
1360

Final Protocol to
guide the assessment
of asynchronous
specialist
dermatology services
delivered by
telecommunications

May 2014

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MSAC and PASC

The Medical Services Advisory Committee (MSAC) is an independent expert committee appointed by the Minister for Health and Ageing (the Minister) to strengthen the role of evidence in health financing decisions in Australia. MSAC advises the Minister on the evidence relating to the safety, effectiveness, and cost-effectiveness of new and existing medical technologies and procedures and under what circumstances public funding should be supported.

The Protocol Advisory Sub-Committee (PASC) is a standing sub-committee of MSAC. Its primary objective is the determination of protocols to guide clinical and economic assessments of medical interventions proposed for public funding.

Purpose of this document

This document is intended to provide a draft decision analytic protocol that will be used to guide the assessment of an intervention for a particular population of patients. The draft protocol will be finalised after inviting relevant stakeholders to provide input to the protocol. The final protocol will provide the basis for the assessment of the intervention.

The protocol guiding the assessment of the health intervention has been developed using the widely accepted "PICO" approach. The PICO approach involves a clear articulation of the following aspects of the question for public funding the assessment is intended to answer:

- P**atients – specification of the characteristics of the patients in whom the intervention is to be considered for use
- I**ntervention – specification of the proposed intervention and how it is delivered
- C**omparator – specification of the therapy most likely to be replaced by the proposed intervention
- O**utcomes – specification of the health outcomes and the healthcare resources likely to be affected by the introduction of the proposed intervention

Summary of matters for consideration by PASC

PASC requests a submission address the following matters in relation to asynchronous specialist dermatology consultation in patients with inflammatory skin conditions and skin lesions.

- The proposed service involves the transfer of confidential patient data and digital images via the internet to the specialist dermatologist. Consultation is required about what is the recommended type of encryption required for transferring this type of sensitive data. Would failure to meet this standard be a barrier to a referrer and/or patient using this service?
- Eligibility criteria for telehealth items do not include people with disabilities. The proposed service requests an extension of eligible people for the service to people living in outer metropolitan areas where specialist dermatologists are scarce and to people with disabilities. Consultation is requested on how people with disabilities may be defined for the purpose of eligibility for this service.
- What is the recommended type of encryption required for transferring sensitive data. Would failure to meet this standard be a barrier to a referrer and/or patient using this service?

Purpose of application

A proposal for an application requesting MBS listing of specialist dermatology services delivered by asynchronous store and forward technology for inflammatory skin conditions was received from Australasian College of Dermatologists by the Department of Health and Ageing in May 2013

The application relates to a new approach to providing specialist dermatology services. The application of store and forward technology enables patients who currently do not have access, or do not have timely access, due to geographical or physical impediments, to receive specialist dermatology services via an asynchronous consultation and support of other health practitioners. As it is the current telecommunications system that allows for the provision of asynchronous consultations and not the store and forward technology per se, the application has been renamed to the assessment of asynchronous specialist dermatology services delivered by telecommunications.

The Deakin Health Technology Assessment Group, under its contract with the Department of Health and Ageing, drafted this decision analytical protocol to guide the preparation of an assessment of the safety, effectiveness and cost-effectiveness of asynchronous specialist dermatology services delivered by telecommunications for inflammatory skin conditions and skin lesions to inform MSAC's decision-making regarding public funding of the intervention.

Background

Current arrangements for public reimbursement

Table 1 summarises the current MBS items available for specialist consultations including dermatology.

On 1 July 2011, Medicare rebates and financial incentives for specialist video consultations were introduced to address some of the barriers to accessing medical services, particularly specialist services, for Australians in remote, regional and outer metropolitan areas. In many cases, these telehealth consultations provide patients in eligible areas with access to specialists sooner than would otherwise be the case and without the time and expense involved in travelling to major cities.

New Medicare Benefits Schedule (MBS) items were introduced to provide for telehealth consultations rendered by specialists, consultant physicians and consultant psychiatrists. These items allow a range of existing MBS attendance items to be provided via video conferencing, with a derived fee adding to the base item fee.

New MBS items were also introduced for Patient-end Services. These items enable GPs, other medical practitioners, nurse practitioners, midwives, Aboriginal health workers and practice nurses to provide face-to-face clinical services to the patient during the consultation with the specialist.

Telehealth MBS items may be billed where a specialist consultation is conducted via video conferencing with a patient who is:

- not an admitted patient; and
- is eligible for Medicare rebates; and

- located in an Eligible Geographical Area (see www.mbsonline.gov.au/telehealth); or
- a care recipient at an eligible Residential Aged Care Facility (RACF); or
- in an eligible Aboriginal Medical Service (AMS)ⁱ.

The geographic eligibility criteria for telehealth Medicare Benefits Schedule (MBS) items changed from 1 January 2013 to align eligibility to the MBS telehealth items with the Australian Standard Geographical Classification Remoteness Area (ASGC-RA) used by the Australian Bureau of Statistics. Under the new restrictions GPs and specialists will no longer be able to claim MBS telehealth item numbers for outer metropolitan areas. The item numbers only apply to services for patients of an Aboriginal Medical Service or a residential aged care facility in outer metropolitan areas from January 1, 2013. Rural and remote telehealth provision remains unaffected. The application has requested that the original 2011 MBS Geographic Regions for Videoconferencing be included as a subgroup of the population, to include patients who have difficulty accessing services from outer metropolitan regions (a lack of specialist dermatologists in this area, and difficulty for people with disabilities travelling are the reasons provided for inclusion).

Appendix 1 summarises the current MBS Telehealth items for videoconferencing by which specialist dermatology services can be delivered by synchronous telecommunication. There are no MBS items available for providing asynchronous specialist dermatology consultations delivered by telecommunications.

Teledermatology has been used by dermatologists in Australia since the mid-1990's to assist in clinical education and to provide access to dermatology services to underserved communities. TeleDerm was established by the Australian College of Rural and Remote Medicine (ACRRM) in 2004 and there have been services provided in NSW and in WA^{ii,iii,iv}.

According to the application, specialist dermatology services receive other public funding, both state and Federal. For example Queensland Health funds the Far North Queensland and Torres Strait Program that is part of the Princess Alexandra Hospital (PAH) Outreach Teledermatology Network operated by its dermatology department as part of the Princess Alexandra Hospital Online project. Free specialist dermatology services funded by Queensland Health are provided for residents of Northern Queensland and the Torres Strait using store and forward technology. The registrar on call at the PAH takes on the case and is supervised by a consultant.

The Australian College of Rural and Remote Medicine (ACRRM) TeleDerm program is funded by the Australian Government Department of Health and Ageing under the Medical Specialist Outreach Assistance Program (MSOAP)¹.

The TeleDerm program is an online resource designed primarily for rural doctors interested in obtaining practical advice on the diagnosis and management of skin disease in general practice.

¹ MSOAP and Visiting Optometrists Scheme (VOS) are two programs implemented to overcome some specific barriers faced by people living in rural and remote Australia. The programs are specifically targeted at facilitating access by people living in these communities to medical specialist and optometry services. They are administrated separately, but have overlapping reach.

Access to the program is free for ACRRM members, RRMEO subscribers and GPs who work in rural Australia. GPs are able to access online dermatological case studies, education opportunities, recommended links, and discussion forums. Subscribers can submit a digital photo of affected skin and a history (and diagnosis, if made) through the ACRRM portal. An experienced dermatologist will examine the evidence, and reports back to the medical practitioner - usually within two days - with diagnosis and/or treatment options. TeleDerm also allows rural doctors anywhere in Australia to electronically submit specific de-identified cases for assessment.

The features and benefits of TeleDerm are described on the ACRRM website as:

- Receive a diagnosis on your cases from an expert dermatologist within 48 hours.
- Access online cases and discussion forums to increase clinical knowledge and confidence in managing skin conditions.
- Save patients the worry of long waiting times and the expense of travelling to specialist appointments.
- Start treatment or remedial action sooner^v.

Table 1 shows the current MBS items available for specialist consultations including dermatology.

Table 1: Current MBS item descriptor for MBS items used to deliver specialist dermatology consultations

Category 1 – Professional attendances	
MBS 104	<p>SPECIALIST, REFERRED CONSULTATION - SURGERY OR HOSPITAL (Professional attendance at consulting rooms or hospital by a specialist in the practice of his or her specialty where the patient is referred to him or her)</p> <p>-INITIAL attendance in a single course of treatment, not being a service to which ophthalmology items 106, 109 or obstetric item 16401 apply.</p> <p>Fee: \$85.55 Benefit: 75% = \$64.20 85% = \$72.75</p> <p>Extended Medicare Safety Net Cap: \$256.65</p>
MBS 105	<p>Each attendance SUBSEQUENT to the first in a single course of treatment</p> <p>Fee: \$43.00 Benefit: 75% = \$32.25 85% = \$36.55</p> <p>Extended Medicare Safety Net Cap: \$129.00</p>

Appendix 1 presents current MBS Telehealth items (99, 113, 2100, 2122, 2125, 2126, 2137, 2138, 2143, 2147, 2179, 2195, 2199, 2220) for videoconferencing by which specialist dermatology services can be delivered in real time via telecommunication.

Table 2 provides utilisation details for current MBS items under which specialist dermatology consultations can be provided.

Table 2: MBS Items-Utilisation Data - June 2012-to July 2013

MBS Item No	State								Total Services
	NSW Services	VIC Services	QLD Services	SA Services	WA Services	TAS Services	ACT Services	NT Services	
104	1747820	1137676	788588	373091	405628	81787	55894	20978	4611462
105	2276504	1589479	1019469	516031	469353	162342	73031	22125	6128334
113	2	2	0	0	2	0	0	0	6
2100	177	55	126	2	49	30	3	1	443
2122	5	0	3	0	1	0	0	0	9
2125	4	0	12	0	0	1	0	0	17
2126	2272	1374	2519	920	1430	719	4	72	9310
2137	43	8	30	5	12	1	0	0	99
2138	8	63	39	8	6	1	0	0	125
99	1553	1559	2350	1145	1021	39	23	256	7946
2143	2099	1184	2132	254	359	731	9	200	6968
2147	24	25	27	5	18	0	0	0	99
2179	19	32	11	3	2	5	1	0	73
2195	2109	508	927	120	70	268	6	42	4050
2199	14	9	21	26	6	0	0	0	76
2220	11	27	8	1	0	0	0	0	47
Total	4,032,664	2,732,001	1,816,262	891,611	877,957	245,924	128,971	43,674	10,769,064

Table 2 summarises the total use of these MBS items. These item reports, however, do not breakdown the data for specialist dermatology consultation, but, the data does indicate that services provided by telehealth are most likely to occur in QLD and NSW which have the highest indigenous population. The data indicates that in spite of NT having the largest indigenous population living in rural and remote regions of Australia^{vi}, and telehealth items were developed to address a lack of access to services for rural and remote Australians, it does not appear, in comparison to the other states figures, that telehealth items have been utilised in any significant way in NT. Given the proposed benefit of the use of telehealth to deliver specialist consultations (though of an synchronous rather than asynchronous type) barriers to telehealth may post the same barriers to asynchronous consultations delivered by telecommunications. Those barriers may be the lack of adequate telecommunications infrastructure in remote areas of Australia to support telehealth initiatives. Expert opinion is that it is difficult coordinating all parties to be in attendance for a consultation (given heavy workloads and time differences between remote areas and specialist practices) and is a major reason for lack of uptake of telehealth items. Additionally, many remote areas lack broadband infrastructure capable of supporting videoconferencing.

Information provided by the applicant indicates that in the 2011-12 financial year specialist dermatologists provided 568,084 item 104 services and 701,304 item 105 items. Of the current Telehealth items, the total number of services for 2011-12 financial year is 697 and for 2012-13 year to date, 1323 (Applicant has sourced this data from MediWiz provided by DoH). DoH provided MBS data show that from 1 July 2013 to 30 September 2013 more than 22 per cent of dermatologists claiming MBS services have provided an MBS telehealth consultation. This was noted to be very high compared with most speciality groups (PASC meeting Policy Area Paper, 12-13 December 2013).

