The Royal Australian College of General Practitioners

TELEHEALTH STANDARDS FOR GENERAL PRACTICES ON THE USE OF VIDEO CONSULTATION

Background paper

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File name: Telehealth standards: Background paper

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Last updated: 6 July 2011

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Purpose

The purpose of this paper is to provide a background and general understanding on telehealth, the proposed MBS telehealth items, and the need for general practice telehealth standards. The intended audience is current users of telehealth in Australian general practice, general practitioners (GPs), and other health professionals.

1. Background

Australia is a large country with a relatively small and disparate population spread over a large area.[1] The current healthcare situation of uneven distribution of resources, inadequate access to rural and remote population, and rising health costs are presenting challenges, not just to general practice, but Australian healthcare as a whole.

Globally, healthcare systems are facing many challenges such as an ageing population, increasing incidence of chronic disease, patients living in remote areas or with limited mobility, and increasing expectations of patient-centred care.[2]

In the Australian context, health workforce shortages in rural and remote areas, and the decreasing cost of technology, has seen the acceleration and adoption of telehealth services.[3] The Australian healthcare system is experiencing a phase of rapid change and reform.

Telehealth offers a potential solution to the above challenges by transcending the conventional boundaries of distance, time, and institutional structures. The critical role that telehealth can play in expanding the reach of health professionals, and access of patients to them, is becoming more evident.[4]

2. Telehealth

2.1 Definition

Telehealth essentially means ‘healing’ ‘at a distance’.[5] It is the electronic transmission and storage of health information/images in the delivery of both clinical and nonclinical health related services, utilising a range of telecommunications technologies.[6]

The following components are included:

- the clinical consult is not performed in the traditional face-to-face method but via a digital medium (eg. voice recording, video)
- information is transferred electronically to a healthcare professional at a second location
- the healthcare professional employs clinical skills and judgment to provide healthcare and feedback to the patient.[2]

Telehealth can be delivered via technologies that are either asynchronous (ie. store and forward such as email) or synchronous, (ie. real time such as video consultation).[2] Telehealth relates to services provided by health professionals including GPs, nurses and specialists, and is distinct from telemedicine which refers to the use of technology to share information over a distance between healthcare providers.[2,5]

Regardless of how telehealth is defined, the focus should be on the patient and healthcare delivery, not just the technology.[7] The RACGP is using the term 'telehealth', and for the purpose of this discussion paper, will refer to the use of video technology for video consultations between specialists and the patient, and the patient support, ie. GP, practice nurse, or registered Aboriginal health worker.

2.2 Need for telehealth

Rural and remote communities generally have a relatively low ratio of consulting medical specialist proportional to their population. National figures for secondary and tertiary medical specialists (FTE) per 100 000 population, across different geographic areas, are as follows:

- major cities 122.0 specialists per 100 000 population
- inner regional 56 specialists per 100 000 population
- outer regional 38 specialists per 100 000 population
- remote/very remote 16 specialists per 100 000 population.[8]

The ability to see the patient's condition live (via a video session) and receive digital information regarding a patient's vital signs, clinical test results, and diagnostic imaging, may allow for earlier and improved access to specialist opinion and advice, thus reducing investigation time, diagnosis and treatment.

The use of telehealth consultations may also reduce the duplication of diagnostic tests, and the need to transfer patients to tertiary services, thus reducing the burdensome travel time and associated costs for patients their families and health service providers, and improving patient outcomes in a more timely manner. By allowing patients to stay in their own communities, caregivers and other health care professionals (who might not be free to travel) can participate in patient consultations thus facilitating a team approach and improving continuity of care.[9]

Evidence from international experience such as Canada has demonstrated that 97% of patients are satisfied with telehealth, while 83% of healthcare professionals believed that the team worked better as a result of telehealth. Indeed there were almost 260 000 telehealth events in Canada in 2010.[10]

