



Guidelines and Practical Tips



The Royal Australasian
College of Physicians

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Telehealth: Guidelines and Practical Tips

The Royal Australasian College of Physicians (RACP) publication Telehealth: Guidelines and Practical Tips has been developed as part of the Physicians Telehealth Support Project, a federal government project funded through the Connecting Health Services with the Future initiative.

Telehealth: Guidelines and Practical Tips is based on and adapted from the 2012 Australian College of Rural and Remote Medicine (ACRRM) Telehealth Advisory Committee's TeleHealth Standards Framework, with input and direction from RACP members and the Physicians Telehealth Support Project Team.



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Welcome from the Royal Australasian College of Physicians President, Associate Professor Leslie E Bolitho AM FRACP FACRRM

Dear Fellows

The RACP acknowledges the Australian Government's initiative with the introduction of telehealth, and recognises the potential and significant benefits to patients who will be able to access healthcare with the assistance of modern videoconferencing technology in a wide range of clinical settings.

Telehealth offers physicians an alternative way of reaching patients and at the same time can increase patient access to specialist medical advice. Telehealth significantly reduces the barriers commonly experienced by rural and remote patients in accessing specialist care such as travel, time and cost. Through facilitated consultations with a physician over the internet, telehealth also has benefits for residents of aged-care facilities, people with mobility difficulties and those living in remote Indigenous communities. The use of videoconferencing can support training and education, and encourages stronger relationships between the physician and other healthcare providers.



The *Telehealth: Guidelines and Practical Tips* is provided for Fellows and trainee members for reference and advice, and will assist you in extending your knowledge and application of telehealth for your patients.

As part of the Physicians Telehealth Support Project, the Guidelines were developed with reference to the ACRRM Telehealth Advisory Committee's (ATHAC) *TeleHealth Standards Framework*, the International Organisation of Standardisation *Draft Standards on Telehealth* and the Medical Board of Australia *Guidelines for Technology Based Patient Consultations*.

I encourage all physicians to evaluate telehealth and explore how you can incorporate telehealth, where applicable, into your clinical "toolkit".

Associate Professor Leslie E Bolitho AM
President RACP



1.

Introduction to telehealth

Telehealth, in the context of the Australian healthcare setting, can be defined as the use of videoconferencing technologies to conduct a medical consultation where audio and visual information is exchanged in real time. Telehealth can be conducted between a specialist and patient in the presence of their general practitioner or other health worker, or can be conducted with no medical support at the patient end.

These Guidelines provide practical advice and tips on how to conduct telehealth consultations effectively. Telehealth consultations should be conducted in accordance with existing best practice clinical standards and models of care for face-to-face consultations. While telehealth is not designed to replace face-to-face consultations, it can be used to enhance and simplify ongoing specialist services to patients whose access might otherwise be limited.

The Guidelines focus on the experience of physicians using telehealth in conjunction with Medicare Benefits Schedule (MBS) telehealth incentive items. Physicians using telehealth in a different clinical setting, such as public or private hospitals, may be subject to additional obligations not covered in this document.

The Guidelines have been written to provide guidance and advice to physicians with the aim that telehealth consultations are delivered to the same standard as consultations conducted in person.



Clinical aspects of telehealth

Selecting patients for telehealth

Physicians should determine which patients are suitable for telehealth based on available resources, technology and the urgency of medical care. Physicians providing telehealth consultation services should determine whether a telehealth consultation is the most appropriate type of consultation for each patient.

The patient and/or their informal carer need to be able and willing to participate in the telehealth consultation.

The decision to use telehealth incorporates the following factors:

- Clinical: continuity of care, shared care, and the best model of care for the individual.
- Practical: availability of appropriate technology and patient-end support. The quality of the technology at the remote site will play a significant role in the information gained during the clinical consultation.

- Patients' needs: ability of the patient to travel, plus their family, work and cultural situation. Physicians should also consider the patient's capacity to participate. For example, a video consultation may be inappropriate for patients with vision or hearing impairments.

