

Methotelemed: evidence-based decisions making

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Telemedicine a tool for better prevention and care

- Improve quality of life of patients
- Better care : closer monitoring -earlier detection and diagnosis of diseases
- Increased accessibility to health services/professionals in remote, scarcely populated areas
- Empowered patients in managing their health conditions
- « Moving patients from hospital to home »
- Improving efficiency and timeliness of healthcare service provision



Commission's Instruments

- **Mix of policy and research actions:**
 - Research instrument:
 - Seventh Framework Programme (FP7)
 - Implementation, support to policies
 - Competitiveness Innovation Programme (CIP): Large Scale Pilot
 - Policy instrument:
 - Action Plan for a European eHealth Area (April 2004)
 - Communication on lead market (21/12/2007)
 - Recommendation on Interoperability (July 2008)
 - Communication on telemedicine (November 2008)



Objective of the Communication

'Telemedicine for the benefits of patients,
healthcare systems and society'

Commission Communication COM (2008) 689, 4.11.2008

- Enabling patients, society and the economy to take the maximum benefit from Telemedicine solutions
- Supporting EU Member States in integrating telemedicine services in their healthcare systems



Policy EC: ICT for patient-centered health service

Why- Policy Context:

- *“Communication on Telemedicine and benefits of patients, healthcare systems and society”* COM(2008) final, identified the need to have evidences on a large scale of the effectiveness of telemedicine solutions.

What - Aim:

- To validate in real life settings, the use of **existing** Personal Health Systems for innovative types of telemedicine services and to prepare for their wider deployment.
- To produce large-scale, measurable, comparable and **statistically significant results**, regarding the effectiveness of the solutions tested, using a commonly agreed and scientifically sound assessment methodology.

How- Proposed Funding Instrument: CIP

- Pilot A – up to 7 Mill EUR

A Communication on Telemedicine:

'Telemedicine for the benefit of patients, healthcare systems and society' November 2008

Set of actions aiming at:

- Confidence and acceptance
 - assessment methodologies, convincing body of evidence
- Legal certainty at EU and national levels
- Technical issues and facilitation of market development.
 - Interoperability of monitoring devices, certification & testing

Relevant studies:

- Business models for eHealth
- Monitoring eHealth strategies: lessons, trends and good practices
- **Methodology to Assess Telemedicine applications: Methotelemed**



In 2000

Telemedicine versus face to face patient care: effects on professional practice and health care outcomes.

[Currell R](#), [Urquhart C](#), [Wainwright P](#), [Lewis R](#).

Centre for Health Informatics, University of Wales Swansea, Plas Gogerddan, Aberystwyth, Ceredigion, UK, SY23 3EB.
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BACKGROUND: Telemedicine is the use of telecommunications technology for medical diagnosis and patient care. From its beginnings telemedicine has been used in a variety of health care fields, although widespread interest among healthcare providers has only now become apparent with the development of more sophisticated technology. **OBJECTIVES:** To assess the effects of telemedicine as an alternative to face-to-face patient care. **SEARCH STRATEGY:** We searched the Effective Practice and Organisation of Care Group's specialised register, The Cochrane Library, MEDLINE (1966-August 1999), EMBASE (to 1996), Cinahl (to August 1999), Inspec (to August 1996), Healthstar (1983-1996), OCLC, Sigle (to 1999), Assia, SCI (1981-1997), SSCI (1981-1997), DHSS-Data. We hand searched the Journal of Telemedicine and Telecare (1995-1999), Telemedicine Journal (1995-1999) and reference lists of articles. We also hand searched conference proceedings and contacted experts in countries identified as having an interest in telemedicine. **SELECTION CRITERIA:** Randomised trials, controlled before and after studies and interrupted time series comparing telemedicine with face-to-face patient care. The participants were qualified health professionals and

MAIN RESULTS: **Seven** trials involving more than 800 people were included. One trial was concerned with telemedicine in the emergency department, one with video-consultations between primary health care and the hospital outpatients department, and the remainder were concerned with the provision of home care or patient self-monitoring of chronic disease. The studies appeared to be well conducted, although patient numbers were small in all but one. Although none of the studies showed any detrimental effects from the interventions, neither did they show unequivocal benefits and the findings did not constitute evidence of the safety of telemedicine. None of the studies included formal economic analysis. All the technological aspects of the interventions appear to have been reliable, and to have been well accepted by patients.