2.3 Potential benefits: Australian healthcare system

Greater efficiencies and cost reductions may be achieved through the use of video consultation by reducing healthcare professionals' travel time, reducing avoidable health system utilisation, reducing unnecessary transfers, and increasing productivity by allowing healthcare professionals to provide more consultations.[10]

Telehealth will assist in meeting the current and future needs of the Australian healthcare system by:

- enabling fair and equitable access to health, particularly to rural, remote, and Aboriginal and Torres Strait Islander patients
- improving the quality of healthcare
- supporting the sustainability of the Australian healthcare system
- reducing the cost of healthcare
- making better use of the contemporary specialist workforce.[11]

2.4 Potential benefits to patients

A key benefit of video consultation through telehealth is the enhancement of patient-centred care. Telehealth has many potential benefits including the potential for increased specialist access for populations that are currently experiencing isolation, such as those who reside in rural and remote locations.[4] Benefits to remote and rural patients will be a significant outcome for this group who are known to suffer poorer health status when compared with urban dwelling Australians.[3] By utilising video consulting

technology, patients who would not otherwise have ready access to specialist services can receive care which is comparable to that which is provided in metro areas.[10]

A Queensland study demonstrated that 96% of patients who travelled to Brisbane to access their paediatrician had travel related costs while only 21% of those with a telemedicine appointment experienced such costs.[12] Importantly, telehealth may also assist providing earlier assessment and treatment of health conditions. Social benefits may include reducing the time away from work and minimising social dislocation of families.

The further development of telehealth and video consultation for Aboriginal and Torres Strait Islander patients is also critically important given their significant disparities in the health status, morbidity and mortality rates. Improvements in quality of care may also be an outcome of video consultation as patients with chronic diseases are better supported.[10]

In summary potential benefits to patients may include:

- reduced patient travel
- increased access to health services locally
- better access to essential healthcare
- improved timeliness of healthcare
- reduced need for patients to take extended amounts of time off work
- reduced need to make lengthy family or day care arrangements
- reduced time away from home
- sustainability of rural communities.[13]

2.4 Potential benefits to healthcare professionals

Providing video consultation via telehealth will not only benefit patients, but also the health professionals involved in their care. Telehealth could play a vital role in the recruitment and retention of the rural general practice workforce. The ability to provide an enhanced local service, a perception of reduced isolation, improved communication between healthcare providers, and increased skill and confidence with information technology are some of the potential benefits for healthcare professionals.[3]

Collaboration between healthcare professionals at a distance can also reinforce clinical diagnoses; one example being that a rural GP may not have the experience required to diagnose a dermatology condition from a possible 2000 conditions.[14]

In summary potential benefits to healthcare professionals may include:

- reduced need for specialist travel to rural and remote clinics
- provision of specialist services
- increased frequency of clinics by identifying patients who would benefit from a telehealth video consultation
- provision of an alternative method of communication with rural and remote medical staff
- ability to upskill local medical staff in different specialist areas through telehealth video consultation.[15]

3. Telehealth standards

The safe and successful implementation of healthcare via video consultation will depend on the development of general practice profession based protocols, procedures, and standards.[2] Despite the benefits, telehealth will highlight new ‘duty of care’ and ‘standard of care’ issues including:

- allocation of roles and responsibilities
- reliability of data
- steps that must be taken to ensure telehealth is safe
- formulation of practice guidelines and standards
- drafting of contracts and agreements between healthcare providers and facilities
- increased patient expectations.[16]

Establishing standards for telehealth services will improve clinical outcomes and promote informed and reasonable patient expectations.[17] Standards will also be critical to achieving the full potential of telehealth video consultations. There is a need for clear and transparent structures for determining service scheduling and service delivery protocols.[10]

3.1 Medicare Benefits Scheme items and government initiatives

From 1 July 2011, the government will expand the Medicare Benefits Scheme (MBS) to include items for telehealth services. This will include $352.2 million for Medicare rebates for online consultations, incentives for GPs and specialists to participate, and online training.[18]

The government will implement several telehealth initiatives including:

- Medicare rebates for online consultations, particularly in rural and remote areas, across a range of specialties (these will not include telephone or email consultation)
- financial incentives for specialists, GPs, and other health professionals to participate in the delivery of online services
- training and supervision for health professionals using online technologies.