Where to provide telehealth services

Specialists should aim to provide telehealth services according to usual referral lines, which are traditionally based on the nearest available specialist. Telehealth does enable a specialist at a greater distance to help provide services to a region where specialists may be overloaded (such as where there are workforce shortages). It is most important that the provision of specialist care via telehealth does not undermine the role of the regional physician and, in turn, impede recruitment and retention of specialists to regional centres.

"Cherry picking" – that is, providing telehealth services from an urban area during office hours when there are nearer appropriate specialists – is inappropriate. Generally, services would not be provided across state boundaries except where there has been a tradition of referral from neighbouring interstate towns. It would be generally expected that in providing telehealth consultations, the specialist has knowledge of the region and an ongoing rapport with the healthcare providers in that region. Ideally, outreach visits would be made to establish this rapport.

Subspecialists should accept referrals in a manner that supports a generalist model of care, such as accepting patients who have been initially assessed by a regional general physician. In accepting referrals for telehealth, specialists should consider whether timely, in-person specialist consultation services are available for the patient in their region.

Provider relationships

Wherever possible, and with the patient's consent, in cases where a local healthcare provider is already involved in the patient's care, physicians should support the continuation of the patient's relationship with local healthcare providers. The local healthcare provider may benefit from participating in the telehealth consultations in order to improve the patient's continuity of care and their general medical knowledge, and every effort should be made to facilitate their direct involvement.

Informing the patient about telehealth

Before conducting a telehealth consultation, physicians should ensure patients understand how the consultation will proceed. This may include:

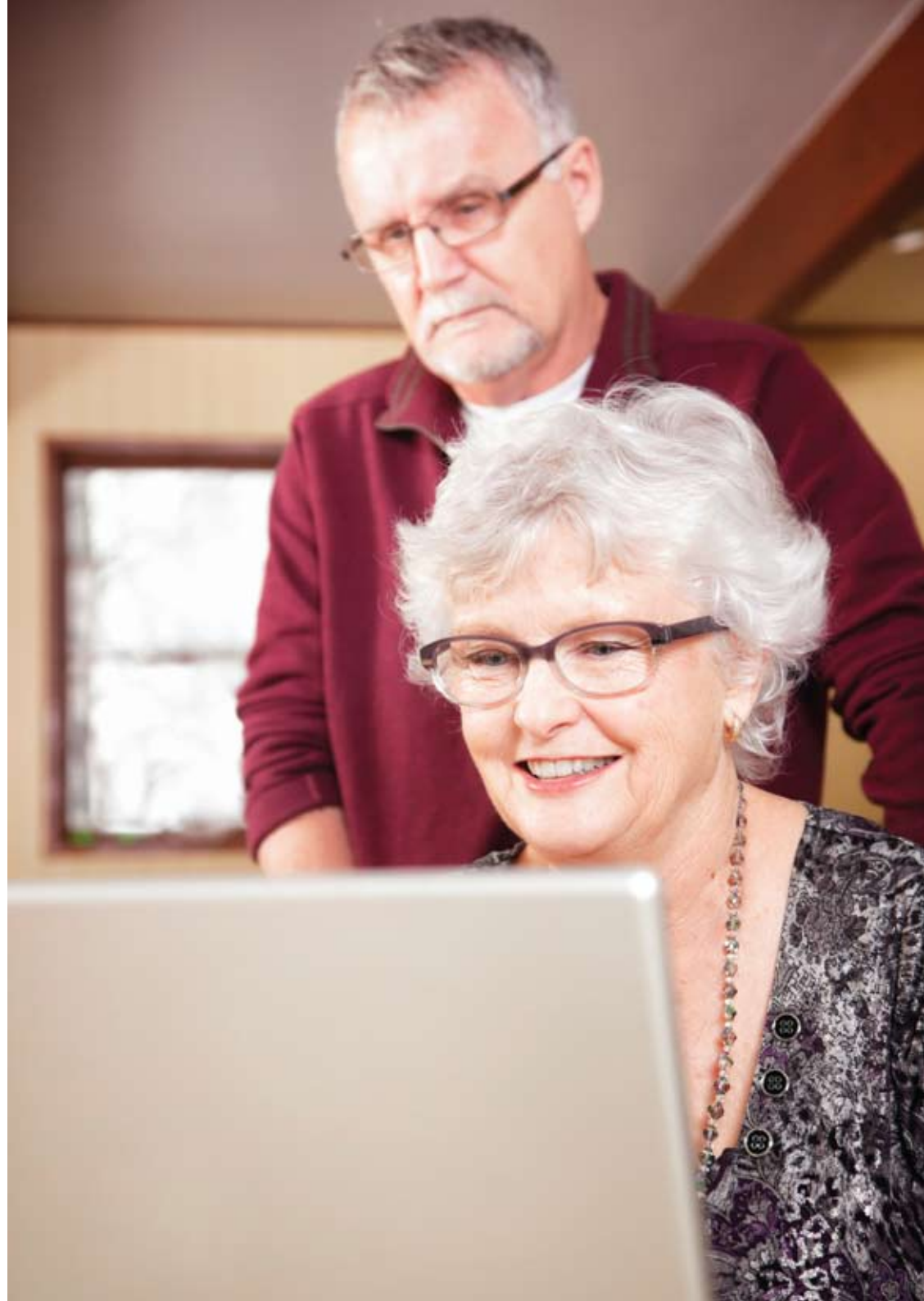
- providing the patient with plain language information about telehealth
- informing patients of the other available care options
- informing patients of any out-of-pocket charges for telehealth consultations, compared to other available options
- indicating the length of the telehealth consultation.

