TELEHEALTH GUIDELINES RESPONSE TO COVID-19

April 2020

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01 Introduction – Response to COVID-19

Purpose of the guidance

In an extremely challenging and rapidly developing moment in time, where we are faced with a pandemic that is altering the way we live and interact, we are needing to rethink the way we do everything. This means we must make rapid decisions that are based on the best available evidence because we recognise, that in a time like this, we must take action. We will make mistakes, as decisions will not have the rigour attached that we would expect in a world that was functioning according to existing rules. However; we are a well-informed, educated and critical thinking profession – we can use the information we have available to ensure that we do our bit to contribute to reducing both the short- and long-term impact of this pandemic.

We firmly believed that telehealth was going to become a standard part of care in the near future, and as such had been investing significant resources into developing knowledge. The near future has arrived sooner than anticipated. This means we have compacted our timelines. It does not mean that we have relaxed our criteria for delivering safe and effective services. These guidelines have been developed in a fraction of the time that we would normally have available to us – but we believe they represent a sound guidance for the profession that will provide reassurance to consumers, government and funders that we are well prepared for this.

The science and practice of digitally-supported physiotherapy have undergone rapid growth in recent years – there has never been a better time to provide a rapid solution because suitable, affordable and consumer friendly technology has never been so freely available. This provides physiotherapists with new ways to deliver treatments of known effectiveness and to provide innovative treatment strategies underpinned by modern technologies that will provide continuity of care for clients, and some degree of business continuity for practitioners for the impending period.[1]

The purpose of these guidelines is to give physiotherapists providing physiotherapy via real-time (synchronous) video consultation with a framework that will help ensure the safety and quality of their practice within the context of an emergency response to COVID-19. It has been specifically designed for rapid initiation and the concepts have been simplified where possible with this in mind. We have tried to find a balance between being comprehensive and palatable for an overwhelmed audience.

Definition of Telehealth

In the context of this guide, telehealth is a consultation where the client and physiotherapist are simultaneously present during the consultation and have synchronous audio-visual communication but are not co-located. For the purposes of this guidance we will call these *video-consultations*.

Telehealth consultations should be conducted in accordance with existing best practice clinical standards and models of care for face-to-face consultations. It is implicit in these guidelines that all normal standards of practice apply to telehealth as they would in face-to-face consultations.

02 Overview

Adherence to professional standards and ethical principles remains critical

Physiotherapists and the organisations in which they work need to adhere to the same ethical principles that they would were digital technologies not being used.

Telehealth is no different from any other 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 assessment, clarification of diagnosis, and recommendations for treatment and review are clearly communicated as per current best practice models of care.

This framework is intended to guide physiotherapists and their practices to continue to treat their existing client base and to accept new referrals for telehealth services. Physiotherapists should continue to practice during this time within their own scope of practice and usual business models – it is not designed to support a complete change of existing service delivery models.

It is important to determine which clients are suitable for telehealth based on available resources, technology and the urgency of medical care. Consideration of the client's capacity to participate must be made before offering the service. For example, a video consultation may be inappropriate for clients with visual or hearing impairments. Additionally, where appropriate, services should be provided according to usual referral lines. Where necessary, the client 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 client-end support.
- Quality – quality of the technology at the remote site will play a significant role in the information gained during the clinical consultation.
- Safety – can the service be provided safely

It would be generally expected that in providing telehealth consultations, the practitioner has knowledge of the region and an ongoing rapport with the healthcare providers in that region. It is appropriate to continue to provide services to interstate clients where this relationship already exists, but services would not be provided across state boundaries except where there has been a tradition of referral from neighbouring interstate towns

Trust must be maintained

In healthcare, trust is significant for both intrinsic and instrumental reasons. Physiotherapy is a trusted profession and 'brand' in Australia. Both the content of our digitally-supported physiotherapy and the process in which it is provided (e.g. data security) must be worthy of the trust of our clients. Clients must be confident that we adhere to the same strict data security and privacy protocols that we follow in non-digital practice when gathering, storing and sharing their data.

We must continue to adhere to ethical principles – to cause no harm, to act fairly and to use healthcare resources wisely. To discharge these obligations we need to consider how to ensure equity in the digital environment.

Safety, quality and effective care are still the focus

Physiotherapists and the organisations in which they work need to maintain their focus on ensuring the safety of clients and the people who care for them by focusing on providing high quality, high value care. Attention needs to be paid to the particular risks that accompany the use of digital technologies, in just the same way that physiotherapists and organisations would pay attention to the risks that attend hydrotherapy or manipulation. Sound data security and privacy standards are crucial.

Adhering to the ethical principle of *cause no harm* means that physiotherapists need to consider how to take a 'system approach' to safety[2] and actively consider the ways in which their environment can support safe, high quality practice.

This includes maintaining the same standards of professional image:

- a quiet consulting room that is fit-for-purpose (e.g. where the increased 'noise' routinely associated with consultations that link clients and physiotherapists through information and communications technologies will not be overheard by others or disturb others)
- plain décor that will not distract from visual images on the screen
- good lighting where high intensity light behind the physiotherapist involved in a video-consultation is avoided
- ready access to clinical equipment that may be needed during a video consultation
- appropriate clinical attire as would be worn in a normal clinical setting.

03 Getting started

To help physiotherapists conduct safe, high quality consultations supported by information and communications technologies, we suggest re-visiting the approach taken for in-clinic consultations.

As there are some differences in the activities involved, it can be helpful to explore how to:

- inform clients about video consultations
- ensure clients are safe during the consultation
- ensure that there is a match between the clinical needs of the client and the use of video consultations
- ensure that the care is effective
- account for the preferences of the client with respect to video consultations.