Twenty-three new patient end attendance items for GPs, practice nurses, and Aboriginal health workers, have been introduced for telehealth consultations. The new GP item numbers are effectively a 35% loading on the standard consultation item numbers.[19] General practitioners, practice nurses, and Aboriginal health workers, will be able to bill the relevant telehealth item number in combination with both a telehealth service incentive and a bulk billing incentive. In addition to the new item numbers and episodic consultation incentives, there is also a $6000 incentive when a health practitioner provides their first telehealth consultation.[20]

The recently released government ‘Digital Economy Strategy’ is aimed at improving the infrastructure and health and aged care and will include a $5.5 million package aimed at assisting people in regional areas access ‘quality healthcare’ through telehealth and health outreach services. The government aims to place Australia in the OECD’s top five digital economies by 2020.[21]

As the National Broadband Network (NBN) is rolled out and real time high bandwidth video consultation becomes more available, the demand for telehealth will grow. These initiatives represent a significant advancement and opportunity for the delivery of specialist services via telehealth.

3.2 Standards development

Given these initiatives, there is an urgent need for the establishment and implementation of nation-wide telehealth standards within general practice to ensure the identification of potential risks and risk mitigation strategies, including protocols for establishing patient identification, protecting patient privacy, and determining the level of clinical appropriateness of video consulting. Within Australia there has been limited development in standards as the majority of telehealth projects have been offered on a pilot or regional scale, or transmitted via protected hospital networks.

The development of standard procedures will be essential to the successful use and uptake of the telehealth MBS items, by identifying:

- the process for identifying participants in telehealth consultations
- determining if telehealth is appropriate for the individual patient or individual consultation
- determining if a patient's attendance at a video consultation with a specialist requires clinical support by a GP or practice nurse or registered Aboriginal health worker at the patient end
- privacy and security of the consultation and data.

The RACGP is currently undertaking this work which will guide GPs through telehealth consultations and provide a safety and quality framework for patients and GPs.

Glossary of terms

Asynchronous: A term used to describe store and forward transmission of medical images or information because the transmission typically occurs in one direction in time.[22]

Distant Site: The distant site is defined as the telehealth site where the provider/specialist is seeing the patient at a distance or consulting with a patient's provider. The site may also be referred to as the consulting site.[17]

Standard: A statement established by consensus or authority, that provides a benchmark for measuring quality, that is aimed at achieving optimal results (NIFTE Research Consortium, 2003).[17]

Synchronous: This term is sometimes used to describe interactive video connections because the transmission of information in both directions is occurring at exactly the same period.[17]

Telehealth: The electronic transmission and storage of health information/images in the delivery of both clinical and nonclinical health related services, utilising a range of telecommunications technologies.[6]

Telemedicine: The delivery of healthcare services between geographically separated individuals, using telecommunication systems, eg. videoconferencing.[23]

Videoconferencing: Real time, generally two way transmission of digitized video images between multiple locations; uses telecommunications to bring people at physically remote locations together for meetings. Each individual location in a *videoconferencing* system requires a room equipped to send and receive video.[17]

Teleconsultation: Clinical consultation carried out using a telemedical service.[23]