Physicians may need to liaise with the patient-end health worker to ensure the patient is sufficiently informed. In cases where there is no health worker at the patient end, the specialist will need to ensure that the patient has been given adequate information regarding the telehealth consultation.

Seeking patient consent

Physicians should be satisfied that patients have consented to participate in the telehealth consultation. In cases where the patient is not competent and does not have the capacity to give consent, consent should be obtained in the same way as in a face-to-face consultation. The physician or patient-end practitioner may have to arrange for consent to be given by a family member or friend who has the requisite legal authority (for example, enduring guardianship) to give consent on the patient's behalf.

In cases where a recording is to be used for education or assessment purposes, the patient should be informed of this and give consent to how the recording is to be used. A patient's verbal consent to the recording of the consultation, and how the recording is to be used, should be given at the start of the telehealth consultation and recorded.



Conducting the consultation

The role of telehealth in the overall management of the patient should be determined by the physician and other relevant healthcare providers. The role of telehealth will depend on the specialty of the physician and the patient's condition and location. Physicians should be mindful of the limitations of telehealth and communicate these limitations to all videoconference participants.

Guidance for conducting consultations

Telehealth is no different from any other medical consultation and should be conducted in a similar manner to a face-to-face consultation. A telehealth consultation of high quality is one in which recommendations for assessment, clarification of diagnosis, and recommendations for treatment and review are clearly communicated as per current best practice models of care.

In supported consultations, a health worker from the referring healthcare organisation is present with the patient for some or all of the video consultation with the specialist. The referring health worker should confirm the identity of the patient to the specialist or health service, and confirm the identity and credentials of the distant specialist to the patient.

For unsupported consultations, the patient may be alone or may elect to have a family member or carer present during the consultation. For the first unsupported consultation, the specialist and patient introduce themselves and the specialist provides some background information, including their credentials and experience.

Privacy and confidentiality

Telehealth consultations should be private and confidential, and physicians should have processes in place to facilitate this as per standard face-to-face consultations. The patient's privacy and confidentiality should be maintained at all times. The patient's privacy is protected by considering what risks there are to privacy when using telehealth, and developing procedures to manage such risks. Some procedures physicians should use to manage risks to privacy and confidentiality include:

- Having a system to ensure that there are no interruptions at the specialist and patient ends of the consultation
- Ensuring patients participating in the telehealth consultation from home do so in a quiet room where they will not be disturbed
- Alerting other staff at their practice location that they are conducting a telehealth consultation and asking not to be disturbed
- If a consultation is to be recorded, storing the recording securely and ensuring privacy and confidentiality is maintained
- When choosing videoconferencing hardware and software for telehealth, considering the security features of the telehealth system to ensure the technology used facilitates privacy and confidentiality
- Maintaining appropriate storage of all reports provided for, or generated from, the telehealth consultation
- If there is a valid and clinically appropriate reason for the recording of a consultation, fully informing the patient and receiving their consent.