To do this, it can be useful to consider:

- what occurs prior to the video consultation
- what occurs at the time of the video consultation, and
- what occurs after the interaction. [3]

It is also useful to review ethical issues and any issues associated with the technology which will be used.

Additionally, it's valuable to determine how administrative issues (e.g. billing and claiming rebates) will occur.

Eligibility of the Practitioner - Registration issues

The Physiotherapy Board of Australia (the Board) and the Australian Health Practitioner Regulation Agency (AHPRA) would not have an opinion on the services provided, so long as the registrants adhere to the Board's Code of conduct. This includes being able to provide evidence of being qualified and competent to undertake whatever service they are providing if asked through audit or complaint.

Based on this guidance, it is expected physiotherapists providing care in Australia will be registered with the Board regardless of where the physiotherapist is located (including overseas). The aim of Australian law is to protect Australian clients. Therefore a physiotherapist who is located overseas but treating someone in Australia must be registered in Australia.

There is an expectation that a physiotherapist who conducts video consultations with a client who is outside of Australia would establish whether they are required to be registered by the physiotherapy regulator in that jurisdiction.

It is expected that physiotherapists would consider the appropriateness of a technology-supported consultation for each client's circumstances. Physiotherapists also need to comply with the requirements of the Health Practitioner Regulation National Law as in force in each state and territory (the National Law) as well as the Board's registration standards, codes and guidelines. This includes the Professional Indemnity Insurance Registration Standard which requires that a physiotherapist is covered for all aspects of their practice.

All professional indemnity insurers have their own terms and conditions. It is important that you check with your insurer before commencing that you are covered to provide telehealth. If you are a current APA member with associated our insurance, you will be covered for telehealth practice.

Physiotherapists who conduct video consultations will need to ensure their clients are informed of billing arrangements and whether the consultation will be eligible for rebates from third party insurers (e.g. Medicare or private health insurance).

Physiotherapists may wish to refer to the Fact Sheet: Who needs to be registered?
http://www.physiotherapyboard.gov.au/Codes-Guidelines/FAQ.aspx

International services are restricted by registration requirements. Australian physiotherapists whose practice extends overseas could be held to account by the Australian regulators if they did 'something wrong' overseas (e.g. consideration of whether they are a 'fit and proper person' might occur).

04 Informing and screening clients

As with all other forms of physiotherapy, the client will need to give informed consent. Before proceeding it is useful to consider the following issues:

- the client's safety
- the clinical needs of the client
- the clinical effectiveness of the proposed care
- the client's preferences
- informing the client about telehealth

It is also the physiotherapist's responsibility to ensure clients understand how the consultation will proceed.

This may include:

- providing the client with plain language information about telehealth
- informing clients of any out-of-pocket charges for telehealth consultations
- indicating the length of the telehealth consultation

Seeking client consent

Physiotherapists should be satisfied that clients have consented to participate in the telehealth consultation. The clients' consent should also be recorded in the clinical records.

In cases where the client does not have the capacity to give consent, consent should be obtained in the same way as in a face-to-face consultation. That is to say, it may be necessary to arrange for consent to be given by a family member or friend who has the requisite legal authority (e.g. enduring guardianship).

If a recording is taken, the client should be informed of this and give consent to how the recording is to be used and stored. This can be done verbally at the start of the telehealth consultation recording.

The client may be alone or may elect to have a family member or carer present during the initial consultation. At this consultation the physiotherapist should ensure they have confirmed the identity of the client. It is also recommended that the client is provided some information on the physiotherapist, such as qualifications and experience.

05 Client safety

Ensuring that assessment is valid and reliable

Physiotherapists need to consider whether a valid and reliable assessment and reappraisal of the client's condition can be undertaken.

Familiarity with the strengths and weaknesses of a video consultation is likely to influence the ability to achieve a reliable assessment.[4] Thus, it is important for physiotherapists to consider their skill in using the technology as a support for assessment activities. This may involve practicing on a friend or neighbour to familiarise yourself with techniques before trying them on a client.

Considering the risk of adverse events or deterioration in the client's condition

In considering whether or not to use video consultations, physiotherapists need to consider the likelihood of an adverse event or deterioration in their client's condition. As with at-clinic care, this involves preparatory actions such as creating contingency plans for any adverse event.

This includes a consideration of any risks inherent at the client's location during the consultation. For example, it is important to consider whether the client will be able to undertake any activities required within the consultation safely.

From a first principles viewpoint, it is useful to take the position that the client's safety needs to be comparable to the physiotherapist being physically present with the client.[5] It is important to consider prior to the consultation how these risks can be mitigated. For example, falls risks can be mitigated by ensuring a family member or carer is physically present and properly positioned during the consultation.

Considerations before undertaking telehealth

Physiotherapists need to re-consider the use of video consultations in the following circumstances:

- where there is a material risk of a rapid decline in health status
- where the client's condition is unstable, following recent trauma
- where the client has a risk of falling / imbalance and cannot be accompanied through the entire encounter by a person capable of supporting them
- where the client needs a carer or assistant and such a person will not be available for the duration of the consultation.

It may be appropriate under these conditions to either refer to medical practitioner or to reschedule the appointment for a more appropriate time.

