestors are to use a different item number for a CT scan of the knee only.	There are no specific CT items for the knee. Therefore it is not possible to identify the number of CT scans performed specific for the knee. Separating the knee will allow usage to be monitored.