

## **SPEECH PATHOLOGY TELEHEALTH SERVICE**

Over the last 7 years the Speech Pathology & Audiology Department, Royal Brisbane & Women's Hospital in conjunction with researchers at the Telerehabilitation Research Unit, School of Health and Rehabilitation Sciences, The University of Queensland have conducted studies into developing and evaluating telehealth service models for the assessment and management of adult swallowing and communication disorders.

Evidence from these research projects have guided the design, development and implementation of the RBWH Speech Pathology Telehealth Service which supports the swallowing and communication management of patients with head and neck cancer living in regional cancer sites within Central Integrated Regional Cancer Service (CIRCS), Department of Health.

Commonly associated with head and neck cancer treatment, swallowing and communication disorders can cause significant health complications and affect quality of life. Patients living in regional and remote areas are often required to travel distances to access specialist speech pathology services resulting in costs for the health service and patient as well as emotional burden. The Speech Pathology Telehealth Service utilizes a share-care model whereby regional patients and clinicians in CIRCS link with specialist speech pathologists at RBWH for online assessment and management utilizing telehealth.

### **Key Outcomes of the Speech Pathology Telehealth Service**

Telehealth service model by developed and implemented by speech pathology telehealth service coordinator (Clare Burns), Professor Elizabeth Ward (Centre of Functioning & Health Research, Department of Health & The University of Queensland), Directors of Speech Pathology and key stakeholders from telehealth sites, CIRCS and Statewide Telehealth Services.

Telehealth equipment was funded through CIRCS (Asset Strategic Plan) and Statewide Telehealth Services (EOI Round 2). Equipment at each site includes mobile standard videoteleconference unit with integrated medical camera system (Inline Medical and Dental).

Funding to support the evaluation of the pilot and expanded telehealth services has been provided by Health Practitioners Research Grant (Allied Health Clinical Education and Training Unit), Australian Centre for Health Services Innovation (AusHSI) Stimulus Grant, and RBWH Research Project Grant

Pilot study conducted between Speech Pathology Departments of RBWH & Nambour General Hospital from January to May 2012. (Refer to published article attached). Summary of results as follows:

- 50 telehealth appointments conducted
- All patients managed effectively using telehealth. No patients required to travel to RBWH for face-to-face appointments,
- Very high levels of patient and clinician satisfaction,
- Opportunities for workforce training documented, and

- Preliminary cost savings reported.

Speech Pathology Telehealth Service expanded to include 4 sites (RBWH, Nambour, Hervey Bay & Rockhampton) in 2013. Current service incorporates -

- Weekly telehealth appointments offered
- Evaluation of telehealth service through formal PhD research project with comparison to standard supportive care (i.e. used of email/phone contact & face to face appointments). Outcomes being evaluated are –
  - Service provision and outcomes
  - Patient, carer and clinician satisfaction
  - Workforce training opportunities and benefits
  - Economic analysis by School of Health Economics, Griffith University

### **Additional RBWH Speech Pathology clinical telehealth projects**

Additional projects being conducted by are –

- Application of telehealth in Video fluoroscopic Swallow Studies conducted with Medical Imaging and Medical Physics Departments
- Application of telehealth in Fibreoptic Endoscopic Evaluation of Swallowing conducted with ENT Department, Thoracic Department, and Medical Physics

### **Future Recommendations**

- Inclusion of Allied Health Professions in telehealth governance structures/management forums to support engagement and advocacy for telehealth services relating to Allied Health disciplines.
- Engagement with Allied Health clinicians to ensure purchase of telehealth equipment supports clinical requirements/specifications and facilitates integration with external devices (e.g. medical camera systems) as required.
- Engagement of other professional groups who could support the development, implementation and evaluation of telehealth services. For example, Medical Physicists, who assess and support the technology associated with radiology/endoscopy, can assess and maximise the quality of images (i.e. monitor calibration, image quality testing) via telehealth vital for diagnosis.
- Continued reimbursement for both inpatient & outpatient telehealth occasions of service at both local and regional sites.

### **For further information please contact:**



Speech Pathologist  
Royal Brisbane & Women's Hospital  
Ph: [Redacted]

Professor Liz Ward  
Centre for Functioning & Health Research  
and School of Health and Rehabilitation,  
The [Redacted] Queensland  
Ph: [Redacted]