

## Telehealth and Geriatrics

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Three years after the invention of the telephone in 1876, physicians first used the telephone to reduce unnecessary office visits. By the early 1900s telephone communication between physicians and patients was becoming not uncommon. In 1924 the cover of Radio News showed a picture of a visionary radio doctor who was connected to his patient by a live picture and audio. Later in the 1920s Dr. Hugo Gernsback created the concept of “teledactyl” where the physician could not only hear and see their patient, but also examine them with robotic arms. At the end of the 1920s radio communication was used to provide medical care in remote areas such as Australia and to ships to care for sick passengers. By the end of the 1940s radiographs were being transmitted by telegraph. In 1964 the first telelink was established in Nebraska to provide psychiatric and neurological services. In 1967, the Massachusetts General Hospital established a telehealth link to provide care to persons at Boston’s Logan Airport (1, 2). In the 1960s with the advent of space travel, NASA established systems to collect biometric data and to provide medical care to astronauts.

In 1977 the Veterans Administration developed its telehealth outreach system to veterans in the USA who predominantly lived in rural areas. The GRECC Connect was established in 2008 to provide geriatric services to older veterans in rural centers (3).

In the last decade telehealth has become established in the USA, particularly in the Veterans Administration (4). Much data now suggests that video conference health professional visits are comparable to in person visits (5). This has been particularly true in dermatology, chronic heart failure, hypertension and diabetes mellitus. The major advantage of telemedicine for older persons is that it allows most of their medical visits to be at home rather than in a physician’s office. It also means that when an older person is developing a problem, they can rapidly interact with a health professional. The disadvantage is the problems an older person may have with using the technology, but as many older persons visit their health professional with a family member this can solve the problem. Over the past year the Saint Louis University geriatrics team has successfully done complex geriatric consults, predominantly in persons with moderate dementia, successfully over Zoom.

Besides regular visits for persons who are stable with chronic diseases, telehealth is an excellent way to manage geriatric syndromes. We have developed the Rapid Geriatric Assessment (RGA) which is an excellent approach to diagnose and follow frailty, sarcopenia, anorexia of aging and cognitive dysfunction (6, 7). We have also developed a computer assisted program that can identify and suggest management approaches for the syndromes (8). The RGA also asks that older person what matters to them and explores their approach to advance directives. At Saint Louis University, we have developed a computer based annual wellness visit which can be completed annually with the assistance of a caregiver. For persons with sarcopenia exercises can be delivered by the telehealth “geroton”. For persons with dysphoria, we have used the Finnish “Circle of Friends” approach by telehealth (9). Cognitive Stimulation Therapy (CST) is an excellent approach to slow cognitive decline and can be delivered by telehealth (10). Provided technical glitches can be solved, caregivers and patients are happy with video telehealth (11). It is important to health professionals delivering telehealth that they be aware that there are many unique factors involved to do this successfully and they be able to adapt to them (12).

A home telehealth program can enhance an older person’s quality of life and in addition telehealth can be used to deliver rehabilitation programs in the home. Telemedicine is a reasonable alternative for older persons with cognitive problems in comparison to in person visits (13). Telemedicine can decrease emergency department visits in community dwelling seniors (14). Telemedicine can decrease emergency department visits in community dwelling seniors (14).

Telehealth is a reasonable alternative for care for nursing home residents and can reduce the visits needed by the physician (15, 16). Telehealth care in nursing homes appears to reduce hospital admissions (16).

In 2020, the COVID-19 pandemic resulted in the need to make many adaptations to clinical care for older persons. Of these, the one positive would appear to be the increased awareness of the positive components of telehealth (18-20).

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