

**STREAM II) Healthy Rural Communities**

(equity and access to health care, primary health care, health promotion and prevention, integrated health services)

**KEYWORDS**

- Acute and Emergency Care
- Technology

**Title: Medical consults via telehealth in rural emergency departments: a systematic review**

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**Background:** Rural and remote populations experience poorer health outcomes, and equitable access to health care is limited by geography, time and distance. Workforce shortages in rural health services are common, and a number of patients who require a medical consult will present to small rural emergency departments (ED) when no doctor is available. The provision of a medical consult via telehealth could provide safe and cost-effective health care for the patient as close to their home as possible, and maintain the viability of small rural hospitals.

**Approach:** The aim of this study was to synthesise the literature regarding medical consultations performed via telehealth in rural EDs, and to identify factors associated with feasibility, effectiveness and sustainability. We conducted a systematic review of the literature in accordance with accepted methodologies. We searched peer-reviewed electronic databases MEDLINE, Embase and CINAHL. The search was limited to English language, and articles published after 1 January 2006. Search terms were related to “telehealth”, “telemedicine”, “rural”, “remote”, “emergency” and “consultation”. Of 833 records identified and screened, 98 full-text articles were assessed for eligibility, and 20 studies were included in the final review. Of the 20 studies, eight reported quantitative data, four qualitative data and eight were a combination.

**Outcomes/Results:**

Telehealth was found to be cost-effective (4 studies), technically feasible (5 studies) and improved accessibility by enabling local treatment (4 studies). Telehealth was acceptable (8 studies), reduced transfer rates and increase discharge from local emergency departments (5 studies). Clinical care was determined as meeting required quality or safety (5 studies) and workforce satisfaction, recruitment and retention (4 studies).

**Take Home Message:** Telehealth has the potential to resolve the barriers to health care access experienced by rural communities. Providing equitable, safe and effective care using telehealth could be cost effective and reduce the need for some patient groups to travel to referral hospitals.