

# TRIAGE QUALITY IN A SWISS TELEMEDICAL CENTER A PROSPECTIVE STUDY IN A HMO SETTING

*von Overbeck J, Lienert N, Rimner T, Grüniger T, Fischer A, Reichlin S*  
*Medgate Centre for Telemedicine, Switzerland*  
*HMO Gesundheitsplan Basel, 4010 Basel, Switzerland*  
jan.vonoverbeck@medgate.ch

Medical doctors regularly give advice to their patients over the phone. Specialized centres focussing on telemedicine are emerging as important partners within the health care system. The core competence of a telemedical centre is efficient triage, allowing better allocation of resources with shorter medical-diagnostic pathways. Furthermore it empowers the patient and therefore increases overall compliance. Quality assessment of this triage function is paramount to any telemedical centre. This prospective study evaluates the triage quality of medical doctors in a Swiss telemedical centre ([www.Medgate.ch](http://www.Medgate.ch)) based in Basel.

Medgate has a team of medical doctors specifically trained in telemedicine available 24 hours a day, 7 days a week. They give advice to patients, who have access to the service through their health care insurance. The goal of the present study is to assess the triage quality of a subset of patients attending a HMO in Basel (“Gesundheitsplan Basel”). Outside office hours the HMO patients can contact Medgate for advice. The reason for calling is registered, and if a medical condition is diagnosed a full history is taken. The diagnosis is discussed with the patient and a management plan is proposed. This always includes a time frame (self-care, physical consultation within next 12 hours, within 48 hours or an emergency) as well as a proposal for a specific care provider (self-care, general practitioner, specialist, emergency doctor/emergency room or hospital admission). The call is fully documented in a standardized form and the information transmitted to the treating HMO medical doctor.

This prospective study evaluates all consecutive calls of adult patients (n = 91) insured and treated by this HMO. The complete telemedical documentation was compared with the structured review of the HMO patient chart 60 days after the telephone triage. Two independent experts compared both documentations and assessed the quality and effectiveness of the telemedical triage. Diagnosis, proposed time frame for action, and referral to further health care provider were specifically reviewed. Compliance was assessed for all three aspects. The risk of adverse events was given special attention. The comparison was done according to a structured workflow. The local ethics committee approved the study.

In the period between 1.12.2002 and 30.11.2003 91 consecutive patients fulfilled the recruiting criteria. The age of the patients ranged between 19 and 89 years, 57% of the patients were female. For all three dimensions diagnosis, time frame, and referral the triage was found to have been appropriate in 84%, 81% and 81% of cases respectively. 100% of patients followed the advice given by the telemedical centre. One adverse event was found.

This prospective study demonstrates that the telemedical triage is an effective tool to handle out of hours patients’ requests. The very high compliance rate is a good indicator for high quality standard. The triage impact on outcome at 60 days is excellent and shows that telemedical centres can play an important role in the health care system.

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