Undertaking video consultations requires an understanding of the interactions of the technology and clinical care. Physiotherapists undertaking these consultations should be cautious about their use until they have:

- familiarity with the clinical practice area
- the ability to cope with, and simultaneously manage
- the proposed technology
- an ability to support the patient to use the technology and trouble shoot any difficulties encountered
- the fact that the client will not be co-located with them.[6]

Considering the impact of any pre-existing disability

In considering the safety of clients, a physiotherapist could usefully consider whether their client has a vision, speech or hearing impairment. These impairments may have a negative impact on the client's effective participation in a video consultation.

Where the client has a pre-existing disability, the impact of this on the client's safety needs to be considered.

These conditions do not preclude a telehealth consultation under the current conditions, but extra caution must be taken to ensure that the client is well supported and can both hear and understand instructions.

06 Client acceptance of telehealth alternatives

A wide range of factors affect client preference and willingness to consider utilising video consultations.[7 8 9 10 11 12]

These factors include:

- clinical issues such as
  - the nature of the client's condition
- access and continuity issues such as
  - whether or not they are known to the provider already
- technology issues such as
  - their past experiences with technology and their confidence in using the particular technology involved
  - their access to support to assist with navigating set up and trouble-shooting problems
  - the reliability of the technology they will be using
  - access to feedback and monitoring technologies as a part of their care
- their trust that physiotherapy via a video consultation is at least as good as the alternative
- their perception that physiotherapy treatment should include manual therapies or 'touch'
- their views about health, self-care and dependency
- their ethnicity and cultural beliefs about health care and technology, and
- their socio-economic status.

For culturally important reasons, some clients may prefer not to have their image taken or recorded.

Clinical needs of clients

The request for physiotherapy using video consultations may come in tandem with referrals from doctors (and other health professionals). The information provided about the clinical needs of clients and their context can be very helpful in understanding the clients' willingness to participate in telehealth consultations.

In order to determine if a video consultation will be safe and effective for their clients, physiotherapists may need to seek further information from referrers (including clients who self-refer).

Innovations in digital and communications technologies have created a range of options for supporting clients. Some of the technologies, like apps to support exercise programs, are designed to enhance self-management. As a result, this can support the way in which physiotherapists interact with their clients and the effectiveness of the communication.

In addition, the physiotherapist will need to determine that the video consultation is appropriate for the client's clinical condition / presenting problem and other client-related factors.

Clinical considerations may include:

- the benefit of continuity of care,
- the likelihood of a rapid decline in health status.

Thus, physiotherapists need to continue to refer to the best available evidence and clinical guidelines.

Appendix A contains a summary of the current evidence base that has been developed specifically for the COVID-19 emergency response.

Reducing delays in receiving care

Studies on rehabilitation have demonstrated that quick management of an injury or disease is critical to achieve satisfactory results in terms of increasing a client's self-efficacy. Thus, a rehabilitation program should begin as soon as possible. In most cases, the initial stages of rehabilitation, after the occurrence of a disease or injury, can be performed by clients at home even if they need accurate and intensive treatment. Because video consultations in physiotherapy can facilitate this it can play an important role in improving the clinical effectiveness of rehabilitation.[13]

Where a video consultation can reduce a delay in a client receiving care, its use needs to be considered as essential in managing outcomes.

Addressing cultural, family and work-related issues for clients

Physiotherapists will need, as always, to be mindful of cultural beliefs about health care. In addition, they will need to be mindful of sensitivities about personal images and the recording of personal images; and cultural beliefs about technology and its role in people's lives and wellbeing.

Issues pertaining family, and particularly, the likelihood that family members will want to be involved in physiotherapy video consultations and that the client and family will benefit from this involvement, are discussed later in this guidance.

Using supporting applications

The sorts of interactions that are involved include:

- telephone-based health coaching
- use of 'apps' to structure exercise programs and report on progress
- video clips of exercise demonstrations
- telemonitoring (e.g. home-based collection of data on vital signs or function)
- eVisits (which are asynchronous, email-like communications through a portal – often one facilitated by the client's electronic health record)

While we acknowledge that rapid mobilisation may not provide time to prepare for the following activities, we strongly recommend that all providers keep these in mind during the implementation phase of their practice with a view to continuous improvement as time progresses.

For example:

- reviewing the published research and commentary on models of care
- exploring the preference of clients for the models (including the mix of 'ingredients')
- monitoring the clinical effectiveness of the models they adopt
- tracking the cost of providing the 'episode of care' rather than individual occasions of service.

07 Preparing for the consultation

Physiotherapists (and their workplaces) should put in place a number of simple safeguards in the rundown to consultations to ensure that consultations are safe and effective.

If video consultations are new to some physiotherapists in the practice it is important to ensure they are well prepared for their first encounter.

It is useful to:

- make conscious the sorts of safeguards that need to occur when preparing for a consultation with a client
- ensure that they are adapted (if needed) for the video consultations, and
- test them prior to video consultations.
- Email any resources to the client that may be needed during the consultation, particularly information that may assist in setting up their environment prior to the consultation
- Set up a quick test call prior to the actual consultation

Carers and family members

The available evidence suggests that caregivers are satisfied and comfortable with interventions delivered by telehealth.[14]

As a result, it is likely that caregivers will want to participate in video consultations; and it is possible that their participation will benefit both the client and the caregiver.

Thus, physiotherapists may want to be more explicit in checking in advance whether a third party will be present at the client's end (or joined in, with the client's consent). This principle also applies to third-parties who may be members of the care team (like other allied health professionals). It is essential that the client provides consent to their involvement prior to the consultation.

Data collection

It will be useful to overtly consider the activities that will be needed to collect baseline data (e.g. objective assessments) and outcomes data (e.g. outcome measures).

