The Royal Australasian
College of Physicians

From the President

24 February 2011

Mr Andrew McGowan
Inquiry Secretary
House of Representatives
Standing Committee on Infrastructure and Communications
PO Box 6021
Parliament House
CANBERRA ACT 2600

Via email: ic.reps@aph.gov.au

Dear Mr McGowan

Inquiry into the role and potential of the National Broadband Network

The Royal Australasian College of Physicians (the College) welcomes the
opportunity to provide a submission to the House of Representatives' Standing
Committee on Infrastructure and Communications *Inquiry into the role and potential
of the National Broadband Network.*

The College regards the National Broadband Network as an enabler of better
delivery of health care services to rural and remote Australians by means of e-health
and telehealth. We attach a copy of our submission to the Department of Health and
Ageing on the subject of telehealth.

Please contact Lucy Hartland on   or   if you
require clarification on the issues raised in the attached submission.

Yours sincerely

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Response to discussion paper "Connecting Health Services With The Future: Modernising Medicare By Providing Rebates For Online Consultations."

Executive Summary

The Royal Australasian College of Physicians (RACP) welcomes the opportunity to comment on the discussion paper for the Government's telehealth initiative, providing funding of $402.2 million over four years for:

- Medicare rebates for online consultations;
- financial incentives to participate in delivering online services;
- expansion of the General Practitioners' (GP) after hours helpline, with inclusion of the capacity for the helpline to provide online triage and basic medical advice via video-conferencing; and
- training and supervision in online technologies.

Telehealth will lead to significant improvements in the health of patients in rural and remote areas by providing better and expanded access to medical specialist care. Physicians can assist in developing appropriate models of care. They can also play a central role in determining which medical specialties are best suited to care given by means of telehealth, and in what circumstances telehealth is the appropriate model of care.

Remuneration for telehealth consultations should take into account the relative value of physician consultation as compared with a GP consultation, and whether patient reimbursement is appropriate by duplication of existing MBS items for physicians or by creating new derived MBS items. Remuneration should also take into account the preparation required before each consultation, in order to ensure that all the clinical information and history details, medications, investigations and other information are available at the time of the consultation.

Uptake of computer technologies by physicians has been slow in comparison with that by GPs. The RACP considers that the government's proposal to provide financial incentives for physicians will be of great assistance in helping physicians adapt to the technology and to participate in telehealth. It is essential to develop standardised protocols (for example, messaging, the use of secure messaging protocol, and how the consultation should be recorded), software and hardware to enable compatibility between users and compatibility with the National E-Health Transition Authority protocols for e-health hardware and software.

Pilot programs would also assist in encouraging the adoption of telehealth among clinicians and in building up trust among clinicians and the community generally. Such pilot programs could be based in some of the "first release" sites for the National Broadband Network - although successful telehealth programs are currently working with existing technology and communications. Feedback from pilot programs would be of assistance in refining the general implementation of telehealth, including aspects discussed elsewhere in this paper. The RACP is available to work with the Department regarding specific pilot programs, especially in rural and remote Australia.

Certain other potential barriers to the uptake of telehealth, such as privacy concerns and confidentiality, data handling and security, and uncertainties in the medicolegal setting could be explored in further discussions. The RACP would be pleased to assist in further consultation of these and other issues arising from the discussion paper.

Background

The Australian Government's Telehealth initiative represents a major step forward in the delivery of specialist services to patients living in rural and remote areas. Similarly, telehealth can be utilised in urban and outer urban regions to deliver services to the frail and elderly, for example residents of nursing homes and other supported accommodation. Rural and remote patients are disadvantaged in comparison with patients living in urban areas in their access to specialist services. This means that they will incur greater difficulties in terms of time and expense in obtaining these services, and commonly must leave their communities in order to do so. Rural and remote patients often receive these services later in the course of their illnesses than their urban counterparts. In some cases, rural and remote patients simply go without such services. This translates into poorer outcomes for rural and remote patients generally, a greater overall burden of disease within the community and potentially avoidable costs for health services.

This major development should lead to significant improvements in the health of rural patients.[1] Patients will benefit directly from having direct access to advice from physicians in a timely manner. However, the benefits of better access go beyond improving the clinical outcome of a patient presenting with a clinical problem. They include:

- social benefits to the patient not needing to leave their region for care, meaning that the patient is more likely to be able to fulfil his or her family responsibilities, work responsibilities and social responsibilities;
- the closer involvement of the patient's regular GP (or other health care professional) in care;
- the easier management of patients whose care is managed or assisted by parents, carers and other support people from a logistical point of view (this is particularly valuable for aboriginal patients);
- improved confidence in those with chronic conditions that they can continue to live in and participate in their local communities and still have access to specialist health care; and
- the enhanced sustainability of rural communities as a result of people feeling more comfortable and confident about living in rural areas.

