

2009 QUEENSLAND HEALTH AWARDS FOR EXCELLENCE

Branch: Statewide Telehealth Services
Category: Better meeting people's needs across the health continuum

Entry Title

Pre-admission Clinics using Telehealth Technology

Abstract

Since 1998, a pre-admission clinic at Toowoomba Hospital has been holding routine consultations for surgical patients one to two weeks prior to operation. The Toowoomba Hospital serves a vast and sparse region of south-west Queensland, extending to towns more than 800 km away.

Due to these distances, attending a consultation in Toowoomba a week or two prior to admission is often a significant burden to patients, and there was therefore often a need to choose between the need for proper preoperative assessment and the desire to avoid the impact of long return travel on the patient.

For this reason, it was decided to investigate whether these consultations could be delivered effectively to remote patients using telehealth.

Aim

This telehealth service aims to improve the access to the preadmission services of the Toowoomba Hospital by a video link to the Anaesthetic Consultant in Toowoomba. This will reduce the need for patient travel and in turn reduce the PTSS expenditure experienced by the Rural Hospitals.

Nature of the problem

Rural Hospitals currently have patients travelling to Toowoomba for a range of surgical procedures. Prior to their surgical admission they are also required to have their preanesthetic assessment carried out at the Toowoomba Hospital, requiring the patient to make two trips into Toowoomba.

The anaesthetic staff from Toowoomba Hospital have identified that a number of surgical procedures for which patients are being booked are routine and generally the patients undergoing these procedures are otherwise well, healthy and considered a low anaesthetic risk.

Further to this, the anaesthetic staff have determined that these patients could safely and effectively have their preanesthetic assessment carried out via telehealth and therefore reduce the need for them to travel into Toowoomba.

It is further determined that offering the Telehealth consultation as an alternative option for their preanesthetic assessment will reduce Patient Transport Subsidy Scheme (PTSS) costs currently being experienced by the Health Service Districts, and the Hospitals specifically.

Extent of the problem

Routine consultation at the pre-admission clinic involves a structured interview by a registered nurse and a formal consultation with a consultant or registrar in anaesthesia. Self-assessment health questionnaires are attempted by all patients prior to consultation and are completed with

the help of the interviewing nurse. These are well-established tools designed to collate simple physiological observations, a brief and focused medical and surgical history, and a list of medications and allergies. The questionnaire serves as a prompt for the assessing physician and as a safety layer of information gathering.

In a standard consultation a nurse first takes observations, such as weight, blood pressure, and an ECG trace if required, and then interviews the patient to determine details of their medical history. This is followed by an interview from the anaesthetist.

This requires patients, who may be ill, to travel significant distances to undergo this routine preadmissions check.

Strategic importance

Queensland Health is committed to providing sustainable and equitable services to those people living in rural and remote locations across the state.

The Preadmission Clinics via telehealth links allow patients to receive improved access to services that otherwise would have been difficult to access, directly aligning with the strategic goal of improving access to safe and sustainable health services.

Planning and implementing solutions

Telehealth, or telemedicine, generally refers to the use of telecommunications or videoconferencing technology to deliver health services. Telehealth is used across a broad range of clinical specialties, and for a variety of purposes, from standard consultations to remote monitoring, and home care scenarios.

In an effort to reduce the burden of travel for patients while maintaining the benefits of the preadmission consultations, a trial to deliver PAC consultations via telehealth from local health services was introduced in 2004 with the support of Queensland Health's Statewide Telehealth Services. In May 2004 there were four sites selected to progress the Pre Admission clinic via telehealth Videoconferencing. From that time to January 2008 there have been 20 rural hospitals that have elected to participate in pre-admission assessments of patients via the telehealth video conferencing network.

The trial aimed to reduce the burden of travel for rural patients by first designing a videoconference-based remote PAC consultation workflow and then building clinician confidence in the effectiveness of the remote consultations. A particular goal was to design a process that would be readily accepted and sustainable beyond the initial trial period, and so the remote consultation process was integrated as closely as possible into the existing workflow at both Toowoomba Hospital and the regional health services.

Outcomes and Evaluation

Key Performance Indicators for this project were as follows:

KPI 1: Decrease in PTSS expenditure for patients accessing preadmission services.

KPI 2: Decrease of 70% in patients, eligible for the Telehealth consults, travelling from rural site to Toowoomba for their preanesthetic assessment.

KPI 3: 80% patient satisfaction with the service

KPI 4: 80% clinician satisfaction with the outcomes of the Telehealth consultations,

The outcomes based on the above indicators are as follows:

KPI 1: The cost saving to Queensland Health has been approximately \$83,296 (PTSS total, less total direct costs) and \$423,454 to patients (total travel and time cost, less PTSS reimbursement).

On a per consultation basis the service saves Queensland Health \$57.00 and patients at least \$289.00

KPI 2: In the first 18 months of the service, of 289 patients only three consultations were deemed unsatisfactory by the consulting anaesthetist at the time, representing approximately 1% of the cases. In summary all patients attending the telehealth PAC would otherwise have travelled to Toowoomba to attend the PAC in person.

KPI 3: The nurses interviewed responded that clinicians were satisfied, or very satisfied with the service overall. All believed that the telehealth PAC consultations were just as effective as the in-person consultations.

KPI4: Clinicians had a high perception of the quality of the service and agreed that the consultation met its purpose.

Sustaining change

This project has proven a sustainable intervention that significantly reduces the burden of travel for regional patients, results in cost benefits to both the health service and patients, and has a high level of clinician and patient satisfaction.

The project is now complete, and as such, Toowoomba Health Service (THS) can now manage the business, and update any work instructions/service level agreements etc to reflect any changes made to their specific business processes.

Statewide Telehealth Services is now primarily used only for 'Help Desk' technical queries and its projects staff are available for assistance should services wish to expand further.

Future Scope

Users and clients are continuing to complete patient and clinician survey forms and are filtered back to Toowoomba Health Service business area to monitor success.

Based on the positive overall experience from the service, its utilisation continues to increase and further regional hubs have now been implemented in Rockhampton and Hervey Bay Hospitals.