The application indicates that in the previous year, 2012, the Princess Alexandra Hospital in Brisbane, undertook 120 store and forward consultations for skin emergency patients in QLD and Northern NSW. This data has been provided from the PAH; a breakdown of the regions involved is provided in attachment A.

For the TeleDerm programs, the application reports that to 30 September 2012, there have been 16,666 services provided to people living in outer regional, remote and very remote areas of Australia (applicant has sourced this data from the ACRRM, as provided to them by DoH). This utilisation data is not been broken down by State or by remoteness index.

Regulatory status

This intervention requires delivery of a consultation service via the telecommunications network and does not require TGA approval.

Intervention

Description

This is a specialist dermatology service delivered using store and forward technology. Store-and-forward services are where patient health care data and digital images (such as digital images of dermatological conditions) are captured, packaged as a case file, and transferred via telecommunication services to a clinician (specialist dermatologist) who then responds with a diagnosis and therapeutic recommendations (asynchronous telecommunication). The key in store-and-forward delivered services is that the patient and the clinician do not need to be present in real time (asynchronous) and the service is delivered by telecommunications.

The equipment required is a digital camera or mobile phone, and the telecommunications requirements are standard broadband internet; though bandwidth requirements are not as high as are necessary for videoconferencing. For this service the patient is referred to a specialist dermatologist by a general practitioner or nurse practitioner. The applicant has indicated that the dermatologist's website would be able to be accessed by smart phone, tablet or fixed computer in any location where there is basic internet access speed. According to the applicant, no special software is required to encrypt and send a patient's clinical information securely. The referrer only requires a standard computer with a major commercial browser, and when the referrer accesses the dermatologist's site and uploads information it is sent under encryption established by the dermatologist's site.

The application states that specialist dermatology services delivered by asynchronous store and forward technology are applicable skin lesions, including skin cancer management, and inflammatory skin conditions including, eczema, psoriasis, acne, bacterial impetigo, Kaposi sarcoma, varicelliform eruption and amoxicillin-induced drug eruption. Skin conditions can be linked with serious complications, which can result in hospitalisation and, very uncommonly, death. During June 2006-July 2008, skin conditions in indigenous people accounted for around 3.9% of hospital admissions (excluding dialysis), in NSW, Vic, Qld, WA, SA and the NT, at 2.3 times the rate of other people.

In 2007 preventable cancers associated with excessive sun exposure (melanoma) were among the main cancers with significantly higher incidence rates in regional and remote areas in 2001-03 compared with Major Cities. Melanoma death rates for males were 20-30% higher in 2002 and 2003 in Inner Regional and Outer Regional areas than Major Cities^{vii}. An older survey of GPs undertaken in 1998-2000 by the AIHW^{viii} found that:

- Patients in rural and regional areas of Australia have similar rates of attendance at their GP for skin related conditions to those in urban areas;
- Solar keratosis and malignant skin neoplasms were more frequently managed in small rural areas
- There were higher rates of GP referral to dermatologists for malignant neoplasm in rural areas than in urban areas

As noted in the application, skin infections in many indigenous communities reflect serious health inequalities. Scabies is endemic in some remote central and northern indigenous communities with prevalence up to 50% in children and up to 25% in adults. The East Arnhem Regional Healthy skin program reported that more than 70% of children presented in 2002-05 with scabies, almost all before they reached 2 years of age. Scratching in response to inflammation and itching of scabies can result in pyoderma, a bacterial infection that can lead to kidney disease and possibly heart disease. The pyoderma in indigenous communities commonly involves group A streptococcus (GAS), which is responsible for continuing outbreaks of post-streptococcal glomerulonephritis and acute rheumatic fever. Indigenous people, particularly those living in the high-rainfall, humid areas of northern Australia, are also vulnerable to a variety of fungal and related organisms.

Indigenous people are likely to underutilise specialist dermatology services (approximately one episode of care for every 906 indigenous Western Australians compared to one episode of care for every 247 people in the general Western Australian population) which may be partially explained by a lower prevalence of skin cancers and other actinic-related diseases among Indigenous Australians^{ix,x}. Skin problems are reported to be the primary reason for 16% of GP consultations by indigenous people. An audit of Perth outpatient clinics in 2010, identified skin infections to be the most common skin condition in indigenous groups, followed by fungal infection, with a high number of bacterial, viral and ectoparasite infections^x.

The application includes patients with skin lesions and those with inflammatory skin conditions. Patients with inflammatory skin conditions are likely to be referred to specialist dermatologists where there is a need for an ongoing or longer term treatment programs. As noted by the applicant, based on overseas experience, the use of this technology is more likely to be used for acute skin lesions and difficult to interpret inflammatory skin conditions.

In excess of 200 mobile phone applications (apps) related to dermatology are available and most are free. The apps cover a broad range including diagnoses and tracking of disease and vary widely in their capabilities. There are no regulations applying to the development of these apps and no quality assessment has been done by the US Food and Drug Administration to date^{xi}. The apps are designed to be used by patients without the need for a referral to a doctor or under any medical supervision. These applications do not form part of this submission.

Delivery of the intervention

There are two participants to the proposed service, the referrer and the specialist dermatologist.

Specialist dermatologists

The proposed specialist dermatology service involves the following steps:

- The specialist dermatologist develops a standardised digital template and store and forward guidelines (this will include security or encryption standards).
- The referrer accesses the dermatology template and provides to the dermatologist a completed information template and digital image. Uploads this information to a telehealth portal as indicated in the guidelines.
- The specialist dermatologist accesses the clinical information and or a clinical pro-forma provided by the referrer. It is very important that this clinical information is provided according to the dermatologist's guidelines.
- After carefully reading all the clinical notes the dermatologist accesses the provided digital images and advises the referrer if they require additional information, and if the consult is unsuitable or suitable. If the proposed consult is suitable for asynchronous consult, the process basically follows the rule of classical consultation and the dermatologist provides diagnosis and management advice.

Referrer

The requirements on the referrer are that they:

- Identify a suitable candidate and obtain their consent
- Contact the dermatologist and request asynchronous consult
- Document patient history, presenting complaint using dermatologists pre-prepared on-line template and capture images of relevant condition using camera and devices in accordance with store and forward guidelines developed by the dermatologist.
- Provide additional information or images if requested by the dermatologist
- If the consult is accepted, receive advice from dermatologist and treat patient accordingly.

The following is outlined in the application as the information required by the dermatologist from the referrer:

- General:
 - date & time of consult;
 - Patient details: name, Medicare number, id, phone, address, DOB, sex;
 - Referrer details: Name, site/organisation, email, health provider identifier;
 - Consultant details: Name, site/organisation, email, health provider id;
 - Urgency of response: (e.g. Within 24 hours, 2-3 days, 1 week);
- Clinical Data:
 - reason for consultation,
 - patient's chief complaint,
 - duration of condition,

- associated signs and symptoms,
- exacerbating factors,
- pregnancy
- medications, allergies,
- investigations biopsy results/laboratory data,
- diagnosis (provisional);
- Post consultation:
 - recommendations, clinical responsibilities, management plan.

There are a number of different store and forward teledermatology applications that are used around the world, including TeleDerm, that differ in their technical specifications and requirements on referrers and providers.

In 2010 an evaluation of four major commercially available store-and-forward technology, suitable for teledermatology, was published by Armstrong et al.^{xii}. Table 3 below is a summary of the technical specifications and features of the four products.

Table 3: Summary of feature comparison among the four major store-and-forward teledermatology applications

Evaluation Criteria	Description	AFHCAN	MEDWEB	TELEDERM SOLUTIONS	SECOND OPINION
System requirements	Resources required to operate the program. Ability to run on a local computer versus Web accessibility	The referral side runs an application local to the PC. Consulting physicians use Internet Explorer or Firefox to access the cases.	PC with Microsoft Windows 2000 (or higher) and an Internet connection running Internet Explorer 5.5	Pentium class PC with 500 MB RAM running Internet Explorer 5 or later	PC with Microsoft Windows XP and Microsoft Office. Client software is currently only compatible with Microsoft Windows XP. Accessible via the Web using terminal services technologies such as Citrix. Second Opinion also has a WebAccess product not evaluated here.
HIPAA compliance, security, and privacy	HIPAA compliance with secure storage, transmission, and access.	Data are encrypted. Patient information access record is tracked	Data are encrypted. Patient information access record is tracked.	Data transfer encrypted via HTTPS. Hosted Service is from a Tier-1 data centre approved by the VA.	Local client. Data are encrypted and sent over e-mail.
Information sharing and storage	Ability to store and transmit digital images, clinical history, and consultant recommendations in an organized and searchable fashion.	Images can be uploaded from file or captured from medical peripherals. Patient data are stored in a central location where it is easily accessible.	Images can be uploaded from file or captured from medical peripherals. Patient data are stored in a central location where it is easily accessible	Images can be uploaded from file or captured from medical peripherals. Patient data are stored in a central location where it is easily accessible	Database is installed locally by default but can be configured for access from a centralized location. Images are uploaded from file.
User interface	User-friendliness and intuitiveness of the application. Upload speed for digital images.	Features intuitive interface with large clickable buttons (suitable for touch screen). Web interface features e-mail-like layout similar to Microsoft Outlook. Patient case data can be entered on user-customizable forms.	Patient data are entered in a tabbed form. Provides a library of customizable forms.	Intuitive workflow. A database of dermatology specific templates enhances efficiency.	The user interface utilizes standard Microsoft icons. Patient information is organized in an intuitive fashion.
Compatibility	Integration with existing EMR systems and applications. Ability to interface with standard imaging communication formats such as DICOM and PACS.	Limited support for PACS and DICOM (requires customization). Does not currently support HL7.	Supports PACS, DICOM, and HL7. HL7 export utility is a custom integration project.	HL7 compatibility would require customization. No DICOM or PACS compatibility.	Does not support "out of box" HL7 or PACS compatibility.

Evaluation Criteria	Description	AFHCAN	MEDWEB	TELEDERM SOLUTIONS	SECOND OPINION
Scalability	Ability to fit into organizations of various sizes and functionalities.	Scalable	Scalable	Scalable	Additional configuration and resources may be required for large deployments.
Billing	Ability to upload, capture, And/or process billing information directly to a third-party payer.	Creates a billing report form that can be sent to any system.	Has embedded ICD-9 and CPT code libraries. The uploading process to another system has to be defined.	Billing integration requires customization.	Billing integration requires customization.
Cost (as of July 2009)	License, server, and user costs	Distributed worldwide by AMD Global Telemedicine, Inc. tConsult Server: Perpetual Use License ranges from *\$2,500 to *\$20,000 depending on size of deployment. tConsult PC Client: Each referral site pays *\$3,700 for a Perpetual Use License. tConsult Web Client: This Internet Explorer-based application is free of charge for consulting physicians.	*\$17,500 for the server software and hardware including one practice application (dermatology). Additional installation, training, and service fees apply.	*\$3,500 "start-up fee" per location, which pays for their staff to provide on-site training. Thereafter, consulting dermatologists pay a \$4 transaction fee per consult. Referral sites pay an annual maintenance fee of *\$500.	Referral sites pay an average of *\$2,500 for the basic version=network node and *\$5,000 per site for a full version of Second Opinion Professional. Expert Edition is free for consultants.

