

Undertaking medication review by telehealth

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Background

Medication review can be delivered using telehealth during the COVID-19 pandemic to ensure ongoing provision of care to vulnerable patient populations and to minimise risk of infection for both patients and health professionals.

Objective

The aim of this article is to discuss the evidence related to telehealth medication reviews and provide practical considerations for conducting successful medication reviews by telehealth.

Discussion

Leading up to the COVID-19 pandemic, telehealth technologies had been increasingly used to deliver medication review services, mainly to patients in rural and remote areas, and were accepted by patients. Available evidence suggests telehealth medication reviews may positively affect clinical and cost outcomes, but there are ongoing challenges. When delivering these services, appropriate preparation – using support people, maintaining patients' privacy, selecting the most suitable technology on the basis of individual circumstances and ensuring good communication between healthcare professionals involved in medication review cycle of care – can help produce best results for patients.

MEDICATION-RELATED PROBLEMS are common in older people as a result of factors such as multimorbidity, polypharmacy and age-related physiological changes.¹ Reduced contact with general practitioners (GPs), pharmacists and informal carers during the current COVID-19 pandemic may put vulnerable older people who are self-isolating at higher risk of harm associated with suboptimal medication use.

Telehealth, which is the delivery of health services over a distance using information and communication technology,² has gained increased popularity in the global response to slow the transmission of SARS-CoV-2. Telehealth provides a mechanism through which GPs and other primary healthcare clinicians provide care to vulnerable patient populations. This includes when either the clinician or patient is self-isolating or may be considered vulnerable because of their age or comorbidities.³

The COVID-19 pandemic has facilitated regulatory and practice change to allow for telehealth medication reviews.⁴ In this article, the authors discuss the evidence regarding telehealth medication reviews and outline practical considerations for conducting successful medication reviews by telehealth.

Importance of continuing to provide medication reviews

Ongoing high rates of medication-related harm highlight the importance

of GPs and pharmacists continuing to provide collaborative medication reviews. Medication-related problems are associated with up to 250,000 hospital admissions each year in Australia, with half of this harm potentially preventable.⁵ The COVID-19 pandemic may affect medication adherence and treatment continuity, and result in suboptimal self-management of non-communicable diseases.⁶ Evidence supports the value of collaborative medication review services, Home Medicines Reviews (HMRs) and Residential Medication Management Reviews (RMMRs) for identifying and resolving medication-related problems.⁷⁻⁹ These services may help GPs gather information and provide patient information. HMRs and RMMRs are Medicare Benefits Schedule-funded services that can be delivered using telehealth technologies, including telephone and videoconferencing.

Documented experience with telehealth to deliver medication reviews

Positive aspects

A recent scoping review identified 29 reports of implementation or evaluation of telehealth medication reviews in outpatient, hospital and residential care settings.¹⁰ Previous telehealth medication review initiatives have mainly focused on rural and remote areas with no or limited access to traditional medication review services, and providing after-hours care.¹⁰ In Australia, for example, the Toowoomba

Hospital in Queensland implemented a system of inpatient medication reviews using telephone and videoconferencing to two rural Queensland hospitals.¹¹ Videoconferencing has been also used to deliver medication reviews from an outpatient clinic within a medium-sized rural hospital to seven remote and rural healthcare facilities in Far North Queensland.¹² Similarly, rural pharmacists have worked with community nurses to deliver medication reviews into patients' homes using videoconferencing technologies.¹³ Overall, the existing evidence suggests that medication reviews delivered via telehealth may improve clinical and cost outcomes and are well accepted by patients.¹⁰

Ongoing challenges

While the use of telehealth-enabled medication reviews has been increasing over the years,¹⁰ the current COVID-19 pandemic has accelerated the uptake. The pandemic has resulted in a sharp increase in the number of clinicians providing these services for the first time. The changes in funding rules have also supported the increased uptake and delivery of telehealth-enabled medication reviews. An awareness of the challenges and limitations will assist clinicians to maximise the benefits of telehealth medication reviews.

While the steps involved in a telehealth medication review are similar to those involved in a face-to-face review, conducting a medication review using telehealth may require more preparation by all parties. It may be necessary to devote more time to a telehealth review than a normal face-to-face review. Selecting the appropriate equipment and location to conduct the review may help with conducting a successful telehealth medication review.^{14,15} Providing patients with background information about the structure of the telehealth medication review consultation may increase acceptance of the value of the service. Professional associations, regulatory bodies and universities have created resources to assist healthcare professionals conducting consultations, including medication reviews, via

telehealth. Some of these resources are listed in Table 1.