It will be useful for physiotherapists to consider the ways in which they would collect data during an assessment (especially objective data, like range of movement); and then to consider the ways in which this can be reliably and validly done using video. These facilities are currently available in software programs, such as Coviu, that are purpose designed for physiotherapy video consultations.

As a physiotherapist prepares for their client's visit, it may be useful to consider the ways in which they would collect outcomes data before (presuming their client has begun an episode of care), during and after the consultation.

A physiotherapist could also turn their mind to the collection of data about the client's experience following the consultation. Where practitioners are familiar with the collection of Patient Reported Outcome Measures (PROMs) and Patient Reported Experience Measures (PREMs), we recommend

they are incorporated into practice as standard care from as early as possible. This will assist in providing further evidence of benefit.

This is now a rapidly emerging field and it is likely to be useful for physiotherapists to engage with their experienced peers where available. This will enable physiotherapists to benefit from and contribute to the growing expertise in video consultations.

Risks and hazards

The identification of risks and hazards that may have a negative impact on the safety of clients (or team members) and the introduction of safeguards to prevent harm and ensure quality is common in physiotherapy.

Some safeguards that should be used include:

- Both the client and physiotherapist ensure their location is:
  - Private, and
  - Free from hazards.
- Both the client and physiotherapist will need to:
  - Test the communications technology and ensure it is working
  - Test any clinical equipment to be used to ensure it is safe and operating.
- Both the client and the physiotherapist will need to:
  - Orient themselves to the activity ahead
  - Check that any other participants are ready and online.
- Mobile phone numbers should be available and phones turned on so that alternative communication is available in case of technical failure or delay.
- The address of the patient for the consultation should be known so that assistance can be sent for any deterioration in the patients conditions, for example, an ambulance can be called if there is an emergency.

As a result, physiotherapists and their clinics may want to have some checklists or other aids (e.g. client information sheets). The APA has a number of checklists on the website that may be helpful.

08 Undertaking the consultation

Introductions and identity confirmation

In a clinic-based consultation, it is common for the client and team to introduce themselves and for there to be a number of simple checks of the identity of the client (e.g. the client identifying themselves to the receptionist when they arrive and the physiotherapist introducing themselves to the client).

Thus, it is useful to have a similar process through which the client can confirm their identity at the beginning of video consultations.

It is likely that the following actions will need to occur:

- The physiotherapist will introduce themselves
- The client will introduce themselves and any people who are collocated with them
- Any third parties who are online but not collocated with the client or physiotherapist (e.g. members of the client's family or members of the treating team) will introduce themselves.

Informed consent

In addition to confirming that the parties are happy to proceed with all individuals who have been introduced, it will be important (as it is with in-clinic consultations) to confirm that all parties are aware that:
- the session is private
- the technology is secure
- the session will NOT be recorded without the client's explicit and informed consent
- billing/claiming arrangements for the costs of the consultation are transparent and agreed.

There are some occasions (e.g. a tremor, gait abnormality, unusual movement or range of movement) where it may be valuable to make a recording – in this case a video recording – of a part of the consultation. In these cases, it is essential to get informed consent. It is useful, when doing this, for the client to indicate that consent as a part of the video.

Closing the consultation

It may be useful to finish the consultation with:

- A summary of what happened
- agree on the next steps / plan with the client
- ask the client to repeat back the plan
- plan the next appointment and schedule the booking
- ask the client for any feedback on the session.

09 Following the consultation

After the consultation is complete, it will be important to:

- Write the record of the consultation into the client's clinical notes (including outcomes)
- Record any technical malfunctions
- Implement and monitor agreed follow-up actions
  - With the client
  - With other professionals involved in the care team.

Physiotherapists and their practices have an obligation to continue to improve the safety and quality of care provided to clients. Some digital technologies allow for feedback from clients and other participating parties to be easily obtained through on-line surveys.

Physiotherapists need to consider which mechanisms will best provide information on safety and quality, and on opportunities to improve a video consultation service. Physiotherapists need to participate actively in the improvement strategies.

10 Ethical issues

Awareness of ethical standards

Physiotherapists need to be familiar with, and adhere to, their Code of Conduct:
https://australian.physio/sites/default/files/ABOUT-US/Governance/APA_Code_of_Conduct.pdf

Physiotherapists also need to be familiar with, and adhere to, the Physiotherapy Board of Australia's Code of Conduct for registered health practitioners:
http://www.physiotherapyboard.gov.au/Codes-Guidelines/Code-of-conduct.aspx

It is also important that in advertising telehealth services, physiotherapists meet the standards outlined in the Australian Health Practitioners Regulation Agency *Guidelines for advertising regulated health services*: https://www.ahpra.gov.au/Publications/Advertising-resources/Legislation-guidelines/Advertising-guidelines.aspx

Privacy

As with all other modes of service, when physiotherapists engage in physiotherapy using video consultations, they need to adhere to their ethical duty to safeguard the personal information of their clients.

Physiotherapists need to adhere to the National Privacy Principles.
https://www.oaic.gov.au/privacy-law/privacy-archive/privacy-resources-archive/national-privacy-principles

To adhere to their ethical and legal obligations, the sorts of factors that physiotherapists need to consider include:

- the environment (e.g. the space that both the client and physiotherapist use for the interaction is private)
- the channel of communication (e.g. steps are taken to ensure that the information cannot be 'hacked' as it is transferred to and from the client). We recommend using a platform that is end-to-end encrypted.
- the identity of the client and those involved in their care (e.g. that identity is confirmed when contact is occurring)
- data and information retention and destruction (e.g. retention and destruction of clinical notes or digital images)
- the staff team (e.g. that each member is skilled in maintaining the security and privacy of client information)
- the site's policies and procedures (e.g. that they are updated to reflect new policies and procedures concerning information and communications technology and its use).