AFHCAN, Alaska Federal Health Care Access Network; HTTPS, hypertext transfer protocol secure; PC, personal computer; RAM, random access memory; HL7, Health Level Seven; VA, veterans administration; ASP, application service provider; CPT, current procedural terminology; ICD-9, International Classification of Diseases, Ninth Revision^{xii}

The comparative analysis was undertaken on Alaska Federal Health Care Access Network, Medweb, TeleDerm Solutions, and Second Opinion. All four teledermatology applications were reported as being mature applications, capable of addressing the basic needs of store-and-forward teledermatology referrals and consultations. It was noted that each application adopted different approaches to organize medical information and facilitate consultations. Each of the applications was evaluated according to its technical requirements, security, compatibility, creating a case (referring provider), responding to a case (consulting physician), searching cases, new user evaluation, and perspective from a high volume using teledermatologist.

The study reported that the areas in need of improvement common to these major applications include (1) increased compatibility and integration with established electronic medical record systems, (2) development of fully integrated billing capability, (3) simplifying user interface and allowing user-designed templates to communicate recommendations and patient education, and (4) reducing the cost of the applications^{xii}.

From Table 3 above, and discussion of the store and forward technology in the paper, this approach to a dermatology consultation may impose considerable onus on the referrer as well as the specialist dermatologist. The evaluation report was published in 2010 and so the technical requirements listed in Table 3 may have changed, but a minimum technical specification may be required by the referrer, as well as training and a possible cost impost that differs for each software application. If private specialist dermatologists buy different software applications, the referrer may need to have technical specifications capable of supporting all the different applications, have training in each of the different applications to be able to refer and create a case and possibly face an annual maintenance fee.

As noted in the application, Australia's population is dispersed with approximately one-third of the population living outside major cities. These people often live in communities too small to support metropolitan models of specialist health delivery locally. They depend on the extended scope of practice of their local rural general practitioners or visiting specialists and have to travel to larger urban areas for specialist healthcare or do not access specialist care at all. Typically rural general doctors (GPs, Medical Officers in Primary Care Clinics and Aboriginal Medical centres) work in relative isolation (geographically) to other medical specialists. Because of this isolation, practitioners build strong referral and professional linkages to specialist colleagues to ensure support and advice when required. It is suggested in the application that these networks can be enhanced to form the basis of a teledermatology arrangement as long as the pressures of time are mitigated, because despite the population density in suburban and metropolitan centres, the patient/doctor ratio is much higher in rural and remote regions than in metropolitan general practice. The proposed service is argued to have the advantage of being easily scheduled into a busy practice in comparison to synchronous telemedicine (videoconferencing) which requires synchronisation with multiple parties.

The applicant indicated that it is envisaged that a number of different dermatology groups will develop different software to undertake asynchronous consultations, in the same way that there are different radiology systems. The technology will be available in both the public and private sectors, with the former integrated into the overall public hospital information systems. The Australian College of Dermatologists does not see itself having a role specifying particular software. The individual specialist or group will require that referrers meet basic information system and encryption criteria.

As the proposed service is currently outlined, different specialists would develop different templates that referrers would need to fill out. Referrals need to have patient consent, meet Medicare record keeping and audit requirements and maintain security of patient data. **PASC agreed that a standardised referral template and with a minimum data set was needed.** This needs to be developed and the Australian College of Dermatologists is best placed to do this.

It is proposed that the delivery of asynchronous specialist dermatology consultations delivered by telecommunications, will able to be provided in an:

- Inpatient private hospital
- Inpatient public hospital
- Outpatient clinic
- Emergency department
- Consulting rooms

- Day surgery centre
- Residential aged care facility.

According to the application this is because consultations are able to take place anywhere a consultant has access to a computer and the internet, e.g. consultation room, hospital. The list above doesn't indicate the service would be provided in multiple locations as the service is provided online only. The settings nominated above in the application only addresses where a specialist may conduct the consultation not where they actually will. In a face-to-face consultation patients see a specialist in their consultation rooms. **PASC advice was that it was not necessary, for the purpose of the MBS item descriptor, where a specialist dermatologist will conduct an asynchronous consultation, although the specialist will be required to be present in Australia as Medicare benefit is only payable for services provided in Australia.**

The application does not provide an estimate of the number of times the proposed intervention would be delivered to a patient per year and over how many years it would be needed per patient. However, it is not anticipated that patients receiving asynchronous specialist dermatologist consultations delivered by telecommunications will require any different number of consultations than if they were being seen face-to-face (although this assumption will need to be tested by the evidence about the effectiveness of this approach compared to a face-to-face consult). It is anticipated that more patients will receive a specialist consultation than in the past as this technology will enable people in remote areas to access a specialist dermatologist.

There could be limitations on delivery of asynchronous specialist dermatology consultations delivered by telecommunications in remote areas of Australia due to a lack of technical support. It will need to be determined if the telecommunications infrastructure sufficient to support the internet speed required for this technology is available in rural and remote areas of Australia. In addition, as noted above this capability will need to be of a level to support the different available software, and encryption standards.

MSAC does not usually describe the technology required to deliver a certain health intervention because this has the potential of locking in obsolete technology over time. The Australian College of Dermatologists also does not see a role for itself in describing the appropriate software.

Prerequisites

The service (consultation) will continue to be provided by specialist dermatologists but delivered by the telecommunications network rather than face-to-face. As such, the specialist dermatologist may require training in the use of the technology to access the clinical information provided by the referrer, and to provide their diagnosis and management if the patient is considered suitable for an asynchronous consultation. The College of Dermatologists has indicated that they are developing a program to train hospital registrars in the software. Presently there is no formal training for existing dermatologists. A number of dermatologists are already participating in the government Medicare Telehealth program. Expert advice is that the same skill sets are required. The dermatologist will decide if the information provided is sufficient to complete an asynchronous consultation or they require video conferencing or referral for a face-to-face contact. This will depend on the level of

expertise of the consultant but also on the inherent level of complexity of the underlying skin condition.

MBS explanatory notes, G6.1, "Referral of Patients to Specialists or Consultant Physicians defines a "referral" as a request to a specialist or a consultant physician for investigation, opinion, treatment and/or management of a condition or problem of a patient or for the performance of a specific examination(s) or test(s). Aside from GPs, and other medical practitioners, these notes make it clear that **a participating nurse practitioner is able to refer to specialists** and consultant physicians.

A practice nurse or an ATSI health practitioner is salaried or contracted to a GP. A GP can claim under Item 10987 (this can include district medical officers who work for State and Territory Health Departments but are eligible to claim under this item) where a follow up service is provided by a practice nurse or Aboriginal and Torres Strait Islander health practitioner on behalf of that medical practitioner for an Indigenous person who has received a health check. In all cases, the GP under whose supervision the health check follow-up is being provided retains responsibility for the health, safety and clinical outcomes of the patient. The referring practitioner in this case will be the GP.

For a valid "referral" to take place, the following conditions must be met:

(i) the referring practitioner must have undertaken a professional attendance with the patient and turned his or her mind to the patient's need for referral and have communicated relevant information about the patient to the specialist or consultant physician (this need not mean an attendance on the occasion of the referral);

(ii) the instrument of referral **must be in writing as a letter or note to a specialist** or to a consultant physician and must be signed and dated by the referring practitioner; and

(iii) the specialist or consultant physician to whom the patient is referred must have received the instrument of referral on or prior to the occasion of the professional service to which the referral relates

DoH has indicated that they can see no reason why the use of a web template would not be considered a valid referral under Medicare but that it would be the responsibility of the referring and treating practitioner to confirm the appropriateness of the final template with DoH.

According to the MBS explanatory notes, the prima facie evidence that a valid referral exists is the provision of the referral particulars on the specialist's or the consultant physician's account. A specialist or a consultant physician is required to retain the instrument of referral for 18 months from the date the service was rendered. A specialist or a consultant physician is required, if requested by the Medicare Australia CEO, to produce to a medical practitioner who is an employee of Medicare Australia, the instrument of referral within seven days after the request is received.

The technology used by GPs in their practice is Medical Director, however many dermatologists use Genie Solutions or other systems. The store and forward technology, is not integrated into either of these existing practice IT services. The referral and response information is cut and pasted into the medical record system utilised which is currently the case with Medicare funded telehealth consults.

All referrers to this service, especially where they are a nurse practitioner or indigenous health care practitioners (who work under contract to a GP who would be responsible for the valid "referral") require familiarity with the software (GPs may already have acquired the necessary training if they have participate in the ACRRM TeleDerm program), may require training to be able to use the software and refer a patient to the specialist. The application is quite specific about the information that would be required by a referrer to upload, including digital images and clinical history, prior to the specialist accepting or declining the consultation. The specialist dermatologist who will use this software for providing consulting services has an expectation that the referrer will fill out a standardised template and provide a standard of photo according to their guidelines. The applicant does not have any expectation that a referrer will need to be trained to meet these guidelines. The provision of this service is unlikely to necessitate an increase in the health care workforce.

MBS will reimburse face to face consultations, including videoconferencing (if certain criteria listed are met) but asynchronous specialist dermatology consultations delivered by telecommunication, in which images are interpreted and a report written to another doctor, does not appear to meet the definition of a proposed service as currently defined in the legislation. Legislative changes will likely be required to accommodate this type of service.

At least two health professionals are required to provide this service. It appears that part of the task of the referrer will be to take on aspects of the service that are currently provided as part of a face-to-face consultation (including videoconference). That is, the referrer would now be responsible for providing to the specialist dermatologist information on how the patient presents, clinical symptoms, clinical history and pictures of the skin conditions, that previously consultants would have needed to ascertain for themselves. The referrer if a GP, would obtain this information as part of a normal consultation, including maybe a provisional diagnosis, but in the course of a face-to-face consultation, the consultant would have replicated this information. Medicare benefit is attracted for an attendance on a patient even where the attendance is solely for the purpose of issuing a referral letter or note. GPs may see the requirement to upload clinical information and digital images about the patient in a form that meets a specialist dermatologist's requirements as additional workload and seek reimbursement, or alternatively they may see it as analogous to writing a referral letter to a specialist. General practitioners working in rural and remote areas of Australia deal with a higher patient doctor ratio, increased complexity of cases and work longer hours than their urban counterparts^{xiii}. As noted in the application, rural and remote doctors have less spare capacity to provide additional services.

General practitioners and participating nurse practitioners are able to bill for a longer consultation for them to take on the additional workload required for them to refer to a specialist dermatologist under the proposed service.

PASC advice is that under the proposed service GPs' referrals are more intensive than standard paper based referrals. This may be a barrier to rural GPs in particular taking up the proposed service. The economic evaluation should include an analysis of possible increased use of GPs' Level C and Level D attendance items.

For participating nurse practitioners, a Medicare benefit is attracted for an attendance on a patient even where the attendance is solely for the purpose of issuing a referral letter or note.

The application does not directly address where a patient or referrer may be for the delivery of an asynchronous specialist dermatologist consultation delivered by telecommunications. It appears that usually patients will either be in a residential aged care facility, attending an Aboriginal Community Controlled Health Services (ACCHSs), or attending their local GP at which time they will be required to consent to this service and a referral will be written. The technology does not require that patient and referrer communicate in real time with the consultant.

Co-administered and associated interventions

The application does not identify any co-administered and associated interventions. No co-administered and associated interventions were identified.

Listing proposed and options for MSAC consideration

Proposed MBS listing

Table 4 below provides details of the proposed MBS listing.

Table 4: Proposed MBS item descriptor for [item]

	Category [category number] – [Category description]
MBS [item number] Dermatology-Asynchronous Initial Consultation Fee: \$72.72 Referrer is required to complete dermatologist template and provide photos, both to a standard whereby the dermatologist can decide if asynchronous consultation is suitable	
MBS [item number] Dermatology-Asynchronous Follow-up Consultation Fee: \$36.36 Referrer is required to complete dermatologist template and provide photos, both to a standard whereby the dermatologist can decide if asynchronous consultation is suitable	

The patient population which would benefit from the proposed intervention are patients suffering from inflammatory skin conditions or skin lesions that require referral to a specialist dermatologist but do not have ease of access to specialist dermatologists due to geographical isolation or living conditions. This would include patients living in rural and remote communities, residents of aged care facilities, patients of Aboriginal Community Controlled Health Services and those people residing in the 2011 MBS Geographic regions for video conferencing Telehealth (these areas are available from MBS online for the relevant Telehealth MBS items).