4.

Technical aspects of telehealth

Basic requirement of telehealth

The basic requirement of telehealth is the transfer of audio and visual data in real time between the specialist and the patient. To conduct telehealth consultations, telehealth-specific hardware or software, or the use of telehealth and videoconferencing rooms in hospitals, are not necessary as some consumer-based products can be used effectively.

The choice to use particular technologies rests with individual clinicians and is dependent on context.

Adequate performance

The information and communications technology used for telehealth should be fit for the clinical purpose of the consultation. Specifically:

- the equipment is reliable and works well over the locally available network and bandwidth
- the equipment is compatible with equipment used by the patient end health worker
- the equipment and network are secure, and privacy and confidentiality during the consultation can be ensured
- the equipment is of a high enough quality to facilitate good communication between all participants and accurate transfer of clinical information.

Risk management

Physicians should conduct a risk analysis to determine the likelihood and magnitude of foreseeable problems. Physicians should be mindful of the limitations of technology being used and have procedures in place for detecting, diagnosing and fixing equipment problems.

When selecting telehealth technologies, physicians should consider the availability of technical support services during the times the equipment will be operating. Physicians should be mindful when choosing telehealth technology solutions that some consumer-based products do not offer support services.

Physicians should ensure they have a back-up plan in cases of equipment or connectivity failure, which is proportionate to the consequences of failure. For non-urgent consultations, rescheduling or completing the consultation by telephone may be sufficient.

If urgent medical assistance is likely to be provided by telehealth, physicians might consider installing an uninterruptible power supply and a second source of connectivity. In addition, if urgent consultations are to be considered they should only occur in a context where there is a patient-end practitioner present who has sufficient skills to resuscitate and arrange patient transfer if required. In general, urgent consultations are more appropriate as a triage tool.



Glossary

Hardware: the physical components of a computer that either complete processing tasks, store information or provide an interface for the input and output of data (webcams and monitors).

Healthcare provider: a health professional involved in the ongoing care and treatment of a patient, for example, GPs, physicians and allied health professionals.

Health worker: any worker who may have contact with a patient in a health care setting, including health care providers and non-clinical staff.

Patient end: the end of the videoconference where the patient is located during the telehealth consultation.

Patient-end practitioner: the healthcare provider (for example, general practitioner (GP), nurse, Aboriginal health worker) who is with the patient during the telehealth consultation to offer in-person support.

Software: programs and applications that allow a computer to perform certain tasks, including word processing, email and videoconferencing.

Specialist end: the end of the video consultation where the specialist physician is located.

Supported consultation: a telehealth consultation where a health worker provides in-person support to the patient while they speak to the specialist via videoconference.

Telehealth: usually defined as the provision of health care from a distance (note: these Guidelines refer specifically to consultations conducted via videoconference.)

Unsupported consultation: a telehealth consultation where there is no health worker with the patient during the videoconference.



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Appendix 1 Practical tips for telehealth

1. Commencing telehealth
2. Conducting telehealth consultations
3. Technical considerations
4. Sustainable use of telehealth

1. Commencing telehealth

Determining the appropriateness of telehealth

Telehealth patients may be referred by a GP who requests that the consultation be conducted via videoconference, with the GP in attendance to support the patient. These supported consultations can allow the supporting GP, or other health worker in attendance, to conduct a physical examination and communicate their findings to the specialist during the videoconference. In some instances, a sufficient clinical relationship may exist to allow the physician to rely on the observed and described findings of the patient-end practitioner at the time of the telehealth consultation. Physicians should determine if a physical examination is necessary, that is, whether inspection and auscultation provide sufficient information. Physicians should consider if the need for a physical consultation will make an unsupported telehealth consultation unfeasible.

Relationships with other health care providers

Before conducting supported consultations, physicians and the patient-end practitioner should discuss their respective roles for the consultation and ongoing care. They should determine who will deliver aspects of care, including who takes responsibility for ordering tests, writing scripts and follow-up. For unsupported consultations, physicians should inform the patient of the need for any tests or follow-up, and arrange these if necessary.

