

# Telehealth geriatrician consultations in home-based care

## Summary

### Authors

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### The challenge

A rural Victorian health service has transitioned to a non-admitted Geriatric Evaluation and Management at Home model incorporating staff-supported telehealth geriatrician consultations. The health service team was interested in the current research evidence for this model, specifically the known strengths / weaknesses and implementation facilitators / barriers in provision of telehealth geriatrician consultations for adults living at home.

### What we did

A search of academic articles was conducted in three electronic databases. From the initial search, 20 key articles relevant to the research questions were selected and synthesized. Additional resources from the grey literature were identified and included in the final Snapshot.

### What we found

- Commonly identified **strengths** of the model included: high levels of patient & provider acceptance and satisfaction, facilitation of patient & caregiver engagement, reduction in travel and associated stress, better clinician understanding of patients' home environments.
- Commonly identified **weaknesses** included: technology perceived as cumbersome and time-consuming, potential increase in need for in-person follow-up, potential patient reluctance to engage in telehealth consultations.
- Frequently reported **implementation facilitators** included: availability of support personnel for technical assistance and of caregivers for patient support, patient & provider interest and confidence in using telehealth, education and training for patients, caregivers, and providers.
- Frequently reported **implementation barriers** included: impaired functional ability in patients, consultations requiring physical assessments, low digital literacy, hesitancy and/or resistance from providers.

### What does this mean for health services and clinicians?

Key considerations for implementing this type of model include ensuring adequate training for all individuals using the technology, having technical support and back up processes in place, assessing and addressing patient & caregiver concerns around telehealth, practising telehealth-specific communication strategies, and having clear telehealth policies and procedures in place.

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## Background

The GEM@Home program provides short-term comprehensive geriatric evaluation and management to help older people achieve their care goals in the comfort of their own home. The program is modelled off the care delivered in the inpatient rehabilitation setting. An interdisciplinary team (medical, nursing and allied health) provides visits to clients most days of the week, with the number and frequency of visits determined according to individual patient care requirements.

Colac Area Health (CAH) has transitioned to a non-admitted GEM@Home model, which will incorporate staff-supported telehealth (TH) geriatrician consults using videocall software, rather than in-person geriatrician input. The GEM@Home team members were interested in looking at the evidence base for this type of model, specifically asking the following questions:

- *What are the strengths and weaknesses of telehealth geriatrician consultations for adults living at home?*
- *What barriers and facilitators have been reported in the implementation of telehealth geriatrician consultations in home-based care?*

## Literature search

A search of articles published in English in the past six years (since 2017) was conducted on 10/10/23 using three electronic databases (Cochrane, Medline and Embase). Search terms and inclusion exclusion criteria are detailed in Appendix 1. From the initial search, 20 articles were selected which were relevant to the research questions, 13 of which were from North America. No systematic reviews or randomized controlled studies were identified, with most articles included providing low levels of evidence (e.g., case studies with small samples). Additionally, no intervention fully matched the GEM@Home model being implemented by Colac Area Health. Full data extraction has been provided in Appendix 2.

## Findings

A number of strengths and weaknesses for patients and providers engaging in telehealth consultations were identified in the articles reviewed, and these are summarized in Table 1.

Some findings were conflicting. Notably:

- While some patients and clinicians report positive interactions via telehealth, others perceive difficulty establishing rapport and feel that interactions are more impersonal via telehealth.
- While time associated with travel is reduced with telehealth consultations, additional time may be required of clinicians to assist patients to set up and access telehealth facilities.
- Telehealth consultations increase caregivers' participation in consultations. However, there is a risk of caregivers encroaching on patients' responses and participation, as well as limiting patient opportunities to raise concerns about potential elder abuse.

Table 1 Reported strengths and weaknesses of telehealth (TH) geriatrician consultations