The role of support people in telehealth medication reviews

The success of the telehealth review often depends on the involvement of support people including family members, carers, friends, Aboriginal and Torres Strait Islander Health Workers and staff at residential care settings. These people assist with providing or setting up devices, gathering clinical information and facilitating the medication review consultations. Support people may be particularly useful for conducting medication reviews for people with sensory or cognitive impairment or low information technology literacy, or for people from a different linguistic background than the provider. It is helpful to request the presence of support people during the telehealth medication review consultations, depending on the patient's preference.

Privacy

Privacy is an important issue to consider during the different stages of telehealth medication reviews. When preparing and planning for an audiovisual review, choosing the best available platform with a proper level of security helps maintain patients' privacy. Medication review consultations should not normally be recorded to ensure the privacy of both patient and provider. If clinically required,

the provider can record the consultation, but only if the patient has agreed.¹⁴ The presence of any other people, including support people, at the consultation should be agreed on by both patient and health professional. In addition, patients' privacy must be ensured when communicating the review report to medical practitioners and storing medication review records electronically.

Technology issues

Audio versus audiovisual technologies for telehealth medication reviews

Technology has a vital role in the successful delivery of medication reviews via telehealth, and considerations should be given to choosing the most suitable technology on the basis of patients' circumstances. Telehealth medication reviews can be conducted using both audio and audiovisual technologies. Choosing the type that suits the purpose of the review should take into account the availability of the technology, patients' preferences and their information technology literacy, and whether they have a support person who can assist with the review or provide the devices required. Overall, healthcare professionals can gather more information using audiovisual technologies, and some tasks, such as checking the storage arrangements and expiry dates of medications, are easier. Table 2 summarises which of the audio and/or audiovisual technologies are more suitable for conducting some

Table 1. Information resources for telehealth and telehealth consultations

Organisation	Resource
The Royal Australian College of General Practitioners	Resources about telehealth consultations during the COVID-19 pandemic, www.racgp.org.au/clinical-resources/covid-19-resources/telehealth
The Pharmaceutical Society of Australia, in partnership with the Department of Health	Resources for pharmacists providing and patients receiving telehealth medication reviews, www.psa.org.au/coronavirus
The Australian Health Practitioner Regulation Agency	Telehealth guidance for practitioners, www.ahpra.gov.au/News/COVID-19/Workforce-resources/Telehealth-guidance-for-practitioners.aspx
The University of Queensland Centre for Online Health	Quick guides for healthcare professionals and consumers about telehealth, https://coh.centre.uq.edu.au/quick-guides-telehealth

activities involved in medication review consultations.¹⁶

The choice of software and hardware for audiovisual telehealth medication reviews

Telehealth-enabled medication reviews can be delivered using widely available video calling applications, platforms mainly used for commercial purposes or platforms designed specifically for delivering telehealth services. There are no approved or preferred platforms for conducting audiovisual medication reviews, and health professionals should aim to choose the best available platform on the basis of individual circumstances. The ease of use for patients (eg no installations or account set up), patients' preferences (eg patients' familiarity with a specific platform) and security (eg strong encryption) are some points to consider when choosing a telehealth software for performing a medication review. Concerns have been raised that free video calling platforms might not provide the level of security required for delivering these services.¹⁷ Extra features, such as

screen sharing or document exchange, support the delivery of educational materials such as the resources listed in Box 1.

Similarly, there are no specific hardware listed as required for conducting these reviews, and a webcam, speakers, microphone and internet connection will be adequate. However, using better quality hardware can improve the quality of the audiovisual medication review service. Having a back-up communication mode, such as a telephone of which patients are aware, might be helpful in case technology fails.