The proposed item descriptor does not specify a category for the MBS item listing.

Australia has the highest incidence of skin cancer in the world and in 2010, almost 780,000 skin cancers were diagnosed and treated in Australia. Of them, only 1% were invasive melanoma. The vast majority of skin cancers are nonmelanoma skin cancers (NMSCs) in people aged 60 years and over. Nonmelanoma skin cancers in Australia are now nearly seven times more common than all other cancers combined; and approximately half of these are removed by general practitioners. Two-thirds of all skin cancers are basal cell carcinomas (BCCs), 30% are squamous cell carcinomas (SCCs), 1.5% in situ melanomas and about 1% are invasive melanomas with the remaining 1% made up of about a dozen very rare conditions^{xiv,xv,xvi}.

The application identified inflammatory skin conditions as including eczema, psoriasis, acne, bacterial impetigo, Kaposi sarcoma, varicelliform eruption and amoxicillin-induced drug. A March 2003 to April 2004 analysis of Australia GP practice management (BEACH) of inflammatory skin conditions (ISC), including eczema (dermatitis) – atopic, discoid, asteatotic, stasis - seborrhoeic dermatitis, psoriasis, acne rosacea, urticaria, and photosensitivity recorded them 3097 times during 2003–2004 at a rate of 3.1 per 100 encounters. This represents an average of approximately 3 million ISC encounters in general practice across Australia in any 1 year. If patients were referred it was mostly to a dermatologist with 5.8 per 100 ISC encounters recorded^{xvii}.

It is proposed that the service is made available on the basis of geographic location, attendance at an indigenous medical clinic, or for people with disability. Indigenous people, it is proposed, may benefit in particular from this intervention as they may live in areas remote from medical services. Under the MBS TeleHealth Item 99, specific eligibility criteria are listed specifying where a patient is required to be to be eligible for the videoconference service. The following criteria are listed:

- the patient is not an admitted patient; and
- the patient:
 - is located both:
 - within a telehealth eligible area; and
 - at the time of the attendance-at least 15 kms by road from the specialist;or
- is a care recipient in a residential care service; or
- is a patient of:
 - an Aboriginal Medical Service; or
 - an Aboriginal Community Controlled Health Service; (for which a direction made under subsection 19 (2) of the Act applies).

The application has requested that the original 2011 MBS Geographic Regions for Videoconference be included as a subgroup of the population, to also include patients who have difficulty accessing services from outer metropolitan regions (a lack of specialist dermatologists in this area and difficulty for people with disabilities travelling are the reasons provided for inclusion). This is a broader group of eligible people than is currently allowed under the telehealth eligibility criteria.

PASC advice is that the telehealth eligibility criteria for MBS item 99, listed above, should be the defined eligible population for the proposed service without any additional limiting criteria. However, sensitivity analysis in the modelled evaluation should include people residing in outer-metropolitan

areas and for people with physical disabilities. **Consultation is requested on how people with disabilities may be defined for the purpose of eligibility for this service.**

Although there is a likely difference in prevalence and incidence of skin cancer between indigenous and non-indigenous populations, PASC advice is that separate analysis for each of these populations is not required.

Clinical place for proposed intervention

The proposed intervention is an asynchronous specialist dermatology consultation delivered by telecommunications. With this technology a patient and their consultant do not need to have a face-to-face consultation and the treatment of the patient is referred back to the referrer under the consultant's direction. The patient population is people with inflammatory skin conditions requiring a referral to a specialist dermatologist.

In the absence of the intervention, a patient will be referred to a specialist dermatologist, using a written referral, by their GP or referrer (which may be another specialist or participating nurse practitioner). The dermatologist has a face-to-face consult with the patient and provides them with a diagnosis, treatment and advice. The dermatologist sends a report to the referrer. Depending on the skin condition a follow-up appointment may be required. Patient's in rural and remote areas are more likely to have their skin conditions managed by their GP because of their geographical isolation and the lack of specialist dermatologists outside major cities. Alternatively, for patients in rural and remote areas this face-to-face consultation may take the form of a videoconference, in which all parties are present at the same time, referrer, patient and consultant, to discuss the patient's skin condition.

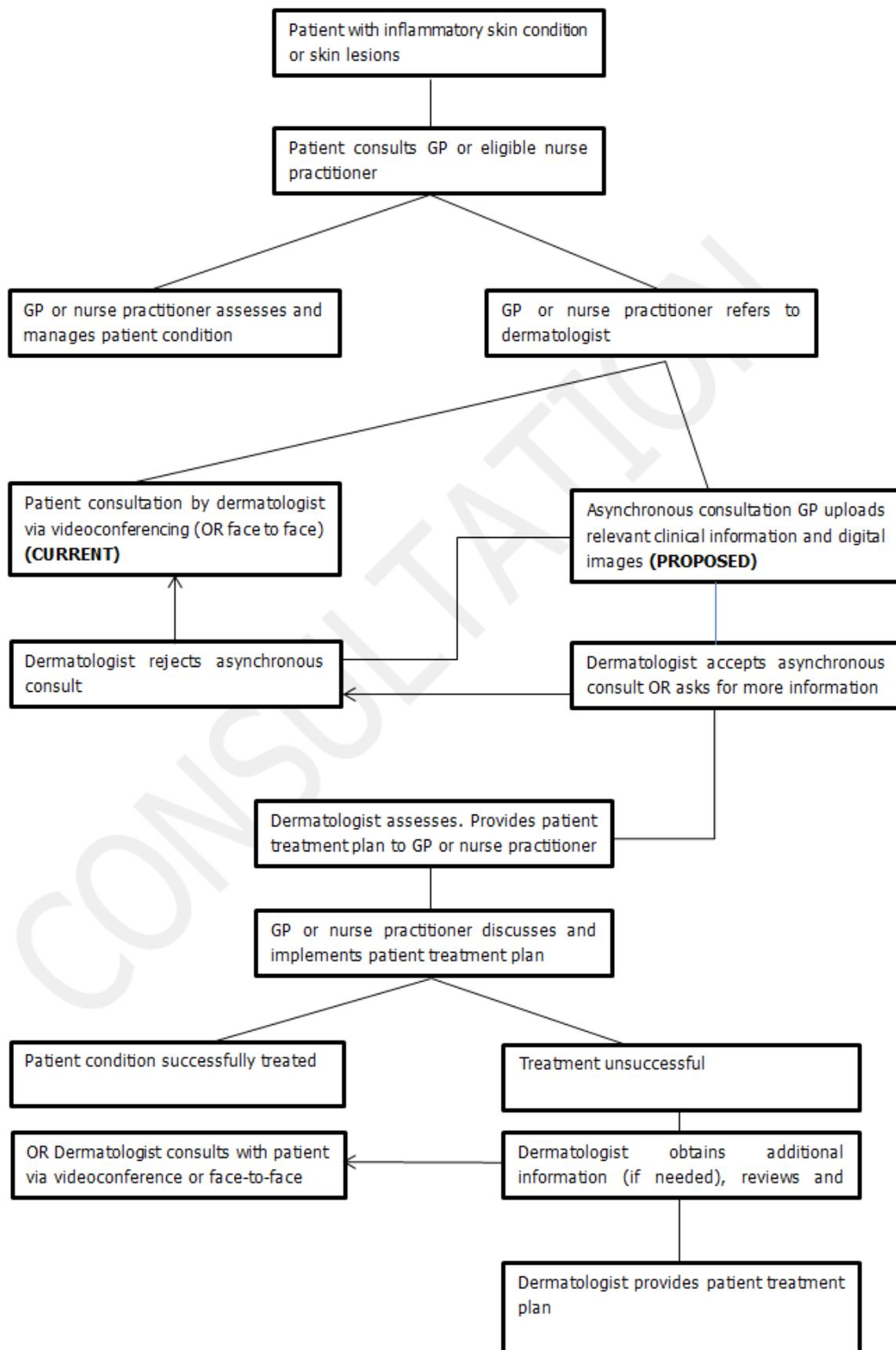
Under the proposed service, a patient will be referred to a dermatologist, by their GP or a referrer (which may be another specialist or nurse practitioner) after receiving patient consent. The referral will be in the form of digital images, and a completed template according to guidelines prepared by the dermatologist. The GP or referrer accesses the dermatologist's template and provides the required clinical information and digital images and then uploads to a secure portal or web. The dermatologist accesses the online information. If the specialist dermatologist determines the information and digital images are of sufficient quality they will provide an online report to the referrer with a diagnosis and treatment plan. If the information or images are inadequate the dermatologist requests additional information, after which they will provide the referrer with a diagnosis and treatment plan. If the dermatologist decides the patient is unsuitable for an asynchronous consultation they will advise the GP accordingly. Where the specialist dermatologist has provided a diagnosis and treatment plan back to the referrer the referrer then provides feedback to the patient and implements the dermatologist's advice. Similar to the current situation, depending on the skin condition a follow-up appointment may be required but instead of a face-to-face consult it may also be done as an asynchronous consultation via telecommunications. Patient's in rural and remote areas, including indigenous people, it is proposed, with the use of this service, are more likely to have their skin conditions reviewed by a specialist dermatologist who will be able to make a diagnosis and recommend treatment. This treatment usually can be provided by the referrer. Patient's in aged care homes who are unable to travel, or have difficulty travelling will be able to have their skin conditions reviewed by a specialist dermatologist.

The population for who it is proposed this service will benefit are people with skin lesions or inflammatory skin conditions who live outside major cities in Australia, particularly in rural and remote areas, elderly people living in aged care facilities, ATSI people who attend ACCSHSs and people with disabilities who may have difficulty accessing transport, and require a referral to a specialist dermatologist. These groups are less likely to access specialist services if they have to travel long distances and accessing services may be costly. Many of these people would fall into the geographic boundaries set by Medicare for Telehealth video conferencing in 2011. Indigenous people are particularly likely to benefit from this intervention as they are most likely to live outside urban parts of Australia.

Figure 1 shows the clinical management algorithm with and without the proposed service



Figure 1: Clinical management algorithm with and without asynchronous dermatology services



The proposed service, an asynchronous specialist dermatology consultation delivered by telecommunications is expected to substitute for the standard MBS telehealth items for professional attendance including the patient-end telehealth items. The application provides data showing that patients who have accessed the Telehealth Items for specialist dermatology consultations have been from rural and remote areas or aged care facilities. The application considers that if the intervention gets listed on the MBS then it is likely to substitute for the current store and forward service provided by the ACRRM under funding from a Federal Government program. It is also expected that the proposed service may substitute for a proportion of the specialist dermatology face-to-face consults, Items 104 and 105, if successfully introduced. It is likely that the proposed service will result in an increase in specialist dermatology consultations through an increase in the productivity of the dermatologist. There may also be an increase in referrals from GPs in rural and remote areas who may have previously managed a condition but under the proposed service have an option to refer patients for specialist advice. Use of the proposed service is unlikely to result in a decrease in GP consultations items. GPs will still need to see the patient to make the referral and to gather the clinical information required by the dermatologist's guidelines and then after the consult to carry out the specialist dermatologist treatment management plan. If GPs had previously treated these patients an increase in GP workload is not expected but where patients were previously referred and treated by the specialist dermatologist, the proposed service may increase a demand for GP services.

Below is a list of the likely population who may use the proposed service (and a rough estimate if possible). There is an overlap between the populations listed in the dot points.