Domain	Strengths	Weaknesses
Safety	Reduced risk of infection transmission <sup>5,7,9,15,20</sup>	Patient / caregiver concerns that TH less effective for diagnostic purposes <sup>17,20</sup>
Communication	Easily able to build rapport, <sup>1,15</sup> effective communication, <sup>9</sup> video consultation perceived as comparable to in-person interaction <sup>17</sup>	Interactions perceived as less personal than in-person, <sup>12</sup> communication not as fluid, <sup>12</sup> potential difficulty establishing rapport <sup>3,19</sup> and reduced opportunity for patient to disclose elder abuse <sup>5</sup>
Clinical impact	Reduced distractions (familiar environment for patient), <sup>1,15,17</sup> better clinician understanding of home environment <sup>1,3,9,15,20</sup>	Patient anxiety about TH use <sup>12,17</sup> may adversely affect patient performance during assessment, <sup>20</sup> confidentiality concerns <sup>5,12</sup>
Access	Improved access for rural communities <sup>5</sup> , reduced travel and associated stress, <sup>1,4,5,7,8,9,12,14,15,17</sup> time efficient, <sup>1,3,17,20</sup> reduction in no-show rates, <sup>5,16</sup> reduced costs, <sup>2,10,12,14</sup> easy set up and usability <sup>9</sup>	Technology perceived as cumbersome and time-consuming, <sup>5,7,9,20</sup> TH consultation may take longer than in-person <sup>17</sup> and may identify need for in-person follow-up <sup>1,10,17,20</sup>
Collaboration	Facilitates multi-disciplinary collaboration <sup>1,10,16,20</sup> and simultaneous engagement with patients and caregivers <sup>1,4,9,16,17,19,20</sup>	Caregivers can become overly involved in consultation <sup>4</sup>
Patient perceptions	High levels of patient / provider acceptance and satisfaction, <sup>1,3,9,10,12,13,14,15</sup> greater feelings of empowerment, hopefulness and support, <sup>5,14</sup> upskilling of patients / caregivers with use of TH tools <sup>9,17,20</sup>	Patient not receiving as much information or treatment as desired, <sup>14</sup> potential patient reluctance to engage in TH consultation <sup>1,3,12,20</sup>

Facilitators and barriers to provision of telehealth consultations were also identified for both patients/caregivers and providers, and these are summarized in Table 2. Specific considerations for the suitability of TH consultations were identified:

- Multiple studies found that in-person consultations should be prioritized for mobility and falls risk assessments, where the patient does not have caregiver support, and when consultations will include sensitive or complicated conversations (e.g., delivering 'bad news').
- Some studies found that triaging patients according to functional abilities, communication barriers, and complexity of health issues was helpful. However, these may be overcome in some cases, e.g., with the use of headphones with adjustable volume and chat features for hearing impaired patients.

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Table 2 Facilitators and barriers to the implementation of telehealth geriatric consultations

Domain	Facilitators	Barriers
<i>Technology</i>	Internet access, <sup>8</sup> straightforward log-in processes and interfaces, <sup>4,5,9,13</sup> availability of compatible devices with cameras and microphones, <sup>7,8,14,16</sup> addressing patient technological concerns and barriers, <sup>7,10</sup> back-up plans to circumvent connectivity issues <sup>4,5,7,8,10</sup>	Lack of or disruptions to internet / device access, <sup>1,5,8,9,14,15,17,20</sup> low digital literacy, <sup>5,7,9,13,17,20</sup> technical difficulties (e.g., passwords, log-in instructions), <sup>1,3,4,5,9,10,12,14,15,17</sup> concerns about privacy and security, <sup>4,5,10,12</sup> variability of telehealth platforms <sup>5</sup>
<i>Training and support</i>	Education and training for healthcare patients / caregivers / providers, <sup>3,4,5,7,8,10,17</sup> assistance from caregivers / family, <sup>3,4,7,13,20</sup> support personnel for technical difficulties <sup>10,13,15,16,17,20</sup>	Lack of training and support for patients / providers <sup>5,7,10,13,20</sup>
<i>Policy and procedures</i>	Clear TH reimbursement policies, <sup>10,12,19</sup> TH policies and procedures that protect patient privacy and ensure equity and access <sup>10,12</sup>	Unaddressed medicolegal concerns, <sup>7</sup> lack of sustained insurance reimbursement, <sup>5,7</sup> confusion about processes <sup>13,14</sup>
<i>Personal factors</i>	Patient / provider interest and confidence in using TH, <sup>7,8,13,15,17</sup> existing patient-provider relationship <sup>17,20</sup>	Resistance / hesitancy from providers, <sup>4,7,10,14,17,19,20</sup> concerns about accuracy of TH assessments, <sup>3,5,10,13,17,20</sup> ageism and assumptions re: older patient interest and capacity), <sup>5,7,14,19,20</sup> patient / provider preference for in-person visits <sup>3,4,7,13,15,17,20</sup>
<i>Clinical</i>	Triaging patients for TH suitability, <sup>3,4,7</sup> targeting patients at high risk of hospitalization, <sup>12</sup> tailoring consultation foci to meet achievable goals, <sup>12</sup> support to collect clinical data within patient homes (e.g., from nurses, medical technicians, social workers, remote monitoring devices) <sup>4,5</sup>	Patient functional abilities (e.g., sensory impairments, communication difficulties), <sup>1,3,4,5,7,10,12,13,19</sup> complex/sensitive health issues, <sup>3,19</sup> consultations requiring physical assessments <sup>5,9,12,13,14,15,17,20</sup>
<i>Leadership</i>	Buy-in from multiple stakeholders, <sup>1,14</sup> facility-level leadership to encourage and sustain participation, <sup>1,14</sup> clinicians acting as program champions <sup>9,14</sup>	Lack of support from organizational leadership <sup>7</sup>
<i>Communication</i>	TH-specific communication strategies, <sup>4,7,13</sup> setting expectations at the start of TH visits <sup>10</sup> , obtaining and using patient feedback, <sup>8</sup> clear documentation strategies <sup>4,5,12</sup>	Communication difficulties due to jargon or technical terms, <sup>5</sup> language barriers for patients from culturally and linguistically diverse backgrounds, <sup>3</sup> and lack of translation services <sup>20</sup>