References

1. Muir J, Lucas L. Tele-dermatology in Australia. In: Latifi R, editor. Principles and practices of telemedicine and e-health. Amsterdam: IOS Press; 2008.
2. McLean S, Protti, D, Sheikh, A. Telehealthcare for long term conditions. BMJ. 2011;342:374–8.
3. Moffatt J, Eley D. The reported benefits of telehealth for rural Australians. Australian Health Review. 2010;34:276–81.
4. Jarvis-Selinger S, Chan E, Payne R, Plohman K, Ho K. Clinical telehealth across the disciplines: lessons learned. Telemedicine and e-health. 2007;14(7):720–6.
5. World Health Organisation. Telemedicine. Opportunities and developments in member states. Report on the second global survey on eHealth. Geneva: World Health Organisation, 2009.
6. RACGP. RACGP Submission to the Department of Health and Ageing. Telehealth standards. Melbourne: The Royal Australian College of General Practitioners, 2011.
7. Loane M, Wootton R. A review of the guidelines and standards for telemedicine. Journal of Telemedicine and Telecare. 2002;8:63–71.
8. Department of Health and Ageing. Report of the Audit of Health Workforce in Rural and Regional Australia, April 2008. Canberra: Commonwealth of Australia, 2008.
9. RACGP. Submission to Department of Health and Ageing. Discussion paper. Connecting health services with the future: modernising Medicare by providing rebates for online consultations. Melbourne: The Royal Australian College of General Practitioners, 2011.
10. Praxia, Gartner. Telehealth benefits and adoption: connecting people and providers across Canada. A study commissioned by Canada Health Infoway: Canada Health Infoway; 2011. Available at www2.infoway-inforoute.ca/Documents/telehealth_report_summary_2010_en.pdf.
11. Brear M. Evaluating telemedicine: lessons and challenges. Health Information Management Journal. 2006;35(2):23-31.
12. Smith A, Gray L. Telemedicine across the ages. Med J Aust. 2009;190(1):15–9.
13. Queensland Health. Telehealth benefits to patients. Queesland Government; 2011 [cited 2011 1st June]; Available at www.health.qld.gov.au/qhcss/telehealth/patients/benefits.asp.
14. McColl I. Dermatology education on the web. Journal of Telemedicine and Telecare. 2003;9(Supplement 2):33–5.
15. Queensland Health. Advantages of telehealth for Queensland Health clinicians. Queensland Government; 2011 [cited 2011 1st June]; Available at www.health.qld.gov.au/qhcss/telehealth/clinicians/helping.asp.
16. Department of Human Services Victoria. Telemedicine. Creating virtual certainty out of remote possibilities. Melbourne: Department of Human Services Victoria; 1999 [cited 2011 1st June]. Available at www.dhs.vic.gov.au/ahs/archive/telemed/1.htm.
17. Yellowlees P, Shore J, Roberts L. Practice guidelines for videoconferencing-based telemental health: American Telemedicine Association; 2009. Available at www.americantelemed.org/files/public/standards/PracticeGuidelinesforVideoconferencing-Based%20TelementalHealth.pdf.

18. Department of Broadband Communication and Digital Economy. NBN. Empowering Australia. Canberra: Australian Government; 2011 [cited 2011 1st June]; Available at www.nbn.gov.au/health-and-aged-care-2/government-initiatives/medicare-benefits-schedule-expansion.

19. MBS online. Available at: www.mbsonline.gov.au/internet/mbsonline/publishing.nsf/Content/connectinghealthservices-patient-end-qa.

20. The Hon Nicole Roxon MP. Media release. Telehealth fees unveiled. 6 June 20112011: Available at www.yourhealth.gov.au/internet/ministers/publishing.nsf/Content/mr-yr11-nr-nr116.htm?OpenDocument&yr=2011&mth=06.

21. Colley A. Labor pumps $70m in NBN, digital economy. The Australian. 2011.

22. American Telemedicine Association. Core standards for telemedicine operations: American Telemdicine Association; 2007. Available at www.americantelemed.org/i4a/pages/index.cfm?pageid=1.

23. Coiera E. Clinical communication and telemedicine. In: Coiera E, editor. Guide to health informatics. London: Arnold; 2003.