Where to provide video consultations

Even under current conditions, it is preferable for physiotherapists to maintain usual referrals processes. It is preferable for physiotherapists with advanced skills to support local physiotherapists, rather than be a substitute for them, unless this is mutually agreed and the impact on continuity of care for the client has been considered.

We should try where possible to maintain the same principles that we would in an environment that was not impacted by COVID-19. It would be generally expected that in providing video consultations, the physiotherapist will have an ongoing relationship with the client, other members of the client's care team and with the healthcare providers in that region. Where the client's current physiotherapist is not offering telehealth services then it is reasonable to take on new clients.

11 Technical issues

Ensuring access to fit-for-purpose, reliable and secure technical systems

There are many simple to use, affordable, consumer friendly platforms available that operate well with existing commonly used technology such as smart phones. The webinars currently available on our website that provide guidance on the process of choosing equipment and platforms. In addition there is a list of the most common current providers on the APA COVID-19 website telehealth tile.

The information and communications technology used for telehealth should be fit for the clinical purpose of the consultation. When considering what technology to use the following principles apply.

Specifically:

- the technology is reliable and works well over the locally available network and bandwidth
- the requirements are consumer friendly and readily available e.g. smart phones and laptops
- Any software download must be as straight forward as possible
- the technology is compatible with the technology used by the client and health worker
- the technology used is secure, and privacy and confidentiality during the consultation can be ensured
- the technology is of a high enough quality to facilitate good communication between all participants and accurate transfer of clinical information

The technical systems need to support safe, effective video consultations and need to be fit-for-purpose, reliable and secure.

Given that video consultations may open the opportunity for service to be provided when a physiotherapist is outside a clinic, these technical systems need to operate wherever the physiotherapist is when the consultation occurs.

Using communications equipment

Consideration should be given to microphones which enable all participants in the video consultation to be clearly audible (e.g. remote ceiling microphones or cabled/wireless extension microphones).

Physiotherapists need to be able to adjust any communications equipment as needed within their consultation.

Testing and maintaining technical equipment

Consideration should be given to:

- pre-testing the camera ahead of a video consultation session to ensure correct camera gaze angle so that eye-to-eye contact will be achieved
- pre-testing, microphones ahead of a video consultation session to ensure all participants will be clearly audible.

Physiotherapists need to be able to undertake this test or have confidence that it is being done reliably on their behalf.

Ensuring operability

Physiotherapists need to have a mechanism to have a pre-consultation test of the interoperability of their technology with:

- clients
- other client-supporters who may be in third locations and
- other members of the treating team and professionals such as interpreters.

Physiotherapists need to be able to undertake this test or have confidence that it is being done reliably on their behalf.

Managing technical contingencies

Physiotherapists need to know and be able to enact contingency plans for managing failures during their interactions with clients.

These need to be in a practice manual or similar tool. Until physiotherapists are familiar with them, they may need to re-read them prior to consultations.

Some examples of actions include:

- turning off the camera for a period of time and using audio only if the activity permits
- reducing the number of other people using the same internet connection
- demonstrating how to use the chat function
- rescheduling to a time that the network is less busy

Using clinical equipment

As part of the preparation for a video consultation, physiotherapists need to ensure that any clinical equipment likely to be needed during a video consultation is readily accessible.

Ideally, as part of the booking process the equipment will have been identified and confirmation of access to it will have occurred.

Cameras

For the practitioner, consider using an external HD webcam for videoconferencing as this sort of hardware can offer better resolution and quality than some older built in cameras.

Web cameras built into laptops and screens have significantly improved in quality and may be sufficient during this period if a high quality camera is not readily available. However, a HD webcam will produce sharp and accurate wide screen high resolution video which will create a professional image.

When selecting a webcam, consider how many people need to be in view. Often it may be a single person, but at other times two or three people may need to be in view. It is important that people don't need to sit uncomfortably close, or a long way back from the camera as the microphone may have difficulty in clearly picking up voices.

Clients should be advised to use the best quality camera that they have readily available and, ideally, that they are familiar with using. They do not need to purchase any equipment.

Microphones

Poor audio makes a telehealth session almost unusable.

A headset used by the physiotherapist will generally produce the best quality audio. The distance between the microphone and the user's mouth is always the same even if they turn their heads or look away. The microphone is designed to eliminate background noise. Headsets also reduce feedback and eliminate echo. It is not necessary for the client to use a headset.

Depending on the nature of your consultation, you may find it useful to consider using a headset.

Ensure sound clinical governance

The provision of video consultations needs to be incorporated within the clinical governance framework of the business.

The intersection of safety for clients and video consultations involves three overlapping domains:[15]

- *Safety as a design requirement* – addressing safety concerns that are unique and specific to technology (i.e. making the hardware and software safe and free from malfunctions) – managing risks arising from the systems themselves
- *Safe use of technologies* – ensuring safe and appropriate use of technology by clinicians, staff and clients, as well as identifying and mitigating unsafe changes in workflows that emerge due to technology use – managing risks arising from the implementation and use of the systems
- *Using technologies to improve safety* – using technology to identify and monitor near misses, adverse events, risks and hazards and to intervene before actual harm occurs.

In this context, it is useful to consider who will assume the responsibilities of being:

- clinical lead
- technology lead, and
- business lead.

This will assist to ensure that there are sound structures and processes for:

- delivering and improving value to consumers
- identifying and addressing clinical risks
- monitoring and evaluating clinical performance, and
- ensuring ongoing professional development.