There are also benefits for all health care professionals involved, and these will also ultimately lead to better patient outcomes. On an informal level, there will be an enhanced rapport between specialists and rural health professionals which will contribute to the support available to rural health professionals and decrease their professional isolation. This should assist in the recruitment and retention of rural health professionals.

Telehealth should also be available to regional specialists to communicate and manage patient care with local GPs and patients in their settings. Telehealth should not just be for communication with tertiary specialists.

For the purpose of this submission, telehealth is understood to refer to video-consultation and not initially to teleconference consultation, unless to augment a video-conference with poor auditory connection. It may be worth considering other applications, including teleconferencing in association with specific electronic monitoring equipment, for example pacemakers.

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[1] Moffatt JJ and Eley DS "The Reported benefits of Telehealth for Rural Australians", *Australian Health Review*, 2010 234 276-281.

Optimal Practice Models

Telehealth is a powerful method of delivering specialist health care to patients in rural and remote areas. The full potential of telehealth is yet to be explored, but developments in Australia and overseas indicate that this potential is enormous.

There are many ways in which telehealth as currently envisaged could be delivered. The typical model envisaged for telehealth consultations involves a patient together with a GP or another health care professional together in consultation with via video-link with a medical specialist. The GP (or other health care professional) can facilitate the consultation by providing technical assistance, additional information, carrying out the physical examination or clarifying the clinical history. The GP, with his or her knowledge of the services available locally, can also assist the physician in determining the management of the patient.

Physicians can also provide patient care via video-link with the patient alone (with or without support persons). An example could be the ongoing management of diabetic control. This is a different method of carrying out the usual form of consultation between physician and patient, the only difference being that the patient is remotely located. The patient's venue may be a room at a GP clinic or other private location that is both private and secure. Ideally, the technology would require minimal receptionist or other support. An advantage of using a GP clinic as the patient's venue is that it may be possible to include the GP in the consultation where necessary.

As telehealth develops, it may be possible to expand its uses into other settings such as:
- clinics, for example sexual health, dermatology and rehabilitation clinics;
- aged care facilities and other facilities caring for frail and immobile patients;
- in patients' homes, for example with the assistance of a visiting nurse (particularly for neonatal, paediatric and palliative care patients);
- hospital emergency departments, intensive care units and other acute care wards, particularly in settings where the need for advice is urgent; and
- other secure facilities in the community care setting.

Finally, it may be appropriate for GPs or other health care professionals to consult a physician in the absence of the patient, that is, asynchronous consultation. This is particularly so in the context of a pre-existing relationship between a patient, GP and specialist with respect to the patient's condition. An example could be a rural patient who has psoriasis which is difficult to treat that is being managed by a city based dermatologist. In this case, if this patient sees the local GP because the psoriasis is spreading, it may not be possible to link up at the same time with the dermatologist, because for example, the dermatologist is attending a hospital. The GP could transmit high definition video of the lesions to the dermatologist together with other key information for review later in the day. In the context of pre-existing knowledge of the patient, the dermatologist could advise the GP on the next appropriate step including, where appropriate, a video-conference with the patient. The GP could then contact the patient with the advice.

Various practice models may be appropriate at any given time. Thus, the initial encounter with a patient may be a face to face consultation, while subsequent consultations may be carried out via video-conferencing, either with or without an accompanying health care professional. It may become apparent in the course of a particular video-conference that a patient should be seen in person, either by the physician or by some other person and arrangements for this to occur may be made.

To take the example of a neurologist:
- A patient with epilepsy who requires six monthly or annual consultations to monitor his/her response to anti-epileptic medication: in this case, the patient may consult the neurologist without an accompanying health care professional present.
- A patient recovering from a stroke at home who requires a review of her/ his progress: in this case, the patient may consult the neurologist together with the local GP, where the GP or health care professional can carry out physical examination as directed by the neurologist (this would also be appropriate for review by rehabilitation specialists and others).
- A patient suffering an acute stroke who may benefit from thrombolysis: in this case, the emergency care physicians may consult with the neurologist on whether to administer thrombolytic therapy and to assist in monitoring the patient's condition after such therapy (an example being the current telestroke program).[2]

As with current direct consultations with a physician, an appropriate referral from a GP will be needed. There may be issues where the initial treatment or contact with the physician was out of the patient's local area, but this is a problem that currently exists.

