

Project Title

Physiotherapy Collaboration with Emergency Department (ED) to Manage Low Back Pain patients

Project Lead and Members

Ringo Yee

Organisation(s) Involved

Tan Tock Seng Hospital

Project Period

Start date: Dec 2015

Completed date: May 2016

Aims

To improve the percentage of low back pain (LBP)* patients who had low back pain care** in ED achieving a Patient Specific Functional Scale (PSFS)^ walking score of $\geq 7/10$ one week after ED discharge from 25% to 75% within 6 months.

*LBP Cases:

- eligible for referral for ED Physiotherapy review
- not warranted for admission

**Low Back Pain Care: Seen by ED Doctor and ED Physiotherapist

^PSFS: A validated outcome measure (10-point scale; the higher score means the better function)

Background

ED physiotherapy intervention has been shown to help patients with acute LBP to better manage their walking function, i.e. to reduce the difficulty or bothersomeness

of performing walking activity; and up to 80% of patients shown having improvement. (Lau PM, et al, 2008; Leo Y et al 2015). In one HMDP attachment (Aug 2015) to 2 local acute hospitals in Australia, unpublished local data showed that patients with acute LBP who had ED Physiotherapy had improved in walking (with pain) 1 week after discharge from Emergency Department. Preliminary data had shown that in our TTSH ED, only 25% of LBP patients who had low back pain care in ED achieving PSFS walking score 7/10 one week after ED discharge.

Methods

The methodology from Clinical Practice Improvement Programme (CPIP) was utilized. It allowed the project team to have better understanding of patients' needs and diagnosing practice gaps; conducting root causes analysis (RCA); implementing interventions using plan-do-study-act (PDSA) cycles via collaborating with multi-disciplinary care providers e.g. ED doctors and nurses.

Results

There was a significant improvement shown in the percentage of targeted group of LBP patients who achieved PSFS walking score of $\geq 7/10$ one week after ED discharge within 6 months, i.e. an increase from baseline 25% to higher percentage range (66-100%). In addition, patients' feedback was consistently good via phone call follow up 1 week post ED discharge, as well as positive feedback from staff (both ED and Physio Department) was received - a good opportunity for staff from different departments to share with each other on patient management and clinical knowledge.

Lessons Learnt

Patients in acute pain in ED are often fearful of movements secondary to pain, and having other psycho-social factors such as having fixed negative beliefs which generally do not help generate favourable clinical outcome as expected. The team physiotherapists having continuing education and in-service training, as well as having gained good learning/working experience via multi-disciplinary team approach in ED

allows the team to continue improving and communicating well with patients to help them get better.

Conclusion

The multidisciplinary team care approach for the management of acute LBP patients in ED by the doctors, nurses and physiotherapists can foster good collaborative team work to produce better clinical outcome for the patients.

Additional Information

The project was awarded TTSH Quality Improvement Competition 2017 – Merit award.

Project Category

Clinical Improvement, Care Redesign, Quality Improvement

Keywords

Clinical Improvement, Care Redesign, Process Redesign, Quality Improvement, Patient-Centered Care, Early Intervention, Emergency Department, Physiotherapy, Low Back Pain, Clinical Practice Improvement Programme, Root Cause Analysis, Plan-Do-Study-Act, Quality Improvement Methodology, Tan Tock Seng Hospital, Allied Health, Patient Management, Care Continuity, Patient Specific Functional Scale, Discharge Planning, Multi-Disciplinary Team

Name and Email of Project Contact Person(s)

Name: Mr. Ringo Yee, Principal Physiotherapist, Tan Tock Seng Hospital

Email: ringo_yw_yee@ttsh.com.sg