Physicians and patient-end practitioners should determine a protocol for how the consultation is to be noted. If two health care providers are consulting with the patient at the same time, they should each keep their own notes on their own record systems. Documentation should include any information typically

recorded after an in-person consultation, such as details of initial and present complaints, review of systems, past history, relevant family and social history, medications, allergies, physical examination and investigation results, and assessment and plan.

Physicians may choose to register on telehealth provider directories so they can be contacted by medical practitioners seeking specialist advice.

Skills of practitioners

Physicians may like to participate in training to gain the technical and contextual knowledge to conduct telehealth consultations more effectively. In addition to the medical skills and knowledge needed to provide specialist medical advice, physicians should be familiar with the best ways to use telehealth. Physicians can access the *RACP Introduction to Telehealth* online module to gain the skills needed to use telehealth effectively.

2. Conducting telehealth consultations

For face-to-face consultations, the patient should be informed about the role of each person who is involved in delivering their care by telehealth. If a medical practitioner is present in a supported consultation, the specialist and patient-end practitioners should have discussed their respective roles and clearly explained these roles to the patient.

Physicians may need to ask patients extra questions to compensate for the loss of face-to-face contact during telehealth consultations. For example, physical changes may be less apparent during telehealth consultations so physicians may need to ask additional questions to confirm any physical changes.

Managing the physical environment

Before conducting unsupported consultations, physicians should ensure their patients are in a room suited to telehealth. Patients should ensure that the room has adequate and direct lighting and is free of background noise. To maintain privacy, the specialist should advise the patient of the need to conduct the consultation in a private and quiet area and to ensure that the patient will not be disturbed.

The room set-up used for telehealth should have:

- adequate physical space to conduct consultations (for example, assess gait, include family or carers) that ensures the privacy and comfort (physical and emotional) of the patient without the possibility for disturbance
- allows the equipment to be used effectively (for example, good lighting, little or no background noise, distance for best use of camera).

Evaluating the use of telehealth

After their first use of telehealth, the patient should be asked for an evaluation of the experience. If the patient is making long-term use of telehealth, this evaluation should be repeated at regular intervals or, if warranted, by a change in the patient's condition. Evaluations should be conducted by somebody who was not present during the consultation. The timing and structure of evaluations should be determined by physicians, based on the use and purpose of the telehealth consultation.

Some questions to ask patients include:

- Has the patient been able to clearly see and hear the physician at all times during the consultation?
- Have there been any connection drop-outs, blurriness of the image, or muffled sound at the patient end?
- Has the patient received the medical care and advice they require?
- Would the patient be willing to engage in a telehealth consultation in the future?

At suitable intervals, it is best practice for physicians to evaluate the usefulness of telehealth across their organisation as a whole, and make decisions about the continuing range and volume of telehealth used by the organisation. Physicians may like to regularly review and modify their telehealth processes to optimise the provision of care via telehealth.

3. Technical considerations

The software and hardware specifications for telehealth will vary depending on individual circumstances. For basic videoconferencing with patients, the following hardware is recommended:

- a webcam and microphone
- speakers (or headphones)
- internet connection.

There are many facilitated solutions and web-based products that can be used to conduct successful telehealth consultations. The equipment and connectivity should be tested jointly by the participating health worker before the first scheduled telehealth consultation to ensure quality and reliability.

Specialist-end technology

Physicians may like to begin with a basic telehealth set-up, and progress to more advanced solutions as they become more experienced with telehealth. Physicians may like to use technology recommended by referring GPs or others who will be supporting the patient during the telehealth consultation. A set-up where the telehealth consultation video is on a separate screen from the computer which is used for electronic medical records/radiology/pathology will facilitate a more streamlined consultation. The webcam should be positioned at the top of the screen, above the image of the patient/patient-end health worker, so that physicians can maintain eye contact. If they are conducting a large number of consultations, physicians may wish to consider installing a separate internet connection specifically for telehealth.