- Approximately 30% of Australians who live outside a major city and require a specialist dermatology consultation
- Patients currently seen using videoconferencing Telehealth items, rural and remote areas and residential nursing homes (July-Jan 2013; 1323) and require a specialist dermatology consult.
- The proportion of patients currently being treated by their GP for their skin condition and a Telehealth item (videoconferencing), is not available or has not been used to assist treatment
- Patients currently being treated through the ACRRM TeleDerm program (16,666 to 30 September 2012).
- Patients being treated as outpatients in Tertiary Public Hospitals.

Additional populations that will also be considered as using the proposed service are people who currently reside in outer metropolitan areas and people with a physical disability.

The application is not able to identify the likely usage of the intervention and it is difficult to estimate the likely usage of the proposed service, if it becomes listed. This is because use of the service may depend on other Federally funded programs being defunded and cost shifting of public patients from state to federal coverage.

Comparator

The proposed service, asynchronous specialist dermatology consultation delivered by telecommunications, is expected to substitute for the standard MBS telehealth items for professional attendance including patient-end telehealth items.

PASC has recommended that the modelled analysis should include a sensitivity analysis that includes patients who reside in outer metropolitan areas and patients with a physical disability. These are patients not currently covered under the eligibility criteria for telehealth MBS items. As such, the proposed service for these patients is expected to substitute for the face-to-face specialist dermatology consultations, MBS items 104 and 105.

Table 5 presents the proposed MBS item descriptor for the proposed service.

Table 5: Proposed MBS item descriptor for asynchronous dermatology consultation

Category 1 – Professional attendances
<p>MBS [item number]</p> <p>Professional attendance on a patient by a specialist practicing in his or her specialty if:</p> <ul style="list-style-type: none"> (a) the attendance is by asynchronous telecommunications; and (b) the attendance is for a service; (c) the patient is not an admitted patient; and (d) the patient: <ul style="list-style-type: none"> (i) is located both: <ul style="list-style-type: none"> (A) within a telehealth eligible area; and (B) at the time of the attendance—at least 15 kms by road from the specialist; or (ii) is a care recipient in a residential care service; or (iii) is a patient of: <ul style="list-style-type: none"> (A) an Aboriginal Medical Service; or (B) an Aboriginal Community Controlled Health Service; <p>for which a direction made under subsection 19 (2) of the Act applies</p> <p>Fee: \$72.72</p> <p>[Relevant explanatory notes]</p> <p>Referrer is required to complete an online template, using store and forward technology, specified by the dermatologist, to a standard whereby the dermatologist is able to decide if asynchronous consultation is suitable</p>

The proposed MBS item descriptor in Table 5, has placed the requested intervention in Category 1 as the service that is described in the application is a professional consultation. This is where the MBS telehealth items have been placed. The patient group is expected to be the same as those eligible for the telehealth items. These have been replicated in Table 5.

The MBS item descriptor will require further development as the proposed service would require careful legislative drafting in order to meet the legislative requirements of a professional service under the Health Insurance Act 1973 ('the Act'), and the Health Insurance (General Medical Services

Table) Regulations. The item descriptor would have to relate to the service of interpretation of images and writing of a report rather than a traditional consultation.

Table 5 shows the proposed fee in the application which is 85% of the MBS items 104 and 105. The rationale for the requested fee is that it is a balance between increased dermatology responsibility and skills, plus risk, reduced by the time taken and convenience of the proposed service. From the description of the service it is clear that the time a specialist dermatologist will be required to spend with a patient will be reduced due to the responsibility on the referrer to supply a more detailed referral form, clinical history and digital images and to explain to the patient the diagnosis and management, responsibilities previously of the consultant.

An asynchronous consultation delivered by telecommunications is likely to have reduced consultation time but may on the other hand make consultations slightly riskier, though this should be offset by a specialist being able to decline a consult. The application states that specialist dermatologists in the public system use the proposed service and are enthusiastic about its ability to improve access and reduce face-to-face consultation time. Although the application states it is highly likely to spread to the private sector, there are barriers to this spread that don't exist in the public sector. Primarily, this is the initial cost of the software and its on-going management. The private specialist dermatologist would either need to have or expect to have a substantial practice in rural and remote Australia (areas more likely to be serviced by State health departments) or the private specialist may share the application through an arrangement, for example with a network of other private dermatologists or maybe through a portal setup at the College to offset the initial software and maintenance cost.

Clinical claim

It is anticipated that the assessment report considering the comparative effectiveness and safety of the proposed asynchronous specialist dermatology consultation delivered by telecommunications will claim non inferiority compared to videoconference specialist dermatology consultation. The application believes this claim is supported by the fact that in each case the dermatologist will only decide to accept an asynchronous consult if he/she believes the case is suitable and the information provided is adequate. Given that the application makes no claims of clinical superiority the most appropriate economic evaluation would be a cost minimisation analysis.

The application makes no claims that diagnosis and management of a skin condition will be superior or inferior using asynchronous consultation. However, although making no formal claims of superiority of asynchronous dermatology consultation over face-to-face consultation the application does assume that asynchronous consultation will be superior on the basis of timeliness of diagnosis. Earlier diagnosis is assumed to improve outcomes, and is particularly desirable where a skin lesion may be malignant. On this basis, the economic evaluation should be a cost-effectiveness analysis (or even cost-utility, as early diagnosis of malignant lesions may improve survival), in which asynchronous consultation is considered to be superior to face-to-face consultation. PASC advice is that a cost effectiveness analysis will be required to include any superiority of outcomes, if evidence is found, and to model increased access for patients.

Outcomes and health care resources affected by introduction of proposed intervention

Clinical outcomes

The proposal expects there to be no change in the following general outcomes from the delivery of specialist dermatology consultations using asynchronous teledermatology for the treatment of skin lesions or inflammatory skin conditions compared to face-to-face consultation.

- Correct diagnosis of clinical condition
- Equivalent long term outcome to face to face consultations
- Resolution of disease

Safety

- Misdiagnosis and not appropriate management

The safety of this approach to specialist dermatology can be assessed by the number of missed diagnosis, in particular of melanoma, and therefore failure of appropriate management.

The specific outcomes that can be used to provide evidence of clinical accuracy and that patients are receiving a more timely service are:

- diagnostic concordance between the teledermatologists and reviewing dermatologists.
- management concordance between the teledermatologists and reviewing dermatologists
- Time to diagnosis
- Survival (this outcome is of most relevance to melanoma)

Other outcomes to determine the efficacy of the intervention and access

- Proportion of patients that are refused an asynchronous consult (limitation of the technology)
- specialist request for additional images
- Uptake of intervention in remote communities

The reference standard for testing will be senior specialist dermatologist.

Health care resources

The proposal has identified direct costs required to deliver the intervention as a health care resource:

- Computer and software (both referrer and specialist)
- IT system with secure on line portal (specialist only)
- High speed internet (both referrer and specialist)
- Maintenance of software and regular upgrades (both referrer and specialist)
- Digital camera of sufficient quality to take the images. The applicant has clarified that a mobile phone is able to take an image of sufficient quality.

The proposal has identified there is likely to be a change in the staff time required for specialist to have up front training on the software.

A reported benefit of the use of proposed service is an increase in the productivity of the specialist dermatologist because the asynchronous consults take less time than normal face-to-face consults. The proposal estimates that the intra-service consult time will be approximately 23-28 minutes. This reduction will need to be estimated and costed.

The likely extent of the substitution for MBS items 99, 113, 2100, 2122, 2125, 2126, 2137, 2138, 2143, 2147, 2179, 2195, 2199, and 2220 by the proposed service and their fee will be included in the model.

There is likely to be an increase in the time the referrer needs to spend with patients, which is not presented in the application:

1. to take a detailed clinical history and digital images and to insert this information onto online forms and to upload these forms to a secure portal
2. follow-up appointments with the patient to explain the specialist’s diagnosis and instigate the treatment plan will most likely result in an increase the number of MBS items for GP or nurse practitioner attendance (except if the patient was being seen regularly for other conditions).

These likely additional GP fees from managing patients under the proposed service will need to be estimated and costs calculated.

Although not counted as health care costs, the intervention may have a reduction in patient out of pocket expenses for travel.

Proposed structure of economic evaluation (decision-analytic)

Table 6 sets out a summary of the extended PICO for the comparison of asynchronous specialist dermatologist consultation delivered by telecommunications compared to face-to-face specialist dermatologist consultation for skin lesions and inflammatory skin conditions.

Table 6: Summary of extended PICO to define the question for public funding that assessment will investigate

Patients	Intervention	Comparator	Outcomes to be assessed	Healthcare resources to be considered
Patients with skin lesions and inflammatory skin conditions who require referral to a specialist dermatologist	Asynchronous specialist dermatology services delivered by telecommunications	specialist dermatology services by videoconference	-Diagnostic concordance -Management concordance -time to diagnosis -proportion of patients refused an asynchronous consult	- MBS telehealth items -Direct costs of intervention (IT service & support) -increase in referrer time -Reduction in specialist time -staff training costs

The research question is:

What is the safety, effectiveness and cost-effectiveness of specialist dermatology services delivered asynchronously compared with current practice involving specialist dermatologist attendance provided by video conference (MBS telehealth items) in patients with inflammatory skin conditions and skin lesions?

From the description of the clinical management algorithm and information in the test a proposed decision analytic is provided at Figure 2.

Figure 2 is a decision analytic of the provision of asynchronous specialist dermatology services delivered by telecommunications to patients with inflammatory skin conditions (this includes skin lesions)

The decision analytic in Figure 2, shows that asynchronous specialist dermatology consultations will primarily substitute for videoconference consultations, and to a lesser extent face-to-face consultations for patients with inflammatory skin conditions. The proportion of patients that transit to improved from stay the same/condition worse will be informed by which inflammatory skin condition is being considered. Prevalence and incidence data, in this population, is likely too low for each particular inflammatory skin condition to be analysed separately, so inflammatory skin condition as a group will be evaluated. This consideration will also apply to the costs used. Clearly some skin conditions will require more intensive intervention and treatment than others. An ability to save costs by early diagnosis and aggressive treatment using asynchronous dermatology consultations should be picked up in the model, if the evidence supports this, through a change in the proportion of patients who will transit to the different arms; improve, stay the same/get worse. There is a possibility that the costs of delivery of asynchronous dermatology consultations will be greater than that for face-to-face consultations due to the need for increased participation of other health practitioners. This cost may be offset by the early treatment of the conditions and improved outcomes which is made explicit in the model. Specialist dermatology services will be used to diagnose a skin lesion as malignant or benign and treat as appropriate. Patients whose skin lesion is malignant will either be treated and survive or treated and die. Most patients with malignant skin lesions are expected to survive but a small number with malignant melanoma will die from the disease. Early diagnosis and prompt treatment is critical to long term survival. Improving survival of patients in rural and remote communities is explicitly considered in the model. This is because the application assumes that delivery of specialist dermatology services will allow for the diagnosis of malignant skin lesions, earlier. Early and aggressive treatment should provide for improved survival. The model assumes that patients in the intervention arm of the model will have the same outcomes but the proportions in each arm, treatment & survive or treatment & die, will change as a result of the intervention. Information that will be required to populate the model is prevalence and incidence data for the different skin lesions, age, indigenous or non-indigenous, demographic data (e.g. farmers are particularly prone to skin cancer).