REVIEWER'S CONCLUSIONS: Establishing systems for patient care **using telecommunications technologies is feasible**, but there is little evidence of clinical benefits. The studies provided variable and inconclusive results for other outcomes such as psychological measures, and no analysable data about the cost effectiveness of telemedicine systems. The review demonstrates the need for further research and the fact that it is feasible to carry out randomised trials of telemedicine applications. **Policy makers should be cautious about recommending increased use and investment in unevaluated technologies**

November 2004



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Yonsei Med J. 2004 Oct 31;45(5):761-75.
PMID: 15515185 [PubMed - in process]

2: [Demiris G, Oliver DR, Fleming DA, Edison K.](#)

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Am J Hosp Palliat Care. 2004 Sep-Oct;21(5):343-7.
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Improving learning outcomes: integration of standardized patients & telemedicine technology.
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The use of a European telemedicine system to examine the effects of pollutants and allergens on asthmatic respiratory health.
Sci Total Environ. 2004 Dec 1;334-335:417-26.
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5: [Woodson KE, Sable CA, Cross RR, Pearson GD, Martin GR.](#)

Forward and store telemedicine using motion pictures expert group: A novel approach to pediatric tele-echocardiography

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Gastrointest Endosc. 2006 Apr;63(4):539-45. No abstract available.

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► New technologies for chronic disease management and control: a systematic review

Francisca García-Lizana* and Antonio Sarría-Santamera*†

*Agency for Health Technology Assessment, Institute of Health 'Carlos III', Madrid; †Department of Social Medicine, University of Alcalá Faculty of Medicine, Alcalá de Henares, Spain

Summary

We conducted a systematic review of the clinical effectiveness of interventions using information and communication technologies (ICTs) for managing and controlling chronic diseases. Electronic databases were searched for randomized clinical trials that assessed the effectiveness of ICTs (except for those that included only telephone communication) and measured some clinical indicator. Information was reviewed and assessed independently by two researchers. Of the 950 clinical trials identified, 56 studies were identified for potential inclusion. Of those, 24 were finally included: 5 studies in asthma, 3 in hypertension, 1 in home telecare, 7 in

► New technologies for chronic disease management and control: a systematic review

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Summary

The interventions assessed were very heterogeneous, with differences in the technologies applied, settings in which they were evaluated, patient characteristics and length of follow up.

Lack of a standardized system to put into practice ICTs, represents a barrier for evaluating their potential benefit and a challenge for further research.

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1: [Disabil Rehabil.](#) 2009;31(6):427-47.

A systematic review of clinical outcomes, clinical process, healthcare utilization and costs associated with telerehabilitation.

[Kairy D](#), [Lehoux P](#), [Vincent C](#), [Visintin M](#).

Department of Health Administration, University of Montreal, Canada. dahlia.kairy@umontreal.ca

PURPOSE: To identify clinical outcomes, clinical process, healthcare utilization and costs associated with telerehabilitation for individuals with physical disabilities. **METHOD:** Relevant databases were searched for articles on telerehabilitation published until February 2007. Reference lists were examined and key journals were hand searched. Studies that included telerehabilitation for individuals with physical impairments and used experimental or observational study designs were included in the analysis, regardless of the specific clientele or location of services. Data was extracted using a form to record methodological aspects and results relating to clinical, process, healthcare utilization and cost outcomes. Study quality of randomized clinical trials was assessed using the PEDro rating scale. **RESULTS:** Some 28 articles were analysed. These dealt with rehabilitation of individuals in the community, neurological rehabilitation, cardiac rehabilitation, follow-up of individuals with spinal cord injuries, rehabilitation for speech-language impairments, and rehabilitation for varied clienteles. Clinical outcomes were generally improved following a telerehabilitation intervention and were at least similar to or better than an alternative intervention. Clinical process outcomes, such as attendance and compliance, were high with telerehabilitation although few comparisons are made to alternative interventions. Consultation time tended to be longer with telerehabilitation. Satisfaction with telerehabilitation was consistently high, although it was higher for patients than therapists. Few studies examined healthcare utilization measures and those that did reported mixed findings with respect to adverse events, use of emergency rooms and doctor visits. Only five of the studies examined costs. There is some preliminary evidence of potential cost savings for the healthcare facility. **CONCLUSION:** While evidence is mounting concerning the efficacy and effectiveness of telerehabilitation, high-quality evidence regarding impact on resource allocation and costs is still needed to support clinical and policy decision-making.

Thank you