Built environment

It is useful to consider whether the program needs:

- a quiet consulting room that is fit-for-purpose (e.g. where the increased 'noise' routinely associated with consultations that link clients and physiotherapists through information and communications technologies will not be overheard by others or disturb others)
- plain décor that will not distract from visual images on the screen
- good lighting where high intensity light behind the physiotherapist involved in a video-consultation is avoided
- ready access to clinical equipment that may be needed during a video consultation.

12 Billing and claiming

Physiotherapists will need to understand the mechanisms used by their practice to facilitate billing and claiming and the rules of any third-party insurers about the scope of services that are subsidized.

There are a number of platforms available that simplify the process. Instructions are currently available on the APA COVID-19 website telehealth tile.

Advice on claiming process where there is third party funding available is also on the APA COVID-19 website telehealth tile.

Scheduling services

Physiotherapists and their businesses will need a system for coordinating and booking the people, equipment and space needed for physiotherapy that is supported by information and communications technologies. There are online platforms that support this process – this information is available in our the APA COVID-19 website telehealth tile

The equipment that underpins the physiotherapy consultation needs to be accessible at the time services are to be undertaken to ensure continuity of care. The use of a dedicated room (if possible) may help ensure the optimal room set-up and minimise interruptions to the consultation.

Practitioner Support

Given the additional pressure that is on physiotherapists to change their normal model of practice, it may be useful to consider providing a dedicated time slot each week for practitioners to debrief and share their experiences and learnings.

It may be useful to have a practical component that complements this and gives the physiotherapist the opportunity to:

- engage in hands-on activities with video consultations
- determine service adaptations required for the online environment
- experience the delivery of health services via telehealth from the perspective of the clinician and the client during role-playing activities
- have opportunities to observe telehealth in action.
- discuss and trouble shoot technical issues

13 Understanding client experiences

After their first physiotherapy video consultation, it is useful to ask the client for an evaluation of the experience. If the client is planning on making long-term use of services facilitated by information and communications technologies, this evaluation should be repeated at regular intervals or, if warranted, by a change in the client's condition.

It can help for parts of the evaluation process to be conducted by somebody who was not present during the consultation – as a sort of 'sounding board'.

The timing and structure of evaluations should be determined by physiotherapist, based on the use and purpose of the consultation.

Some questions to ask clients include:

- Were you able to clearly see and hear the physiotherapist throughout the consultation?
- Were there any drop-outs in the connection, blurriness of the image, or muffled sound at your end?
- Did you receive the care and information you required?
- Would you be willing to have another consultation using the same technologies in the future? If not, what could be done to improve the service?

Appendix A: Clinical effectiveness

The evidence-base for the effectiveness (and ineffectiveness) of video consultations is rapidly expanding.[16] The absence of evidence, in itself, should not preclude the use of video consultations. Where evidence is not available, physiotherapists need to use a rigorous first-principles approach to considering clinical effectiveness, and they need to work with clients and colleagues to monitor and evaluate the effectiveness of any model they initiate.

Areas where there substantiated strong evidence, including systematic reviews with meta- analysis at RCT level include:

Evidence base for Telehealth	Physiotherapy delivered via telehealth is a safe, effective solution. Telehealth safety and efficacy has been demonstrated clearly across a wide range of clinical areas including cardiac rehabilitation, neurological rehabilitation (brain injury, multiple sclerosis, traumatic brain injury), persistent pain, COPD, hip and knee arthroplasty, tendinopathy, pelvic floor muscle training.
	Appendix 1 summarises the research evidence. It is focussed on systematic reviews and clinical trials for evidence of effectiveness focussed on musculoskeletal conditions, and qualitative studies for evidence regarding client experience.
	The evidence shows: - A wide variety of telehealth methods have been evaluated, including simple technological set-ups that require no additional hardware for the client or physiotherapist (e.g. telephone calls or videoconferencing) to more complex set-ups with remote monitoring that require specialist equipment. - It is not feasible in the current situation to expect clients to obtain hardware other than what is readily available to them already. These include smart phones, lap-tops, tablets or desk top computers. Thus, telephone calls and video-conferencing (using freely available or paid software downloaded from the internet) are the most feasible options for delivering telehealth quickly to clients at this time. - Clients have positive attitudes towards, and experiences with, physiotherapist delivered telehealth using telephone-delivered care and video-conferencing. Convenience, flexibility, empowerment to self-manage, positive therapeutic relationships, satisfaction with care and treatment benefits were emphasised by clients. This includes clients who are elderly as well as those recovering from surgical procedures.

- Telephone and/or video-conferencing can be supplemented by the use of websites and/or apps to prescribe and deliver exercises (with video clips), and allow the client to monitor and record exercise activity, that may be shared with the physiotherapist remotely. Importantly, these have been shown to be more effective at increasing exercise adherence compared to usual clinical practice by physios not using these apps.

- Telehealth may be used exclusively as a mode of service delivery or complementary to existing in-person services.

- There is strong evidence that telehealth is effective for musculoskeletal conditions and in post-surgical rehabilitation, particularly for the following conditions:
    - Osteoarthritis & other chronic joint pain conditions
    - Rehabilitation following joint replacement surgery
    - Clients requiring cardiac rehabilitation
    - Clients requiring pulmonary rehabilitation

* The evidence is less compelling for managing spinal pain/post-spinal surgery.

- Telehealth is well-suited to conditions where the focus of physiotherapy treatment is:
    - Education about the condition
    - Advice for self-management
    - Prescribed therapeutic exercise
    - Broader physical activity advice & individualised planning
    - Follow-up and monitoring of progress, including for clients that may have been seen previously in-person

- Telehealth is not suited for conditions where the physiotherapist judges that the focus of their treatment is manual therapy or other hands-on treatments.