Figure 2: decision analytic diagram – inflammatory skin conditions

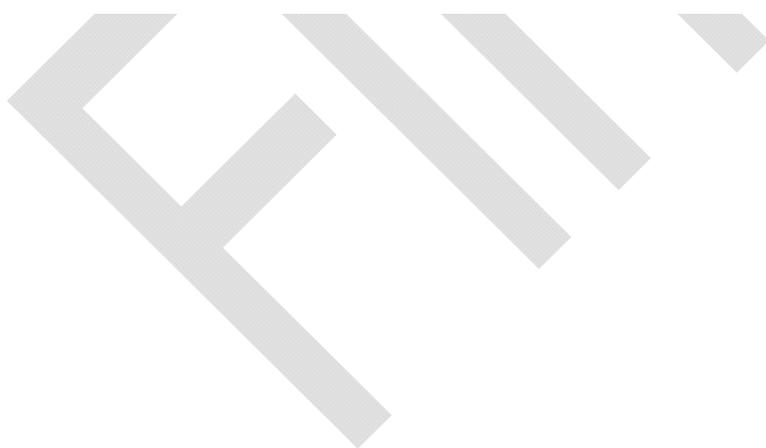
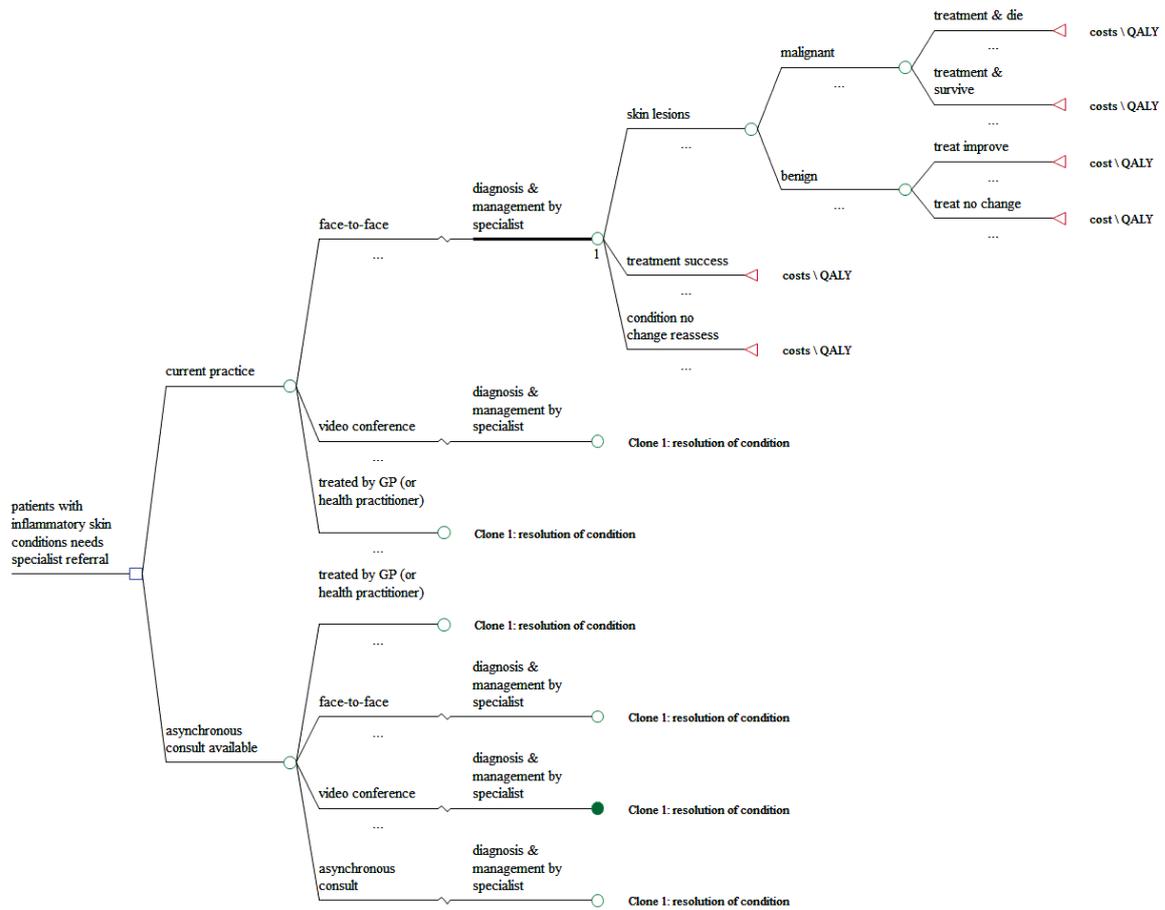


Table 8 is a list of the resources to be considered in the economic analysis. The full list of MBS telehealth items likely to be substituted has not been included in the table as there are 14. Instead a couple of the items are included.

Table 8: List of resources to be considered in the economic analysis

	Provider of resource	Setting in which resource is provided	Proportion of patients receiving resource	Number of units of resource per relevant time horizon per patient receiving resource	Disaggregated unit cost					
					MBS	Safety nets*	Other govt budget	Private health insurer	Patient	Total cost
<i>Resources provided to identify eligible population (asynchronous consult)</i>										
- referrer	GP	Clinic			2504 (Level) C	Extended 210.90			0	70.30
- referrer	GP	Aged care		Divided by pts seen (max 6)	35 (incl item 23)	Extended Lesser of 300% of derived fee or \$500			0	(36.60 +45.80)?
- Referrer	nurse	Home or aged care			82224	161.10			8.05	53.70
- Referrer (health check)	GP	Rooms, elsewhere not institution		Once every 9 mths	A34 or 715	Extended \$500			0	\$208.10
- referrer	nurse	Home or camp		At least 20 mins	82210	Extended 119.25			5.95	39.75
<i>Resources provided to deliver proposed intervention (asynchronous consult)</i>										
- diagnosis	specialist	rooms			104 (85%)				10.92	72.75
- follow-up	specialist	rooms			105 (85%)				6.45	36.55
- treatment	GP	Clinic		Depend on management plan	23	Extended 108.90			0	36.30
- treatment	nurse	Home or aged care facilities		Depend on management plan	82200	Extended \$28.80			1.40	9.60
- treatment	GP or GP aboriginal MS	Video (pt of ACCHS)		"	2126 LevelB	146.85			0	48.95
- treatment	GP	aged care institution		"	2125 (incl 2100)	extended Lesser of 300% of derived fee or \$500			0	(22.45+45.80)?
<i>Resources provided in association with proposed intervention</i>										
- software	?									
- maintenance of software										
- portal										
- staff training	specialist									
- staff training	referrer									
<i>Resources provided to identify eligible population (comparator)</i>										
- referrer	GP	Clinic			23	Extended 108.90			0	36.30
- referrer	GP	Aged care		Divided by pts seen (max 6)	20 (incl item 3)	Extended Lesser of 300% of			0	(16.60 +45.80)?

	Provider of resource	Setting in which resource is provided	Proportion of patients receiving resource	Number of units of resource per relevant time horizon per patient receiving resource	Disaggregated unit cost					
					MBS	Safety nets*	Other govt budget	Private health insurer	Patient	Total cost
						derived fee or \$500				
- Referrer	nurse	Home or aged care			82205	62.85			3.10	20.95
- Referrer (health check)	GP	Rooms, elsewhere not institution		Once every 9 mths	A34 or 715	Extended \$500			0	\$208.10
<i>Resources provided to deliver comparator 1 (face-to-face or via videoconference)</i>										
- initial	dermatologist	rooms			104	256.65			10.92	85.55
- follow-up	dermatologist	rooms		?	105	129.00			6.45	43.00
- Telehealth	specialist	video								
- Telehealth	nurse	Video (for aged care person)			82224	161.10			8.05	53.70
- Telehealth	GP or GP aboriginal MS	Video (pt of ACCHS)			2126 Level B	146.85			0	48.95
- Telehealth	GP	Video (aged care)			2125 (incl 2100)	Less or 300% of derived fee or \$500			0	(22.45+45.80)/?
-										
<i>Resources provided to treat skin conditions,</i>										
- Drugs or ointments to treat different inflammatory skin conditions	Doctor or specialist	Outpatient or clinic								
- treatment of skin cancer										
- surgery										
- staging of Ca										
- chemotherapy										
- (average cost of successful treatment)										
- (average cost of unsuccessful treatment)										

* Include costs relating to both the standard and extended safety net.

In estimating the health resources used to identify the population MBS items at the higher cost end have been included to try to cost the extra time required to take a fuller clinical history and to upload the information to a portal. As the comparator and the intervention place different time impositions on the referrer, health resources to identify the population are separated between the current situation (comparator 1) and the intervention to reflect this.

Appendix 1: Current MBS item descriptor for Telehealth items can be used to deliver specialist dermatology consultations

<p>MBS 99</p> <p>Professional attendance on a patient by a specialist practising in his or her specialty if:</p> <ul style="list-style-type: none">(a) the attendance is by video conference; and(b) the attendance is for a service:<ul style="list-style-type: none">(i) provided with item 104 lasting more than 10 minutes; or(ii) provided with item 105; and(c) the patient is not an admitted patient; and(d) the patient:<ul style="list-style-type: none">(i) is located both:<ul style="list-style-type: none">(A) within a telehealth eligible area; and(B) at the time of the attendance—at least 15 kms by road from the specialist; or(ii) is a care recipient in a residential care service; or(iii) is a patient of:<ul style="list-style-type: none">(A) an Aboriginal Medical Service; or(B) an Aboriginal Community Controlled Health Service; <p>for which a direction made under subsection 19 (2) of the Act applies</p> <p>Extended Medicare Safety Net Cap: 300% of the Derived fee for this item, or \$500, whichever is the lesser amount</p> <p>Telehealth Item</p> <p>50% of the fee for item 104 or 105. Benefit: 85% of the derived fee</p> <p>Ready Reckoner</p> <p>(See para A58 of explanatory notes to this Category)</p>	<p>Category 1 – Professional attendances</p>
<p>MBS 113</p> <p>Initial professional attendance of 10 minutes or less in duration on a patient by a specialist practising in his or her specialty if:</p> <ul style="list-style-type: none">(a) the attendance is by video conference; and(b) the patient is not an admitted patient; and(c) the patient:<ul style="list-style-type: none">(i) is located both:<ul style="list-style-type: none">(A) within a telehealth eligible area; and(B) at the time of the attendance—at least 15 kms by road from the specialist; or(ii) is a care recipient in a residential care service; or(iii) is a patient of:<ul style="list-style-type: none">(A) an Aboriginal Medical Service; or(B) an Aboriginal Community Controlled Health Service; for which a direction made under subsection 19 (2) of the Act applies; and(d) no other initial consultation has taken place for a single course of treatment. <p>Fee: \$64.20 Benefit: 85% = \$54.60</p>	<p>Category 1 – Professional attendances</p>

(See para A58 of explanatory notes to this Category)

Extended Medicare Safety Net Cap: \$192.60

Category 1 – Professional attendances

Notes 58

Telehealth Specialist Services

These notes provide information on the telehealth MBS video consultation items by specialists, consultant physicians and psychiatrists. A video consultation involves a single specialist, consultant physician or psychiatrist attending a patient, with the possible support of another medical practitioner, a participating nurse practitioner, a participating midwife, practice nurse or Aboriginal health worker at the patient end of the video conference. The decision as to whether the patient requires clinical support at the patient end of the specialist service is based on whether the support is necessary for the provision of the specialist service. Telehealth specialist services can be provided to patients when there is no patient-end support service provided.

MBS items numbers 99, 112, 149, 288, 389, 2820, 3015, 6016, 13210, 16399 and 17609 allow a range of existing MBS attendance items to be provided via video conferencing. These items have a derived fee which is equal to 50% of the schedule fee for the consultation item claimed (e.g. 50% of the schedule fee for item 104) when billed with one of the associated consultation items (such as 104). A patient rebate of 85% for the derived fee is payable.

From 1 January 2013, six new MBS item numbers (113, 114, 384, 2799, 3003 and 6004) are introduced to provide for an initial attendance via videoconferencing by a specialist, consultant physician, consultant occupational physician, pain medicine specialist/consultant physician, palliative medicine specialist/consultant physician or neurosurgeon where the service is 10 minutes or less. The new items are stand alone items and will not have a derived fee.

Where an attendance is more than 10 minutes, practitioners should use the existing item numbers consistent with the current arrangements. Normal restrictions which apply for initial consultations will also apply for these items. For example, if a patient has an initial consultation via telehealth, they cannot also claim an initial face-to-face consultation as part of the same course of treatment.

