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# Hands Rapid Access Service to reduce Length of Stay

Initiative Type

Model of Care

Status

Deliver

Added

21 May 2024

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<https://clinicalexcellence.qld.gov.au/improvement-exchange/hands-rapid-access-service-reduce-length-stay>

## Summary

The Hands Rapid Access Service was successfully implemented as an innovative occupational therapy led, care substitution model, that fast tracks stable non-surgical hand injuries out of The Prince Charles (TPCH) Emergency Department (ED) direct to hand therapy. The service optimises Adult Emergency and Orthopaedic referral pathways to prevent unnecessary fracture clinic

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referrals. Entry points to the service are from the Adult ED, Virtual ED, Kallangur Satellite Hospital and Minor Injuries Unit, General Practitioners (GPs) and self-referral. Patients referred to the service are placed on an orthopaedic substitution pathway for in-scope hand injuries such as mallet fingers, finger dislocations and sprains and stable metacarpal fractures. Patients who are referred during service hours (Monday to Friday 07:30 to 16:00) are prioritised for fast-tracked discharge from ED direct to hand therapy, while patients who present out of service hours are triaged at 07:30 the next working day. Advanced occupational therapists accredited by the Australian Hand Therapy Association work to full scope to provide same day screening, diagnosis and treatment for referrals received during service hours, and next working day triage for out-of-hours referrals. Patients whose injuries do not meet the criteria for the orthopaedic substitution pathway are accepted if early hand therapy intervention is clinically appropriate and will assist fast tracked discharge from ED. This patient cohort follows the traditional fracture clinic pathway for orthopaedic review. Effective procedures and clinical governance were evidenced by successful end-to-end service provision to 486 patients up to 1 May 2024, without clinical incidents or complaints. Service reach and target group identification was achieved, with activity exceeding initial expectations by 162% with 32.4 referrals per months fast tracked from ED versus 20 expected. A secondary setting avoidance rate of 50 per cent was achieved, with 50 percent of eligible fractures successfully diverted from fracture clinic using the full scope pathway.

#### Key dates

Dec 2022

Jun 2024

#### Implementation sites

The Prince Charles Hospital

## Key Contacts

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## **Aim**

To evaluate the implementation of a rapid access hand therapy service as an alternative, patient centred pathway to optimise flow through Emergency Department, improve patient and staff experiences, healthcare outcomes and cost-effectiveness.

## **Benefits**

Better care pathways: Patient flow, improved access and community initiatives  
The Hands Rapid Access Service model of care has the potential to be spread to other HHSs with demonstrated total service payback of invested funds within six months through improving patient flow, reduced emergency length of stay and fracture clinic diversion for stable, non-surgical hand injuries. Providing rapid access to hand therapy for this patient cohort has demonstrated positive outcomes for patients, including statistically significant improvement of quality-of-life measures and improved patient experience. During the implementation of the service at The Prince Charles Hospital, overwhelmingly positive support was received from key stakeholders including the Directors of Emergency, Orthopaedics, Nursing, and Allied Health, and staff working in these clinical areas. The successful implementation of this innovative service model at TPCH should facilitate the introduction of similar services at other hospitals. Providing rapid access to hand therapy direct from ED for stable, non-surgical hand injuries can improve patient outcomes without clinical incident, reduce length of stay in emergency with corresponding cost savings, and successfully divert eligible patients from fracture clinic, further streamlining the patient journey. There is capacity for scale and spread of this service model, with successful expansion of entry points already achieved including virtual ED, minor injuries unit, and GP referrals. Further reduction in care transition could be achieved by removing legislative barriers to occupational therapists requesting medical imaging.

## **Background**

To evaluate the implementation of a rapid access hand therapy service as an alternative, patient centred pathway to optimise flow through Emergency Department, improve patient and staff experiences, healthcare outcomes and cost-effectiveness.

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## Solutions Implemented

Patients who present to TPCH Emergency Department with a hand or forearm injury are referred directly to an in-house occupational therapist, who can assess their injury early and commence the necessary treatment.

## Evaluation and Results

A mixed-methods approach of evaluation, embedded within the Metro North Health Evaluation Framework was utilised to evaluate the implementation of the hands rapid access service. Patient-Reported Experience Measures (PREMs) and Patient-Reported Outcome Measures (PROMs) were collected via a consumer survey (paper or online based on consumer preference) and using the EQ-5D-5L health-related quality of measure completed pre and post treatment. Clinicians who refer to the service were invited to share their perceptions of the service via an online survey. Finally, a cost effectiveness analysis was conducted to quantify the economic impact of the service. Results; Preliminary analysis of 11 months of complete data demonstrated improved NEAT targets for this patient cohort, 94.5% of patients admitted to ED during Hand Rapid Access Service hours met NEAT targets (<240minutes). Average ED length of stay was reduced by 53 minutes for hands rapid access patients seen during service hours and by 38 minutes across all service hours when compared to hand related diagnoses prior to service implementation. Preliminary cost modelling based on the 38-minute average time saving per patient and total time saving of 227.37 hours over 11 months yielded a total saving of \$110,087.42 in costed Emergency Department service hours (estimates from National Emergency Care Data). Reduced length of stay cost savings yielded a 97.69% return on investment in 11 months, or a total health service pay-back of invested model costs within less than six months. Patient-reported outcomes based on pre/post treatment health-related quality of life measures (n=120) demonstrated statistically significant improvements ( $p < 0.001$ ) in five of the six domains of the EQ-5D-5L including self-care, usual activities, pain and discomfort, anxiety and depression and general health. Initial analysis on 130 completed consumer surveys showed overwhelming positive patient experience with 100% reported good or very good experience and would recommend the service. Qualitative responses highlighted the importance of local, timely access to specialist services and compassionately delivered care. Ten ED clinicians completed the stakeholder survey with 100% recommending the continuation of the hands rapid access service, agreeing that patients were rapidly retrieved from emergency; the service positively impacts the patient experience, efficiency, and quality of care; and the service has improved access to specialist advice and treatment of in-scope hand injuries.