Optimal Specialities
A broad range of medical specialities in Australia are already involved in the delivery of medical care by way of telehealth. Consultation and cognitive specialties are more likely to adopt telehealth consultation, whereas examination based, investigative or procedural specialties require direct consultation. For example in Queensland, specialties involved include:[3]
- Paediatrics;
- Endocrinology (Diabetes);
- Cardiology (Heart Failure);
- Geriatrics;
- Clinical Pharmacology;
- Rehabilitation;
- Nephrology (Renal Services); and
- Oncology.

Other specialities are currently involved in providing services by means of telehealth, include dermatology,[4] palliative care[5] and neurology.[6] Many other scenarios are yet to be explored in Australia, although developments overseas indicate that telehealth is capable of effectively delivering a far greater range of services across a greater range of specialties to rural and remote patients at a local level than they have currently.[7]

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[2] See http://www.broadband.unimelb.edu.au/main.php?id=442 (describing the "Telestroke" study).
[3] See generally http://www.health.qld.gov.au/qhcss/telehealth/patients/helping.asp.
[4] Moffatt JJ and Eley DS "The Reported benefits of Telehealth for Rural Australians", *Australian Health Review*, 2010 234 276-281. Table 1 lists some telehealth services in Australia (Paediatrics; Endocrinology; Radiology; Dermatology; Nephrology; Ophthalmology; Palliative care; Psychiatry; Obstetrics and Gynaecology; Surgery.
[5] See http://www.healthnetworks.health.wa.gov.au/cancer/home/telehealth.cfm. See also Moffatt JJ and Eley DS "The Reported benefits of Telehealth for Rural Australians", *Australian Health Review*, 2010 234 276-281. Table 1.
[6] This is the subject of a current investigation: see http://www.broadband.unimelb.edu.au/main.php?id=442 (describing the "Telestroke" study).
[7] In particular, the United Kingdom (mainly in Scotland, Wales), Canada and United States.

Determining which are the optimal specialities for telehealth will require further consultation with the various specialities and the RACP will be able to assist in this process.

Remuneration Models
Remuneration should recognise the relative value of physician consultation as compared with a GP consultation. There a number of ways this could be achieved including by restructuring MBS items to include duplication of items for physicians or by creating derived items, similar to psychiatry.

An important aspect of a successful video-conference is good preparation. Medicare funding will need to take into account the need for a high standard of documentation to be provided in advance of the consultation. This is to ensure that all the clinical information and history details, medications, investigations and other information are available at the time of the consultation. This information can be assembled by a nurse or health practitioner co-ordinator. There needs to be a "right patient, the right information, the right place and the right time with the right clinician" approach for successful telehealth consultation.

Financial Incentives
Physicians have yet to utilise electronic technology to the extent that GPs have.[8] Unlike the situation in general practice, computer use is not a central part of the way in which physicians conduct their practices in their consulting rooms, the most usual venue in which they deal with patients.

Against this background, the Australian Government's specific proposal to provide incentives is welcomed by the RACP, as this will assist greatly in helping physicians engage with telehealth. The development and implementation of a Specialist Practice Incentives program (SPIP) is encouraged.

The Australian Government's support has been a key factor in the high utilisation rates of computer technology by GPs.[9] GPs have received financial support since 1998 including an initial government investment in infrastructure with funding given to the General Practice Computing Group (now ceased), as well as incentive payments for utilising that technology.[10] The Practice Incentives Program currently provides incentive payments to general practices that maintain and keep up to date with technology via the PIP eHealth Incentive. A similar successful SPIP scheme could be implemented for medical specialists, either via an incentive payment per service or an upfront set up fee and maintenance fee provided. Such infrastructure would also be an enabler for the uptake of other e-health systems within the physician community.

Training and Support
In order to support the development of telehealth, funding of $30 million has been envisaged for all specialists, GPs and Allied health members to become competent

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[8] Osborn M, Day R and Westbrook J "Are Specialist Physicians Missing Out on the e-health Boat?" IMJ 39 (2009) 655-661.
[9] See Kidd MR and Mazza D, "Clinical Practice Guidelines and the Computer on Your Desk" 2000 MJA 173 pp 373-375 (documenting computer usage rates of 15% in 1997 and 70% in 2000). See also McInnes K, Saltman D, Kidd M "General Practitioners Use of Computers for Prescribing and Electronic Health Records: Results from a National Survey" MJA 2006 (documenting a usage rate of 90%).
[10] See Royal College of General Practitioners, "RACGP Continues To Support The General Practice Computing Group", Media Release (RACGP, 18 August 2005) (available at http://www.gpcg.org.au/images/stories/pdfs/news/10805racgp_gpcg.pdf).

at video-conferencing. As noted previously, because of lower rates of use of computers, physicians may need more training and support than GPs.