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## What does this mean for health services and clinicians?

### Key considerations for implementing telehealth geriatrician consultations:

- Ensuring adequate training for all individuals (patients, caregivers, providers) who will be utilising the technology.
- Having technical support and back up processes in the event of technical difficulties.
- Assessing and addressing patient / caregiver concerns around the use of telehealth.
- Designating an organizational champion to lead telemedicine efforts.
- Practising telehealth-specific communication strategies (e.g., providing multiple opportunities for questions, being mindful of microphone placement, managing multiple participants).
- Having clear telehealth policies and procedures in place, including addressing patient privacy.

### Limitations

This evidence snapshot is a summary of findings from key research articles identified through a rapid search strategy and judged to be of sufficient quality and relevance to the topic. It cannot be ruled out that a *systematic* review using different methodology would highlight different findings. Evidence relating to telehealth geriatrician consults for other populations (e.g., aged care residents) or to telehealth consultations for other disciplines (e.g., psychiatry, pharmacy) were not included, but may add further to the understanding of this topic.

This document has been prepared specifically to address the needs identified by the Colac Area Health GEM@Home team during their transition to a non-admitted GEM@Home model incorporating staffsupported telehealth geriatrician consultations. The recommendations and considerations for practice are intended to be read in conjunction with local policies and guidelines relating to the delivery of healthcare via telehealth. It is also assumed that clinicians engaged in supporting telehealth geriatrician consultations have completed relevant training.

### Other resources

Grey literature sources were not included in this research evidence snapshot. Clinicians are encouraged to consider guidelines relevant to their practice, such as:

- Guidelines: Telehealth consultations with patients (Medical Board of Australia)  
<https://www.medicalboard.gov.au/Codes-Guidelines-Policies/Telehealth-consultations-with-patients.aspx>
- Telehealth Guidelines and Practical Tips (The Royal Australasian College of Physicians)  
<https://www.racp.edu.au/docs/default-source/advocacy-library/telehealth-guidelines-and-practical-tips.pdf>

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## Appendix 1

Criteria	Included	Excluded
<b>Population</b>	GEM @ Home participants: medically stable older adults (over 65) with multiple and complex care needs who are assessed, treated, and managed at home (may also be referred to as residential in-reach, hospital avoidance, or admission avoidance programs participants).	Residents of aged care facilities
<b>Intervention/exposure</b>	Telehealth provision of geriatrician consultation or comprehensive geriatric assessment.	Geriatrician consultation provided 'in-person.' Telehealth consultations provided by other specialties or disciplines than gerontology (e.g., psychiatry, GPs, pharmacists, etc)
<b>Mechanism</b>	Barriers and facilitators to the provision of telehealth geriatrician consultations.	
<b>Publication types</b>	systematic reviews, meta-analyses, large RCTs (if none available: high-quality, peer reviewed studies).  English language full-text articles only.	Theses, conference abstracts, commentaries, editorials, published books, protocols, grey literature.  Full text articles not published in English.
<b>Publication date</b>	2017-now	Articles published prior to 1 <sup>st</sup> January 2017.

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Search terms:

Concept 1	Concept 2	Concept 3
home-based	geriatric*	telehealth
community	older	teleconsultation
home	senior	virtual
outpatient	ageing	remote
	elder	telemedicine
	aged	

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### **The DELIVER Research Project:**

- Identifies what the people and healthcare providers of western Victoria need most in terms of home-based healthcare services
  - Designs and tests the best way to deliver these services, so that home-based healthcare services will continue to grow and improve across the region and beyond
  - Supports the growth of research in western Victoria, so that future research findings can quickly be translated to improvements in healthcare
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