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Recommendations for Safety in Teletriage from Israel and the United States

Telemedicine involves transmitting medical data electronically, using technologies like video calls, emails, and smartphones, to facilitate remote clinical health services. It enables geographically separated patients and caregivers to communicate, receive treatment, and access various medical services, enhancing patient care accessibility and clinician efficacy. Telehealth is a broader term encompassing all health-related services delivered via telecommunications technology, whereas telemedicine specifically refers to remote medical practice. Triage is the classification and prioritisation of symptoms to determine patients' care needs. Telephone triage, which predates telehealth, has evolved into teletriage, incorporating advanced technologies like video and biotelemetry. Teletriage involves brief, urgent remote encounters initiated by patients seeking symptom urgency assessments and clinical advice. It helps prevent unnecessary emergency department visits and aids in self-care. Despite its rapid development, telehealth faces challenges, including technology outpacing clinical standards, cost containment conflicts, and regulatory limitations. The absence of evidence-based guidelines and professional organisations specific to telehealth complicates its standardisation and safety. A review comparing two formal teletriage systems in Israel (Clalit Health Services) and the United States (Redwood Healthcare Plan) was conducted to assess their development, elements influencing safe practice, and patient outcomes. This study published in JMIR Human Factors aimed to provide insights beneficial for the telehealth industry and telemedicine advancement.

Role and Importance of Teletriage in Modern Healthcare

Teletriage has become essential due to cost-effectiveness and the need to reserve on-site appointments for severe cases. It has been informally practiced by clinicians since the 1970s and serves as an entry point to clinical care, identifying appropriate care levels ranging from self-care to emergency services based on symptom evaluations. The decision-making process in emergency teletriage is challenging due to the rapid nature of assessments, incomplete information, and varying patient communication abilities. Nurses primarily run teletriage systems, determining medical urgency and required healthcare types during telephone consultations, contributing to affordable and effective healthcare delivery.

Challenges and Controversies in Telehealth Implementation

In the United States, there's a struggle between cost-saving healthcare practices and patient access needs, potentially compromising safety by limiting service use or employing less qualified staff in telehealth. Several organisations, such as URAC, ACEP, ANA, and NANDA, have started developing regulations and guidelines for telehealth, emphasising the need for safety-focused research and outcome measures. Controversies surround teletriage referrals, with debates on appropriate versus over-referrals and the lack of consensus on evidence-based safe outcomes. Teletriage presents challenges due to conflicting goals of cost control and ensuring safe patient access to timely care. This underregulated subspecialty requires more research to ensure system safety.

Literature Review and Qualitative Assessment

The study consisted of two parts: a narrative review of literature focusing on teletriage systems operated by nurses and physicians in the United States and Israel, and a qualitative assessment involving interviews with selected healthcare professionals. The review encompassed English language publications from scholarly journals and organisations published between 1970 and 2023, including original research, clinical trials, observational studies, and expert opinions. For the qualitative assessment, interviews were conducted with 15 physicians from a paediatric teletriage service at Clalit Health Services in Israel and one nurse from a nurse teletriage service in the United States. The study aimed to explore and understand the teletriage practices and perspectives of these healthcare professionals in both countries.

Safety Concerns and Varied Practices in Teletriage

The review highlighted conflicting research findings on teletriage safety, with some studies suggesting potential risks to patient safety and others indicating improved safety outcomes. An analysis of a clinical call centre in the US revealed a lack of development and risk management elements in the system. Qualitative interviews with Israeli physicians emphasised the challenges and strategies employed in teletriage to ensure accurate diagnosis, appropriate decision-making, and patient safety. These strategies included leveraging experience, using clinical protocols, engaging in shared decision-making, applying nonmedical criteria, and utilising advanced tools like video chats.

The Impact of COVID-19 on Teletriage Services and System Quality

Teletriage involves remote clinical decision-making under uncertain conditions, making safety and timely care crucial. The growth of teletriage services has been accelerated by the COVID-19 pandemic, underscoring the need for safe and effective systems. The study highlighted differences between the US and Israel in teletriage practices, with the US system emphasising cost-effectiveness and delegation to nurses, while Israel focuses on physician expertise and universal healthcare. Both systems were found to have incomplete and variable quality, indicating the need for improvement in teletriage structure and processes. Key findings from the study included the lack of formal training for teletriage personnel, problematic protocols and documentation, limited experience and knowledge among decision-makers, and inadequate feedback mechanisms.

To enhance teletriage safety, the study proposed several recommendations:

- Specialised clinical training for teletriage tasks
- Development of evidence-based electronic algorithms and protocols
- Improved documentation practices
- Establishment of clinical call centre standards, including knowledge and experience of clinicians, call duration, and patient outcome feedback
- Addressing limitations in teletriage practices, such as call duration and compensation models

The study concluded that fostering teletriage patient safety requires qualified and experienced clinicians, specialised training, evidence-based guidelines, and effective documentation and monitoring practices. General steps to improve teletriage practices include adequate training, regulation of telecommunication devices and systems, appropriate patient selection, careful monitoring, quality assurance, follow-up care, and evidence-based research on system safety.

Source: JMIR Human Factors

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