- For clients with musculoskeletal conditions and post-arthroplasty, telehealth produces clinical outcomes that are similar to usual care or control conditions.

- Clients with musculoskeletal problems can be assessed safely and appropriately using video-conferencing by physiotherapists.

- Research suggests that rehabilitation for people with chronic conditions is optimized when it is conducted in the home. Skills taught during rehabilitation are more likely to be retained and

<table>
<tr><td></td><td>transferred to everyday activities if taught in the environment in which they will be used. Clients are more likely to adhere to exercises that are tailored to their home environment.

• For clinicians considering the inclusion of telehealth in their practice, there are numerous resources that can be consulted to implement a robust and sustainable service.</td></tr>
</table>

In addition, the clinical arenas in which the role of video consultations have been studied include:
- cancer[17]
- cardiac conditions, including cardiac rehabilitation and congestive heart failure[18][19][20][21][22][23][24]
- 'chronic disease'[25][26][27]
- musculoskeletal conditions[28][29]
- neurological problems including brain injury and stroke[30][31][32][33] multiple sclerosis[34] Parkinson's' disease[35]
- post-surgical rehabilitation[36][37][38][39][40][41][42][43]
- osteoarthritis[44][45]
- pain management[46][47][48][49][50]
- pelvic conditions[51][52]
- 'physical therapy'[53]
- respiratory conditions[54], including congestive obstructive pulmonary disease[55][56][57][58][59][60] and cystic fibrosis.[61]

Appendix B: Sample Telehealth setup and troubleshooting for clients

Requirements

You will need:

- A reliable internet connection.
- Please complete a test call to check whether your internet speed is sufficient for a telehealth consultation.
- A computer, tablet or smart phone or:
- A web camera, speakers, and microphone or a laptop with these built in.

When you start the video call, you may be guided through a few steps to test your equipment. This will check whether your Internet connection is fast enough, your speakers and microphone are working correctly, and your camera is positioned correctly. Please refer to this trouble shooting reference if you have any problems.

Internet data usage

You don't use any data while waiting for your physiotherapist to join you.

A telehealth consultation uses less than half of the data you would use while watching a YouTube video in High Definition. That's about 230 MB on a mobile device, and 450 MB on a PC for a 20 minute call, which is similar to Skype or FaceTime.

Data use is less on lower-speed internet connections, or if you're using a less powerful computer, tablet, or smartphone. These factors can also reduce the overall quality of the video call. Data use increases when there are more than two participants in the video call.

Appendix C: Glossary

Acceptability
The quality of being worth accepting, pleasing, tolerable. In health service delivery, this term relates to the degree to which a service meets or exceeds the expectations of informed customers and consumers. Encompasses the issue of cultural appropriateness.

Access to health care
Relates to the ability to obtain health services when needed. This includes:

- availability – an issue of particular relevance to the isolated rural population, and the inner city, chronically ill, poor and disadvantaged (relates to adequacy of supply of existing services, facilities, and specialised programs and services)
- accessibility – refers to the location of supply in relation to the location of the clients, and takes into account issues of transportation, travel time, distance, and cost
- accommodation – refers to the organisational and administrative arrangements and clients' ability to accommodate to these factors, and their perception of their appropriateness
- acceptability – incorporates cultural and/or social issues; and·
- relative affordability.

Additional health information
Any additional health information that may be required for a video consultation, such as store and forward images, online radiology or other diagnostic results, or a personally controlled electronic health record.

Asynchronous communication
An action that takes place in different time frames according to users' convenience (e.g. email).

Bandwidth
A measure of the capacity of an electronic transmission medium (i.e. a communications channel) to transmit data per unit of time – the higher the bandwidth, the more data/information can be transmitted.

Bridging
In telemedicine, the process of establishing a video/audio/data link between three or more sites. Requires a multipoint control unit (MCU) or "data bridge".

Broadband
Telecommunication that provides multiple channels of data over a single communications medium using frequency multiplexing- the term can refer more generically to a higher bandwidth that will support real-time, full motion audio and videoconferencing.

Carer
Carers are individuals who provide unpaid, informal care and support to a family member or friend who has a disability, mental health condition, drug or alcohol dependency, chronic condition, terminal illness or who is frail.

Client

A person or organisation who seeks the services of another group, organisation or adviser. In health care, a client is the user of the services provided by health professionals. The term "client" is more often used in hospitals and medical practices.

In computer terminology, a client is a computer connected to a network that does not store all the data or software it uses, but retrieves it across a network from another computer that acts as a server.

Client-end

The endpoint of a video consultation where the client is present.

Client identifier

Person identifier unique within establishment or agency.

Clinical handover

The transfer of professional responsibility and accountability for some or all aspects of care for a client, or group of clients, to another person or professional group on a temporary or permanent basis (e.g. a physiotherapist handing over care to a colleague within the same practice team or a physiotherapist handing over care to a physiotherapist in another town).

Connectivity

The ability of systems to interact, among the various operating systems on local, regional, national, and ultimately, international scales.3

Consultant/ Consulted clinician

The health care provider whose expertise is requested via a physical referral or electronic referral (doctor, nurse, allied health professional and Aboriginal and Torres Strait Islander Health Worker).

Desktop videoconference

The ability to have meetings, using high definition face to face communications from a personal workstation.

Electronic Health Record (EHR)

A collection of personal health information concerning a single individual, entered or accepted by health care providers, and stored electronically. The information is organised primarily to support continuing, efficient and quality health care and is stored and transmitted securely.