Patient-end technology

Physicians should be mindful that the quality of the patient-end hardware can significantly influence the quality of care that can be provided by a telehealth consultation and available technology may need to be considered before choosing to conduct a telehealth consultation. At both the physician's site and the remote site, a higher quality of audio and video hardware will enhance the quality of communication during the consultation. High-quality video equipment can facilitate the identification of the patient's physical signs whereas lower quality equipment may limit a consultation to little more than a conversation between physician and patient.

A webcam at the remote site with inbuilt pan and tilt capabilities can provide enhanced control for clinical assessment. This type of camera allows the physician to adjust their point of focus to permit closer inspection of the patient without the need for a person at the remote site (who may not appreciate what is the intended focus of attention) to physically redirect the camera. In addition, peripheral devices, such as digital stethoscopes, can be used at the patient end to transfer medical information to the specialist. If peripheral devices are to be used during the telehealth consultation, they should be used in a fit-for-purpose manner jointly determined by the patient-end clinician and the specialist.

Security

All the healthcare organisations participating in the telehealth consultation, plus the network or other means of connection, should meet the standards required for security of storage and transmission of health information.

The International Telecommunications Union (ITU) has defined protocols and standards by which videoconferencing technology should communicate to ensure secure transmission of encrypted data. ITU recommends that video conferencing technology adhere to their H235 standard to ensure encrypted data transmission. Videoconferencing technology that is capable of communicating using the ITU H323, H264 and SIP protocols will ensure communication is feasible across a wide range of different platforms. This contrasts with the use of proprietary systems which will only communicate with other platforms using their specific proprietary system. Physicians are encouraged to use standards-based technologies when available.

The patient should be informed that standards-based systems are used to protect their privacy and data security, but total protection cannot be guaranteed. If non-standards-based systems are used, then the patient should be informed about any additional risks to quality, reliability or security. The patient should also be informed of, and give consent to, any recording of the consultation and any future use of the recording.

4. Sustainable use of telehealth

Management of business environment

Physicians and healthcare organisations should implement telehealth in a planned manner, including:

- developing or using a business case (that is, considering the costs, benefits and sustainability of telehealth)
- consulting with the staff about the workflow and other changes telehealth will introduce
- making a formal decision to implement telehealth, and then supporting the changes needed for implementation
- assessing the need for staff training or professional development in telehealth, and enabling this to occur
- including telehealth in its continuous quality improvement program
- ensuring that the telehealth service is covered by insurance and professional indemnity.

Physicians commencing telehealth should deliver telehealth in a sustainable way to ensure long-term patient outcomes.

Practice scheduling

Physicians, and healthcare organisations, should have a system for coordinating and booking the people, equipment and space needed for telehealth. The telehealth equipment should be accessible when needed to ensure continuity of care. The use of a dedicated telehealth room (if possible) will ensure the optimal room set-up, minimise interruptions to the consultation and potentially allow multiple healthcare workers to use a single suite of hardware.

Consultations should be conducted as required, in addition to, or in replacement of, in-person consultations. Routine consultations that are to be conducted via telehealth should be booked in advance to ensure all participants can attend. Delays in starting telehealth consultations may have ramifications for patient-end practitioners at the remote site. All telehealth participants should therefore try not to inconvenience the other parties. Physicians may choose to dedicate a certain time each week for telehealth patients.

At the end of each consultation, the physician should clearly inform the patient of the time and date of their next appointment, or other follow-up plans, and whether the consultation will be conducted in person or via videoconference.





For support, contact the RACP
Telehealth Support Officer on **02 9256 5432**

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The Royal Australasian
College of Physicians

About The Royal Australasian College of Physicians (RACP)

The RACP trains, educates and advocates on behalf of more than 13,500 physicians – often referred to as medical specialists – and 5,000 trainees, across Australia and New Zealand.

The College represents more than 32 medical specialties including paediatrics and child health, cardiology, respiratory medicine, neurology, oncology and public health medicine, occupational and environmental medicine, palliative medicine, sexual health medicine, rehabilitation medicine, geriatric medicine and addiction medicine.

Beyond the drive for medical excellence, the RACP is committed to developing health and social policies which bring vital improvements to the wellbeing of patients. **www.racp.edu.au**