To facilitate this, it would be helpful if aspects of video-conferencing are standardised, including messaging, the use of secure messaging protocol, and how the consultation should be recorded. That will, in turn, allow standardisation in training.

Support systems would also benefit from standardised training as support technicians would know what level of knowledge a specialist or other user might be likely to have, and will be able to give appropriate assistance. Reliable and easy to access support will encourage the development of physicians' telehealth skills and increase their confidence and willingness to use the technology.

The establishment of pilot programs would assist greatly in encouraging the adoption of telehealth among clinicians and in building up trust among clinicians and the community generally. Such pilot programs could be based in some of the "first release" sites for the National Broadband Network.[11] Feedback from the pilot programs would also assist in refining the general implementation of telehealth schemes.

Technical Issues
The National Broadband Network will be an integral part of telehealth technology. This will support video-conferencing so that there are no interruptions and that high quality images and sound are transmitted. Optimal use of video-conferencing will require the ability to transmit diagnostic quality images, for example real time examination of patients or of diagnostic images.[12] As noted, telehealth technology has great potential and the National Broadband Network will allow it to develop.

The currently low utilisation rates of computers by medical specialists will take some time to improve, and this time would be usefully spent ensuring that the technological aspects of the telehealth system are developed

As with training and support issues, standardisation of software and hardware compatibility in order for seamless communication would contribute to the smooth running of telehealth services. Some jurisdictions have already invested in telehealth systems and any new system should be compatible with it. This could be developed with appropriate consultation with specialists and GPs, who are already familiar with many of the practical aspects.

Limitations to Uptake of Telehealth
There are a number of other factors which may need to be addressed in order to maximise the uptake of telehealth. As with any new development, patients and health care professionals alike may be initially cautious about adopting telehealth. The proposals discussed above will go a long way to assisting adoption, but there are some discrete areas that could be examined further.

Privacy and Confidentiality
Patients may initially be reluctant to engage in video-conferencing because of uncertainty that their privacy and the confidentiality of their information will be adequately protected. The patients, and the Australian public generally, will need

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[11] Described in detail at http://www.nbnco.com.au/wps/wcm/connect/first-release/site-base/home/.
[12] This was covered in detail with respect to diagnostic imaging in Royal Australasian College of Surgeons, "Digital Diagnostic Imaging", position paper (RACS, 15 September 2009).

reassurance of the security and integrity of information obtained and transmitted during telehealth consultations.

Concerns about privacy and the confidentiality may be especially significant for patients with sensitive medical problems including those who fear they will be unable to get insurance as a result of their conditions. Uptake of telehealth by psychiatric patients is low, and there may also be difficulties with patients who have communication problems.

Confidence in the system may be assisted by avoiding the routine retention of the video-conference session. This would be one way to assure patients that their privacy will be respected. The encryption of identifying data including any images taken will also assist.

To a lesser extent, confidentiality of the video-conference is also an issue for practitioners including physicians, in part for medicolegal reasons. Measures such as clear standards as to the set up of video-conference and the disclosure of the identity of every person present will help. To support the integrity of video-conferences, consideration could be given as to technological interventions to prevent unauthorised recording of consultations and whether additional legal protections against secret recordings should be introduced.

Data handling
Apart from issues in relation to privacy and confidentiality, discussed above, issues in relation to data handling will need to be considered. The RACP recommends that the video-conference session itself should not routinely be the record of the consultation. There are many disadvantages to doing so, not least because such a record would not function as a useful record that can be consulted quickly and easily. The routine retention of video-conferences may raise storage issues. Such video-conferences may also be liable to be used in legal proceedings. Such a use would subject a practitioner to unprecedented levels of scrutiny and would severely inhibit the willingness of any practitioner to be involved.

It may, however, be appropriate to retain video-conference sessions either wholly or in part for future reference. For example, it may be useful to have a record of a patient's skin complaint, for comparison with images taken at a later date. A record of a patient's gait is another example. Provided the patient consents, his or her identity is protected and there are clear limits on the use of a video-conference, it could retained for educational purposes for a limited period.

Medicolegal Considerations and Medical Indemnity Insurance Coverage
Further consideration needs to be given to the medicolegal aspects of delivering services by way of telehealth, including the way in which such services are covered by existing medical indemnity insurance. A number of issues arise, including those already referred to above. These might be best explored with the input of the medical defence organisations and the Australian Health Practitioners Regulation Agency.

Conclusion
The RACP welcomes the opportunity to be involved in the development of telehealth, which promises to lead to significant improvements in the health of remote and rural Australians.

The RACP would be pleased to assist in further consultation following this discussion paper and any other issue arising out of this discussion paper.