



Title	Telehealth: Clinical Guidelines and Technological Standards for Telerehabilitation
Agency	AETMIS, Agence d'évaluation des technologies et des modes d'intervention en santé 2021, avenue Union, bureau 1040, Montréal, Québec H3A 2S9, Canada; Tel: +1 514 873 2563, Fax: +1 514 873 1369; aetmis@aetmis.gouv.qc.ca, www.aetmis.gouv.qc.ca
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Aim

To propose clinical guidelines and technical standards that would foster the optimal telerehabilitation use, and to examine certain economic, legal, ethical, human, and organizational factors to highlight their importance in implementing programs successfully.

Conclusions and results

This is the second of 3 reports on different applications of telehealth (telepsychiatry, telerehabilitation, telepathology). In telerehabilitation, patients and health professionals communicate in real time via videoconferencing. Studies indicate that telerehabilitation can improve the continuity of care. Clinical activities suitable for telerehabilitation are: assessing clinical status, making a diagnosis, providing rehabilitation services, and dispensing technical aids from a distance. Because of their multidisciplinary nature, rehabilitation activities are well suited to telerehabilitation, tele-expertise, and teletraining. However, telerehabilitation is contraindicated in patients who refuse it, or have physical impairments preventing coherent communication, or have a health problem that cannot be evaluated via this technology or supervised from a distance.

Little has been done to assess the economic aspects of telerehabilitation, and methodological problems in analyzing the evidence often make it difficult to compare face-to-face consultations with telerehabilitation. From a societal perspective, the incremental cost estimate assumes that telerehabilitation activities take up the equivalent of 1.5 days per week. According to the experts consulted, this assumption is a realistic estimate of actual needs and considers the resources currently available. The room, equipment, and transmission lines could also be used for tele-education and tele-expertise in other fields, which would help offset the initial investment. Given the insufficiency of information and the approximateness of economic outcomes, the implementation of telerehabilitation should be followed by rigorous field assessments.

Because of patient/therapist discomfort with the distance and the equipment, care providers need training to help smooth the transition for their patients. Legislation and guidelines are needed to ensure that consent is obtained and that confidentiality is maintained.

Two aspects are discussed from an ethical standpoint: 1) the future prospect of increased access to specialized services in remote areas; and 2) the transformation of the traditional therapeutic relationship (face-to-face consultation). Telerehabilitation alone cannot be viewed as the solution to the problem of providing good coverage throughout the province.

Recommendations

Clinical guidelines: To provide service that is "relatively equivalent" to conventional therapy, telerehabilitation must be supported by a central reservation system, a generic consultation tool, thorough record keeping, standard agreements between the service governing and delivery bodies, remuneration mechanisms, training for providers, dispute resolution procedures, and staff coordination.

Technological standards: Effective services require consulting room standards (size, color, lighting, noise) and equipment standards (remote control cameras, telephone and fax, the H.264 compression standard, and a 384-Kbps reserved-bandwidth connection).

Methods

Literature search, expert interviews, equipment testing.

Further research/reviews required

The expanded implementation of telerehabilitation should be accompanied by a rigorous ongoing assessment of cost, satisfaction, quality, and accessibility.