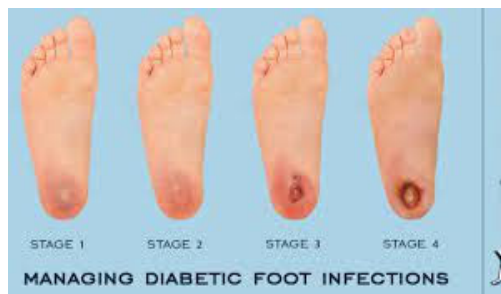


Background

Specialist care in North Queensland public healthcare facilities is not always practicable due to resource and staffing constraints.

Objectives

The aim of the project was to investigate cost dimension and effectiveness of telemedical treatment of diabetic foot ulcers in rural areas compared to standard outpatient treatment at the Townsville University Hospital.

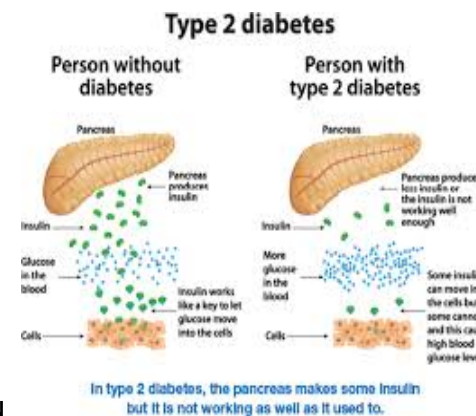


Method

Between January 2016 and January 2022, 151 patients with diabetic foot ulcers were randomised to usual care and another 50 to telemedicine. The telemedical treatment consisted of fortnightly treatments with locally trained nurse in the participants' own rural hospitals for 12 weeks and similar for the face-to-face cohort by podiatrist at the TUH as usual care. The study end points were complete ulcer healing or amputation. Data on clinical and cost dimensions were assessed. Cost comparisons (total and average costs per patient visit) between these two modes were determined to draw conclusions on the quality, timeliness, accessibility and effectiveness of care.

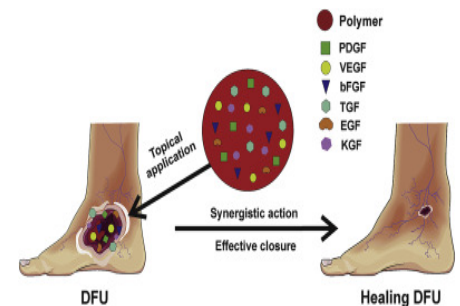
Results

Telemedicine option saved transport costs of patients from rural telemedicine locations at a statistically significant level, but the other costs (accommodation, meals, lost income and commuting costs during overnight accommodation) were not different at a statistically significant level. Ulcer healing and amputation rates were comparable in both groups.



Conclusions

Telemedicine has the potential to save societal costs (lost income, productivity, government subsidy) and can be as effective as hospital care in managing diabetic foot ulcer in rural/remote areas. Further studies are needed to verify our findings.



Acknowledgement

Participants from remote locations of North Queensland and Townsville Teaching Hospital for this pilot study.