Suggestions for how to proceed on the basis of the evidence to date

Figure 1 summarises the process of the medication review cycle of care with considerations for telehealth medication reviews. The process involves collaboration between different parties including patients and their supporting people, GPs, other medical practitioners, accredited pharmacists and other health professionals (Table 3). When the pharmacist has conducted the patient consultation online or via telephone, the referring GP should discuss the findings of the medication review with the

Box 1. Digital resources about appropriate use of different dosage forms

- Metered dose inhalers and other devices used for respiratory diseases (available at <https://lungfoundation.com.au/resources> and www.nationalasthma.org.au/living-with-asthma/how-to-videos)
- Adrenaline injection (available at www.allergy.org.au/hp/anaphylaxis/how-to-give-epipen)
- Subcutaneous insulin (available at www.ndss.com.au/about-diabetes/resources/find-a-resource/insulin-fact-sheet)
- Eye drops (available at www.glaucoma.org.au/articles/how-to-instil-eye-drops-article)

Table 2. The suitability of audio and/or audiovisual technologies for conducting some tasks involved in medication review consultations

Task	Audio	Audiovisual
Take a best possible medication history	✓	✓
Assess possible drug–drug, drug–food or drug–time interactions	✓	✓
Assess whether there is a current indication for each medication	✓	✓
Assess medication doses	✓	✓
Undertake patient assessment on vision, mobility, falls risk, frailty, etc		✓
Assess adherence	✓	✓
Provide medication information	✓	✓
Assess capacity to self-manage medications by being able to correctly identify the medication name, dose and administration times and be able to access each dose (eg open child-resistant container)		✓
Assess medication storage		✓
Assess medication expiry dates		✓
Provide instructions for safe disposal of medications	✓	✓
Assess and demonstrate device technique (eg metered dose inhaler)		✓
Determine possible self-reported adverse events	✓	✓

reviewing pharmacist.¹⁸ The pharmacist is still required to prepare and send a written report to the referring GP in a timely manner. The report should outline recommended patient and pharmacist follow-up as part of the recent changes to the medication management review programs.^{19,20} It should also highlight the limitations of the conducted medication review in the context of the patient, such as limitations associated with using a telephone, so that the GP could

take actions accordingly. A list of the items to include in the report can be found in Appendix 1 (available online only). A Medication Management Plan should be prepared by the referring GP in consultation with patient and communicated to the pharmacist. The Medication Management Plan should outline each problem identified during the medication review, the proposed course of action, person or persons responsible for implementing

the proposed action and anticipated outcomes. It should also document patient agreement and indicate whether follow-up consultations were recommended by the pharmacist and agreed by the medical practitioner.¹⁸ These steps are all part of the cycle of care for patients with an aim to reduce harms related to medication use. Good communication and collaboration between healthcare professionals caring for a patient, during either a telehealth or

