Telehealth Audiology Service in Cairns and Hinterland Hospital and Health Service

Initiative Type

Model of Care

Service Improvement

Status

Close

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Summary

A co-located audiology service, delivered through a student-assisted telehealth model of care, was trialled for eight months with eligible patients on Cairns and Hinterland HHS Ear Nose and Throat (ENT) and paediatric waitlists. Findings demonstrated a positive impact on access to services, clinical effectiveness and efficiency.

Key dates

Jan 2017

Jun 2018

Implementation sites

Cairns Hospital

Partnerships

This project was a partnership between the Allied Health Professions' Office of Queensland, Cairns and Hinterland HHS and the University of Queensland Tele-rehabilitation Clinic.

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Aim

To pilot and evaluate an innovative student-assisted telehealth model of care to deliver same day, co-located audiology services to patients attending ear nose and throat (ENT) and general paediatric specialist outpatient clinics.

Benefits

The co-located audiology service, delivered through a student-assisted telehealth model of care, was an accessible, effective and efficient audiology service for patients over five years of age on the specialist outpatient ENT and general paediatric waiting list for Cairns and Hinterland Hospital and Health Service (CHHHS).

Background

There is a high demand for ENT services in CHHHS. An audit of the previously lengthy ENT specialist outpatient waiting list indicated 41 per cent of patients required audiology input. These audiology services have historically been outsourced to an off-site private provider often resulting in delays in service provision and multiple appointments for patients, many of who live outside Cairns.

Solutions Implemented

The model that was trialled included an allied health assistant facilitating the tele-audiology clinic within the specialist outpatient clinic and remotely conducting audiology assessments, as directed by an audiologist/supervised audiology student, based at a tele-rehabilitation clinic in Brisbane. The clinic ran three days per week, for the period of the study, with audiological assessments booked in conjunction with ENT specialist outpatient clinics to support coordinated patient care and streamlined service delivery.

Evaluation and Results

The tele-audiology model of care was evaluated using a mixed method approach. Findings from the trial demonstrated that the model of care was able to deliver an accessible, effective and efficient audiology service for patients on specialist outpatient ENT and general paediatric waiting lists. Key

results included

- 95 per cent of patients received a same day, co-located appointment with their ENT specialist outpatient appointment
- 99 per cent of patients were satisfied with the tele-audiology service
- all staff (multidisciplinary team, specialists, allied health assistants) were satisfied with the tele-audiology service
- significant reduction in failure to attend rates for audiology appointments (18 per cent to 6 per cent).

Lessons Learnt

Factors critical to success were:

- high level stakeholder engagement with regular communication and feedback
- staff training to ensure confidence in model and delivery of services
- identifying appropriate software that worked with QH internet firewall and security.

References

A paper is currently being drafted for publication. Below are some of the references used: Davalos, M.E., French, M.t., Burdick, A.E., & Simmons, M.S. (2009). Economic evaluation of telemedicine: Review of the literature and research guidelines for benefit-cost analysis, *Telemedicine and e-Health, 15, 933-948.* Hearing HQ. (2017). Teleaudiology: audiologists at your home. Retrieved on 23 Dec 2017 from http://www.hearinghq.com.au/news Maclennan-Smith, F., Swanepoel, D.W., & Hall, J.W. (2013). Validity of diagnostic pure-tone audiometry without a sound-treated environment in older adults, *International Journal of Audiology*, *52:2, 66-73*

Further Reading

Tele-audiology Resource Kit - Tele-audiology Clinic Manual and Role Description: Allied Health Assistant (Audiology)

Resources

PDF saved 22/05/2025