Clinical indications

The specialist, consultant physician or psychiatrist must be satisfied that it is clinically appropriate to provide a video consultation to a patient. The decision to provide clinically relevant support to the patient is the responsibility of the specialist, consultant physician or psychiatrist.

Telehealth specialist services can be provided to patients when there is no patient-end support service provided.

Restrictions

The MBS telehealth attendance items are not payable for services to an admitted hospital patient (this includes hospital in the home patients). Benefits are not payable for telephone or email consultations. In order to fulfill the item descriptor there must be a visual and audio link between the patient and the remote practitioner. If the remote practitioner is unable to establish both a video and audio link with the patient, a MBS rebate for a telehealth attendance is not payable.

Billing Requirements

All video consultations provided by specialists, consultant physicians or psychiatrists must be separately billed. That is, only the relevant telehealth MBS consultation item and the associated derived item are to be itemised on the account/bill/voucher. Any other service/item billed should be itemised on a separate account/bill/voucher. This will ensure the claim is accurately assessed as being a video consultation and paid accordingly.

Practitioners should not use the notation 'telehealth', 'verbal consent' or 'Patient unable to sign' to overcome administrative difficulties to obtaining a patient signature for bulk billed claims (for further information see mbsonline.gov.au/telehealth).

Eligible Geographical Areas

From 1 January 2013, geographic eligibility for telehealth services funded under Medicare will be determined according to the Australian Standard Geographical Classification Remoteness Area (ASGC-RA) classifications. A Telehealth Eligible Area will be those areas that are outside a Major City (RA1) according to ASGC-RA. Patients and providers are able to check their eligibility by following the links on the MBS Online website (www.mbsonline.gov.au/telehealth).

From 1 November 2012, there is a requirement for the patient and specialist to be located a minimum of 15km apart at the

time of the consultation. Minimum distance between specialist and patient video consultations are measured by the most direct (ie least distance) route by road. The patient or the specialist is not permitted to travel to an area outside the minimum 15 km distance in order to claim a video conference.

This rule will not apply to specialist video consultation with patients who are a care recipient in a residential care service; or at an Aboriginal Medical Service or an Aboriginal Community Controlled Health Service for which a direction made under subsection 19(2) of the Health Insurance Act 1973 as these patients are able to receive telehealth services anywhere in Australia.

Telehealth Eligible Service Areas are defined at www.mbsonline.gov.au/telehealth_eligible_areas

Record Keeping

Participating telehealth practitioners must keep contemporaneous notes of the consultation including documenting that the service was performed by video conference, the date, time and the people who participated.

Only clinical details recorded at the time of the attendance count towards the time of the consultation. It does not include information added at a later time, such as reports of investigations.

Extended Medicare Safety Net (EMSN)

All telehealth consultations are subject to EMSN caps. The EMSN caps for ART and Obstetric telehealth items 13210 and 16399 were set in reference to the EMSN caps applying to the base ART and Obstetric consultation items.

The EMSN caps for all other telehealth consultation items are equal to 300% of the schedule fee (to a maximum of \$500). The maximum EMSN benefit for a telehealth consultation is equal to the sum of the EMSN cap for the base item and the EMSN cap for the telehealth items.

Aftercare Rule

Video consultations are subject to the same aftercare rules as practitioners providing face-to-face consultations.

Multiple attendances on the same day

In some situations a patient may receive a telehealth consultation and a face to face consultation by the same or different practitioner on the same day.

Medicare benefits may be paid for more than one video consultation on a patient on the same day by the same practitioner, provided the second (and any following) video consultations are not a continuation of the initial or earlier video consultations. Practitioners will need to provide the times of each consultation on the patient's account or bulk billing voucher.

Referrals

The referral procedure for a video consultation is the same as for conventional face-to-face consultations.

Technical requirements

In order to fulfill the item descriptor there must be a visual and audio link between the patient and the remote practitioner. If the remote practitioner is unable to establish both a video and audio link with the patient, a MBS rebate for a telehealth attendance is not payable.

Individual clinicians must be confident that the technology used is able to satisfy the item descriptor and that software and hardware used to deliver a videoconference meets the applicable laws for security and privacy.

Category 1 – Professional attendances

MBS 2100

Level A - Telehealth attendance at consulting rooms

Professional attendance at consulting rooms of at least 5 minutes in duration (whether or not continuous) by a medical practitioner providing clinical support to a patient who:

- (a) is participating in a video conferencing consultation with a specialist or consultant physician; and
- (b) is not an admitted patient; and
- (c) either:
 - (i) is located both:
 - (A) within a telehealth eligible area; and

(B) at the time of the attendance-at least 15 kms by road from the specialist or physician mentioned in paragraph (a); or
(ii) is a patient of:

(A) an Aboriginal Medical Service; or

(B) an Aboriginal Community Controlled Health Service for which a direction made under subsection 19 (2) of the Act applies

Telehealth Item

Fee: \$22.45 Benefit: 100% = \$22.45

(See para A57 of explanatory notes to this Category)

Category 1 – Professional attendances

MBS 2122

Level A - Telehealth attendance other than at consulting rooms

Professional attendance not in consulting rooms of at least 5 minutes in duration (whether or not continuous) by a medical practitioner providing clinical support to a patient who:

(a) is participating in a video conferencing consultation with a specialist or consultant physician; and

(b) is not an admitted patient; and

(c) is not a care recipient in a residential care service; and

(d) is located both:

(i) within a telehealth eligible area; and

(ii) at the time of the attendance-at least 15 kms by road from the specialist or physician mentioned in paragraph (a);

for an attendance on one or more patients at one place on one occasion-each patient

Extended Medicare Safety Net Cap: 300% of the Derived fee for this item, or \$500, whichever is the lesser amount

Telehealth Item

The fee for item 2100 plus \$25.45 divided by the number of patients seen, up to a maximum of six patients. For seven or more patients - the fee for item 2100 plus \$1.95 per patient.

MBS 2125

Level A - Telehealth attendance at a residential aged care facility

A professional attendance by a medical practitioner (not being a service to which any other item applies) lasting at least 5 minutes (whether or not continuous) that requires the provision of clinical support to a patient who is:

a) a care recipient receiving care in a residential aged care service (other than a professional attendance at a self-contained unit); or

b) at consulting rooms situated within such a complex where the patient is a resident of the aged care service (excluding accommodation in a self-contained unit)

and who is participating in a video consultation with a specialist or consultant physician, on 1 occasion - each patient.

Extended Medicare Safety Net Cap: 300% of the Derived fee for this item, or \$500, whichever is the lesser amount

Telehealth Item

The fee for item 2100 plus \$45.80 divided by the number of patients seen, up to a maximum of six patients. For seven or more patients - the fee for item 2100 plus \$3.25 per patient.

Ready Reckoner

(See para A57 of explanatory notes to this Category)

MBS 2126

Level B - Telehealth attendance at consulting rooms

Professional attendance at consulting rooms of less than 20 minutes in duration (whether or not continuous) by a medical practitioner providing clinical support to a patient who:

(a) is participating in a video conferencing consultation with a specialist or consultant physician; and

(b) is not an admitted patient; and

(c) either:

(i) is located both:

(A) within a telehealth eligible area; and

(B) at the time of the attendance-at least 15 kms by road from the specialist or physician mentioned in paragraph (a); or

(ii) is a patient of:

(A) an Aboriginal Medical Service; or

(B) an Aboriginal Community Controlled Health Service for which a direction made under subsection 19 (2) of the Act applies

Telehealth Item

Fee: \$48.95 Benefit: 100% = \$48.95

(See para A57 of explanatory notes to this Category)

Extended Medicare Safety Net Cap: \$146.85

MBS 2137

Level B - Telehealth attendance other than at consulting rooms

Professional attendance not in consulting rooms of less than 20 minutes in duration (whether or not continuous) by a medical practitioner providing clinical support to a patient who:

(a) is participating in a video conferencing consultation with a specialist or consultant physician; and

(b) is not an admitted patient; and

(c) is not a care recipient in a residential care service; and

(d) is located both:

(i) within a telehealth eligible area; and

(ii) at the time of the attendance-at least 15 kms by road from the specialist or physician mentioned in paragraph (a);

for an attendance on one or more patients at one place on one occasion-each patient

Extended Medicare Safety Net Cap: 300% of the Derived fee for this item, or \$500, whichever is the lesser amount

Telehealth Item

The fee for item 2126 plus \$25.45 divided by the number of patients seen, up to a maximum of six patients. For seven or more patients - the fee for item 2126 plus \$1.95 per patient.

Ready Reckoner

(See para A57 of explanatory notes to this Category)

MBS 2138

Level B - Telehealth attendance at residential aged care facility

Professional attendance of less than 20 minutes in duration (whether or not continuous) by a medical practitioner providing clinical support to a patient who:

(a) is participating in a video conferencing consultation with a specialist or consultant physician; and

(b) is a care recipient in a residential care service; and

(c) is not a resident of a self-contained unit;

for an attendance on one or more patients at one place on one occasion-each patient

Extended Medicare Safety Net Cap: 300% of the Derived fee for this item, or \$500, whichever is the lesser amount

Telehealth Item

The fee for item 2126 plus \$45.80 divided by the number of patients seen, up to a maximum of six patients. For seven or more patients - the fee for item 2126 plus \$3.25 per patient.

Ready Reckoner

(See para A57 of explanatory notes to this Category)

MBS 2143

Level C - Telehealth attendance at consulting rooms

Professional attendance at consulting rooms of at least 20 minutes in duration (whether or not continuous) by a medical practitioner who provides clinical support to a patient who:

(a) is participating in a video conferencing consultation with a specialist or consultant physician; and

(b) is not an admitted patient; and

(c) either:

(i) is located both:

(A) within a telehealth eligible area; and

(B) at the time of the attendance - at least 15 kms by road from the specialist or physician mentioned in paragraph (a); or

(ii) is a patient of:

(A) an Aboriginal Medical Service; or

(B) an Aboriginal Community Controlled Health Service for which a direction made under subsection 19 (2) of the Act applies

Telehealth Item

Fee: \$94.95 Benefit: 100% = \$94.95

(See para A57 of explanatory notes to this Category)

Extended Medicare Safety Net Cap: \$284.85

MBS 2147

Level C - Telehealth attendance other than at consulting rooms

Professional attendance not in consulting rooms of at least 20 minutes in duration (whether or not continuous) by a medical practitioner providing clinical support to a patient who:

(a) is participating in a video conferencing consultation with a specialist or consultant physician; and

(b) is not an admitted patient; and

(c) is not a care recipient in a residential care service; and

(i) is located both:

(A) within a telehealth eligible area; and

(B) at the time of the attendance - at least 15 kms by road from the specialist or physician mentioned in paragraph (a);

for an attendance on one or more patients at one place on one occasion-each patient

Telehealth Item

The fee for item 2143 plus \$25.45 divided by the number of patients seen, up to a maximum of six patients. For seven or more patients - the fee for item 2143 plus \$1.95 per patient.