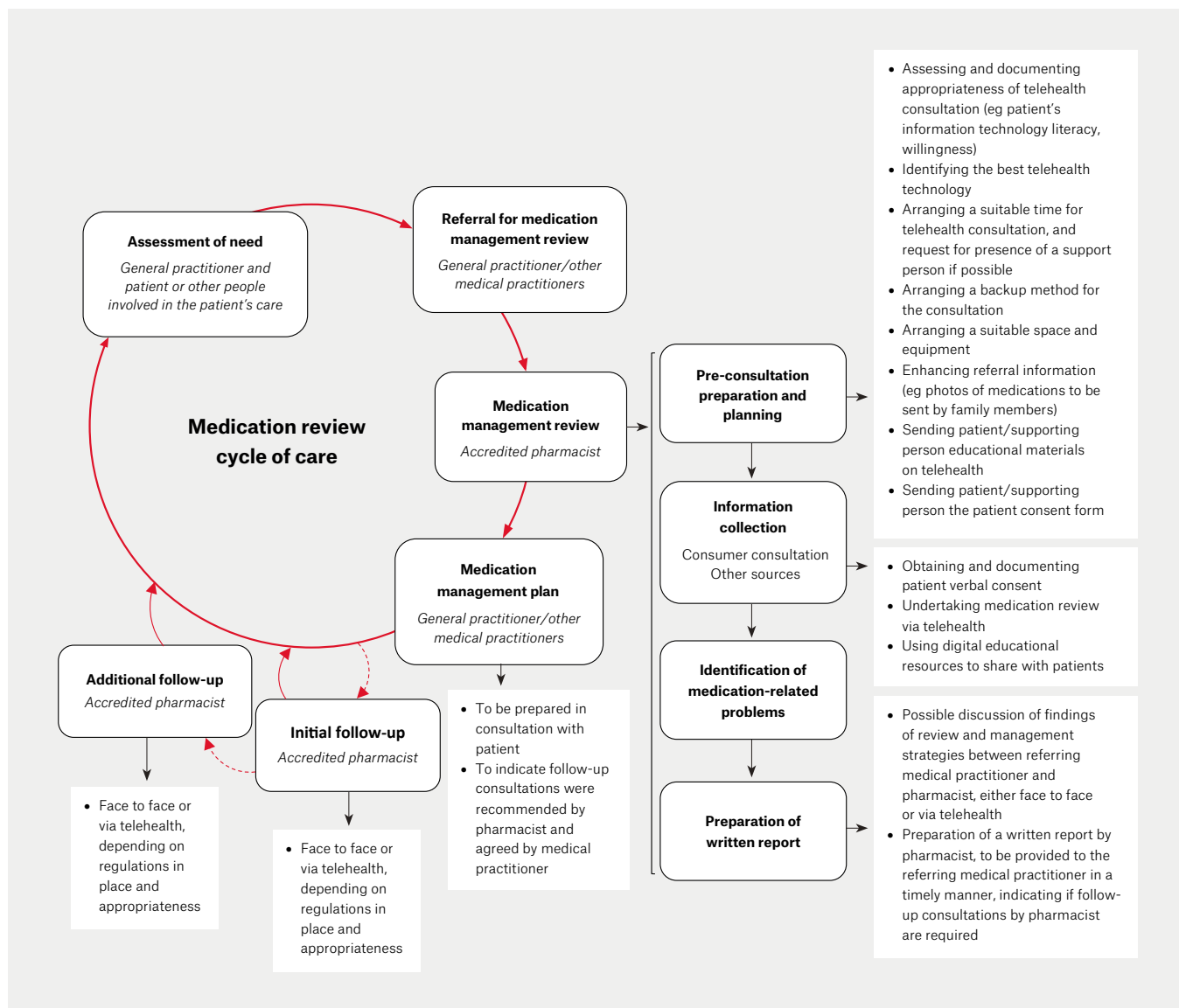


Figure 1. Medication review cycle of care with considerations for telehealth medication reviews¹⁸

Adapted with permission from Pharmaceutical Society of Australia, Guidelines for comprehensive medication management reviews, Deakin West, ACT: PSA, 2020.

face-to-face medication review process, can result in improved care for patients.

Conclusion

Telehealth can help with the delivery of safe, timely and efficient medication review services during and after the current public health crisis. This unprecedented exposure of both patients and healthcare professionals to telehealth, although as a result of an unfortunate event, might help with the integration of this smart form of service delivery into routine care, which may ultimately benefit people living in regional, rural and remote areas more than others.

Key points

- Telehealth has previously been used successfully to deliver medication review services, mainly to patients in rural and remote areas.
- Telehealth can help with the delivery of safe, timely and efficient medication review services during and potentially after the current pandemic.
- Proper preparation and planning, requesting help from support

people if appropriate, maintaining patients’ privacy, considering issues such as choosing the most suitable telehealth technology, and good communication between involved healthcare professionals can assist with conducting successful telehealth medication reviews.

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Competing interests: JSB reports grants from National Health and Medical Research Council (NHMRC) Boosting Dementia Leadership Fellowship Scheme, Dementia Australia Research Foundation, Victorian Government Department of Health and Human Services, Yulgilbar Foundation, GlaxoSmithKline and various aged care provider organisations, outside of the submitted work. CRF is the National President of the Pharmaceutical Society of Australia (PSA), the recognised peak professional body representing pharmacists in Australia. The PSA is a stakeholder with whom the Government

consulted when temporarily permitting the delivery of medication reviews by telehealth. Funding: None.

Provenance and peer review: Commissioned, externally peer reviewed.

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Table 3. Parties involved in each step of telehealth medication reviews

Telehealth medication review steps	Parties involved						
	Patient	General practitioner	Other medical practitioners (eg relevant specialists)	Accredited pharmacist	Community/hospital pharmacist	Carers/family members/friends	Other health professionals*
Assessment of need	✓	✓	✓	✓	✓	✓	✓
Referral for medication management review		✓	✓				
Medication management review†	✓			✓	✓	✓	✓
Medication management plan	✓	✓	✓			✓	
Follow-up medication reviews†	✓			✓	✓	✓	✓

*Other health professionals include nurses, Aboriginal and Torres Strait Islander Health Workers, physiotherapists, dietitians, etc.

†Medication management reviews (including follow-ups) are conducted by accredited pharmacists, with help from supporting people including family members, carers, Indigenous health workers, etc.

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