Electronic Medical Record (eMR)

The eMR is a single database where client details are entered once and then become accessible to all treating clinicians, with authorised access, anywhere in the hospital. Information gathered about the client from many hospital service departments can guide clinical decisions through rules and alerts brought to the attention of clinicians.

Encryption

The process of converting plain text characters into cipher text (i.e. meaningless data) as a means of protecting the contents of the data and guaranteeing its authenticity. Encryption is a security feature that assures that only the parties who are supposed to be participating in a video conference or data transfer are able to do so. See Firewall

Firewall
A hardware or software based system that filters network traffic based on a set of rules. Simple firewalls normally block access to specific ports.

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

Interoperability
The ability of separate video conference systems to operate effectively together to provide audio and visual quality fit for clinical purposes.

Integrated Services Digital Network (ISDN)
Technology that uses digital telephone lines instead of analogue lines to connect to other videoconferencing units.

Internet Protocol (IP)
IP is the basic language when referring to connection of technical systems (i.e. videoconferencing units) using the internet.

Latency
The delay/length of time it takes a packet to move from source to destination. The delay before a transfer of data begins following an instruction for its transfer.

Local Site
In the context of telecommunication, the site that is geographically connected to the remote site.

Local Area Network (LAN)
LAN is a computer network linking computers, printers, servers and other equipment within an enterprise, which can also support audio, video and data exchange.

Multipoint Control Unit (MCU) otherwise known as Bridge
A device that enables participants at three or more sites to participate in a video/audio/data Conference.

My Health Record
My Health Record is the name of the national digital health record system. It is a secure online summary of a person's health information. Having a My Health Record means important health information about a client, like allergies, medical conditions and treatments, medicine details, test or scan reports, can be accessed through one system. Healthcare providers like doctors, specialists and hospital staff can see it online from anywhere at any time when they need to, like in an accident or emergency. The person can control what goes into it, and who is allowed to access it. The person can choose to share their health information with their doctors, hospitals and other healthcare providers.

Peripheral devices
Peripheral Devices are attachments to the platform used to provide digitally-supported physiotherapy that augment communications and/or medical capability by capturing images, anatomic sounds or other physiological parameters, including items such as electronic stethoscopes, ophthalmoscopes, video cameras and scanners.

Point to point videoconferencing
Direct communication between two systems via a communications link.

Privacy of health information
The protection of health information to prevent unauthorised access, use and dissemination.

Provider end otherwise known as hub site/ clinical end
The clinician whose expertise is requested via a physical referral or telemedicine referral.

Real time
Communication that occurs right away, without any perceptible delay. Very important in videoconferencing, as too much delay will make the system very unusable.

Real-time (synchronous) video consultation
A consultation where the client and physiotherapist are simultaneously present during the consultation and have synchronous audio-visual communication.

Receiver end / client end
Site at which the primary assessment, examination or activity is conducted and from which a referral is made to another practitioner.

Referring Practitioner
Healthcare provider who initiates a physical referral or telemedicine referral following a primary examination.

Remote monitoring
The monitoring of clients outside of conventional clinical settings (e.g. in the home) which may increase access to care for clients and decrease healthcare delivery costs.

Resolution
Number of pixels per unit of area. The more pixels the higher the resolution and detail of an image.

Rural or Remote site
In the context of telecommunications, any site that is geographically separated from the local site.

Security of health information
The protection of the confidentiality, integrity and availability of health information

Software
Programs and applications that allow a computer to perform certain tasks, including word processing, email and video-conferencing.

Technical systems
The video conference equipment and connectivity required to deliver audio and visual quality fit for clinical purposes.

Teleconferencing
Interactive electronic communication between two or more people at two or more sites, which make use of voice transmission systems.

Telehealth

Telehealth is the delivery of health care at a distance using information and communications technology.

Telehealth activity

Any health-related activity that is conducted at a distance between two or more locations using technology-assisted communications. Telehealth activities can be classified, but not limited by, the following:

- client care services (e.g. consulting or diagnostics see also telehealth services)
- education and training (e.g. mentoring, continuing medical education, distance learning)
- management and administration;
- research and evaluation;
- consumer and community use;
- health promotion; and
- public health.

Telehealth care

'Healthcare at a distance', which involves the electronic transmission of health information and/or images in the delivery of clinical services utilising a range of telecommunication technologies.

Telehealth technologies otherwise known as Telehealth modalities

Health information can be communicated through a number of different mechanisms. In telehealth, videoconference, image transfer and data transfer are the three main formats utilised. The technology employed to support these formats include:

- audio-conference equipment;
- video-conference equipment
- computer networking (including LANs and WANs);
- audiographics;
  - interactive (computer-based) multimedia (IMM);
- the internet
- interactive satellite television (ITV); and
- broadband networks.

Telemedicine

The use of information and communication technologies, specifically to provide, support and improve access to quality clinical health care.

Unsupported consultation

A telehealth consultation where a health worker provides in-person support to the client while they speak to the specialist via video-conference.

Videoconferencing

Connection of two or more people or locations via video camera and monitors, allowing all parties to speak to each other, see each other and in some cases exchange data simultaneously.

Video consultation etiquette

The professional behaviour that supports client safety and quality care, and quality visual and audio performance during a video consultation.

Video recording

A recording of a video consultation that respects the recognised principle of only collecting health information that is necessary (e.g. still or moving images recorded during a video consultation for clinical purposes) and that must be managed within a health record with the same level of security, privacy and confidentiality as any other client health information.

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