(See para A57 of explanatory notes to this Category)

Extended Medicare Safety Net Cap: 300% of the Derived fee for this item, or \$500, whichever is the lesser amount

MBS 2179

Level C - Telehealth attendance at residential aged care facility

A professional attendance by a medical practitioner (not being a service to which any other item applies) lasting at least 20 minutes (whether or not continuous) that requires the provision of clinical support to a patient who is:

a) a care recipient receiving care in a residential aged care service (other than a professional attendance at a self-

contained unit); or

b) at consulting rooms situated within such a complex where the patient is a resident of the aged care service (excluding accommodation in a self-contained unit); and who is participating in a video consultation with a specialist or consultant physician, on 1 occasion - each patient.
Telehealth Item

The fee for item 2143 plus \$45.80 divided by the number of patients seen, up to a maximum of six patients. For seven or more patients - the fee for item 2143 plus \$3.25 per patient.
(See para A57 of explanatory notes to this Category)

Extended Medicare Safety Net Cap: 300% of the Derived fee for this item, or \$500, whichever is the lesser amount

MBS 2195

Level D - Telehealth attendance at consulting rooms

Professional attendance at consulting rooms of at least 40 minutes in duration (whether or not continuous) by a medical practitioner providing clinical support to a patient who:

(a) is participating in a video conferencing consultation; and

(b) is not an admitted patient; and

(c) either:

(i) is located both:

(A) within a telehealth eligible area; and

(B) at the time of the attendance - at least 15 kms by road from the specialist or consultant physician mentioned in paragraph (a); or

(ii) is a patient of:

(A) an Aboriginal Medical Service; or

(B) an Aboriginal Community Controlled Health Service for which a direction made under subsection 19 (2) of the Act applies

Telehealth Item

Fee: \$139.70 Benefit: 100% = \$139.70

(See para A57 of explanatory notes to this Category)

Extended Medicare Safety Net Cap: \$419.10

MBS 2199

Level D - Telehealth attendance other than at consulting rooms

Professional attendance not in consulting rooms of at least 40 minutes in duration (whether or not continuous) by a medical practitioner providing clinical support to a patient who:

(a) is participating in a video conferencing consultation with a specialist or consultant physician; and

(b) is not an admitted patient; and

(c) is not a care recipient in a residential care service; and

(d) is located both:

(i) within a telehealth eligible area; and

(ii) at the time of the attendance - at least 15 kms by road from the specialist or physician mentioned in paragraph (a);

for an attendance on one or more patients at one place on one occasion-each patient

Telehealth Item

The fee for item 2195 plus \$25.45 divided by the number of patients seen, up to a maximum of six patients. For seven or more patients - the fee for item 2195 plus \$1.95 per patient.

(See para A57 of explanatory notes to this Category)

Extended Medicare Safety Net Cap: 300% of the Derived fee for this item, or \$500, whichever is the lesser amount

MBS item 2220

Level D - Telehealth attendance at residential aged care facility

A professional attendance by a medical practitioner (not being a service to which any other item applies) lasting at least 40 minutes (whether or not continuous) that requires the provision of clinical support to a patient who is:

a) a care recipient receiving care in a residential aged care service (other than a professional attendance at a self-contained unit); or

b) at consulting rooms situated within such a complex where the patient is a resident of the aged care service (excluding accommodation in a self-contained unit);

and who is participating in a video consultation with a specialist or consultant physician, on 1 occasion - each patient.
Telehealth Item

The fee for item 2195 plus \$45.80 divided by the number of patients seen, up to a maximum of six patients. For seven or more patients - the fee for item 2195 plus \$3.25 per patient.

Ready Reckoner

(See para A57 of explanatory notes to this Category)

Extended Medicare Safety Net Cap: 300% of the Derived fee for this item, or \$500, whichever is the lesser amount

Note A57

A57 Telehealth Patient-end Support Services by Health Professionals

These notes provide information on the telehealth MBS attendance items for medical practitioners to provide clinical support to their patients, when clinically relevant, during video consultations with specialists or consultant physicians under items 2100, 2122, 2125, 2126, 2137, 2138, 2143, 2147, 2179, 2195, 2199 and 2220 in Group A30.

Telehealth patient-end support services can only be claimed where:

- a Medicare eligible specialist service is claimed;
- the service is rendered in Australia; and
- where this is necessary for the provision of the specialist service.

A video consultation will involve a single specialist or consultant physician attending to the patient, with the possible participation of another medical practitioner, a participating nurse practitioner, a participating midwife, practice nurse or Aboriginal health worker at the patient end. The above time-tiered items provide for patient-end support services in various settings including, consulting rooms, other than consulting rooms, eligible residential aged care services and Aboriginal Medical Services.

Clinical indications

The specialist or consultant physician must be satisfied that it is clinically appropriate to provide a video consultation to a patient. The decision to provide clinically relevant support to the patient is the responsibility of the specialist or physician.

Telehealth specialist services can be provided to patients when there is no patient-end support service provided.

Collaborative Consultation

The practitioner, who provides assistance to the patient where this is necessary for the provision of the specialist service, may seek assistance from a health professional (e.g. a practice nurse or Aboriginal health worker) but only one item is billable for the patient-end support service. The practitioner must be present during part or all of the consultation in order to bill an appropriate time-tiered MBS item. Any time spent by another health professional called to assist with the consultation may not be counted against the overall time taken to complete the video consultation.

Restrictions

The MBS telehealth attendance items are not payable for services to an admitted hospital patient (this includes hospital in the home patients). Benefits are not payable for telephone or email consultations. In order to fulfill the item descriptor there must be a visual and audio link between the patient and the remote practitioner. If the remote practitioner is unable to establish both a video and audio link with the patient, a MBS rebate for a telehealth attendance is not payable.

Eligible Geographical Areas

From 1 January 2013, geographic eligibility for telehealth services funded under Medicare will be determined according to the Australian Standard Geographical Classification Remoteness Area (ASGC-RA) classifications. A Telehealth Eligible Area will be those areas that are outside a Major City (RA1) according to ASGC-RA. Patients and providers are able to check their eligibility by following the links on the MBS Online website (www.mbsonline.gov.au/telehealth).

From 1 November 2012, there is a requirement for the patient and specialist to be located a minimum of 15km apart at the time of the consultation. Minimum distance between specialist and patient video consultations are measured by the most direct (ie least distance) route by road. The patient or the specialist is not permitted to travel to an area outside the minimum 15 km distance in order to claim a video conference.

This rule will not apply to specialist video consultation with patients who are a care recipient in a residential care service; or at an Aboriginal Medical Service or an Aboriginal Community Controlled Health Service for which a direction made under subsection 19(2) of the Health Insurance Act 1973 as these patients are able to receive telehealth services anywhere in

Australia.

Telehealth Eligible Service Areas are defined at www.mbsonline.gov.au/telehealth-eligible-areas

Record Keeping

Participating telehealth practitioners must keep contemporaneous notes of the consultation including documenting that the service was performed by video conference, the date, time and the people who participated.

Only clinical details recorded at the time of the attendance count towards the time of the consultation. It does not include information added at a later time, such as reports of investigations.

Multiple attendances on the same day

In some situations a patient may receive a telehealth consultation and a face to face consultation by the same or different practitioner on the same day.

Medicare benefits may be paid for more than one video consultation on a patient on the same day by the same practitioner, provided the second (and any following) video consultations are not a continuation of the initial or earlier video consultations. Practitioners will need to provide the times of each consultation on the patient's account or bulk billing voucher.

Extended Medicare Safety Net (EMSN)

Items which provide for telehealth patient-end support services are subject to EMSN caps equal to 300% of the schedule fee (to a maximum of \$500). This is consistent with Government policy relating to capping EMSN for MBS consultation services.

Aftercare Rule

Video consultations are subject to the same aftercare rules as face to face consultations.

Referrals

The referral procedure for a video consultation is the same as for conventional face-to-face consultations.

Technical requirements

In order to fulfill the item descriptor there must be a visual and audio link between the patient and the remote practitioner. If the remote practitioner is unable to establish both a video and audio link with the patient, a MBS rebate for a specialist video consultation is not payable.

Individual clinicians must be confident that the technology used is able to satisfy the item descriptor and that software and hardware used to deliver a videoconference meets the applicable laws for security and privacy.

Bulk billing

Bulk bill incentive items 10990 or 10991 may be billed in conjunction with the telehealth items 2100, 2122, 2125, 2126, 2137, 2138, 2143, 2147, 2179, 2195, 2199 and 2220.

Duration of attendance

The practitioner attending at the patient end of the video consultation does not need to be present for the entire consultation, only as long as is clinically relevant - this can be established in consultation with the specialist. The MBS fee payable for the supporting practitioner will be determined by the total time spent assisting the patient. This time does not need to be continuous.

Attachment A

Store and Forward Dermatology Consultations 2013 using telederm@uq.edu.au

AND there were approx 120 external referrals from the following

Beaudesert 1

Bundell 1

Childers 1

Dalby 2

Dirranbandi 2

Gold Coast Hospital 4

GP (directly from a private GP) 1

Inverell Community Centre 2

Ipswich 4

Kingaroy 2

Lismore 1

Logan Hospital 15

Mater Hospital 2

Mt Isa 34

QEII 16

QID 1

Redland 4

Toowoomba 5

Townsville 4

Wacol detention centre 1

Warwick 2

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- ⁱ Program Guidelines: Financial Incentives for Telehealth (2011-12)
<http://www.medicareaustralia.gov.au/provider/incentives/telehealth/>
- ⁱⁱ Lim AC, Egerton IB, See A, Shumack SP. Accuracy and reliability of store-and-forward teledermatology: preliminary results from the St George Teledermatology Project. *Australas. J. Dermatol.* 2001; 42: 247–51.
- ⁱⁱⁱ See A, Lim AC, Le K, See JA, Shumack SP. Operational teledermatology in Broken Hill, rural Australia. *Australas. J. Dermatol.* 2005; 46: 144–9.
- ^{iv} Tait CP, Clay CD. Pilot study of store and forward teledermatology services in Perth, Western Australia. *Australas. J. Dermatol.* 1999; 40: 190–3.
- ^v <https://www.acrrm.org.au/tele-medicine>
- ^{vi} <http://www.ruralhealthaustralia.gov.au/internet/publications/publishing.nsf/Content/MSOAP-VOS-evaulation~MSOAP-VOS-evaulation-3~MSOAP-VOS-evaulation-3-2>
- ^{vii} AIHW 2007. Cancer in Australia: an overview, 2006. Cat. No. CAN 32. Canberra. AIHW Viewed 15 February 2013.
- ^{viii} Britt H, Miller GC, Valenti L (2001). *'It's different in the bush' A comparison of general practice activity in metropolitan and rural areas of Australia 1998-2000.* AIHW Cat. No. GEP 6. Canberra: Australian Institute of Health and Welfare (General Practice Series No. 6)
- ^{ix} Australian Bureau of Statistics. Population Distribution, Aboriginal and Torres Strait Islander Australians, 2006. Available from URL: <http://www.abs.gov.au/ausstats/ABS@.nsf/e8ae5488b598839cca25682000131612/14e7a4a075d53a6cca2569450007e46c!OpenDocument>. (Accessed 3 Nov 2010.)
- ^x Christopher Heyes, Jonathan Chan, Anne Halbert, Christopher Clay, et al. Dermatology outpatient population profiling: Indigenous and non-indigenous dermatoeidemiology *Australasian Journal of Dermatology* (2011) 52, 202–206
- ^{xi} Ann Chang Brewer. Mobile Applications in Dermatology. *JAMA Dermatology*, 2013; DOI: 10.1001/jamadermatol.2013.5517
- ^{xii} Armstrong AW, Sanders C, et., al *Evaluation and Comparison of Store-and-Forward Teledermatology Applications. Telemedicine and e-Health (2010): 424-439*
- ^{xiii} <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Main+Features20April+2013>
- ^{xiv} Sinclair R. 2012. Skin Cancer:Skin Checks. *Australian Family Physician*, 41(7):464-469
- ^{xv} 1.Australian Government Department of Health and Ageing. Medicare Online. Available at www.medicareaustralia.gov.au/public/claims/medicare-online.jsp [Accessed 26 April 2012].
- ^{xvi} 2.Australian Government Department of Health and Ageing. Available at [ww.skincancer.gov.au/internet/skincancer/publishing.nsf/Content/background-1](http://www.skincancer.gov.au/internet/skincancer/publishing.nsf/Content/background-1) [Accessed 26 April 2012].
- ^{xvii} Charles J, Britt H, Ng A. 2005 Management of inflammatory skin conditions in Australian general practice. *Australian Family Physician* 34(5):316-317