

Improving Care for Hip Injury Patients

Shobhit S.¹, Naidu K.¹, Pang A.C.¹, Siti Nor Ilyana K.¹, Lee.T.K.¹, Ng.D.J.G.¹ Lim B.E.¹, See P.L.P.², Chin T.Y.², Rahul L.², Chin M.S.M.²

¹Acute & Emergency Care Centre, ²Diagnostic Radiology, Khoo Teck Puat Hospital

Background & Aims

This project was initiated to better manage A&E patients who have sustained a blunt or traumatic injury to the hip yet not fulfilling the admission criteria to hip fracture unit. These patients often ended up being admitted to general wards.

The focus of this project was to provide an alternative pathway for patients who may not require admission yet need further assessment before discharge

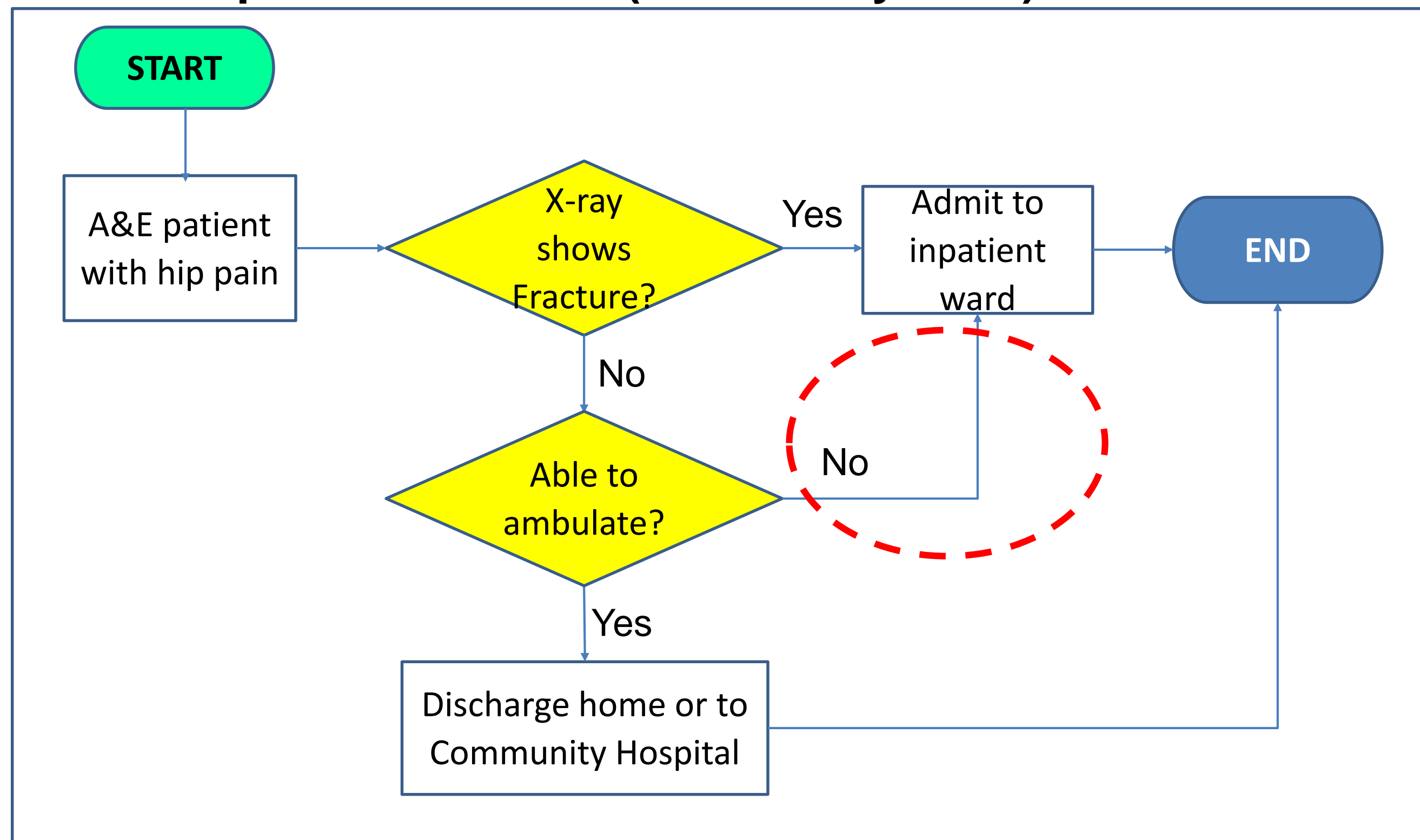
The main aim of this project is to reduce unnecessary admissions to inpatient wards, hence

- reducing the costs for patients
- improve the bed day savings for the hospital

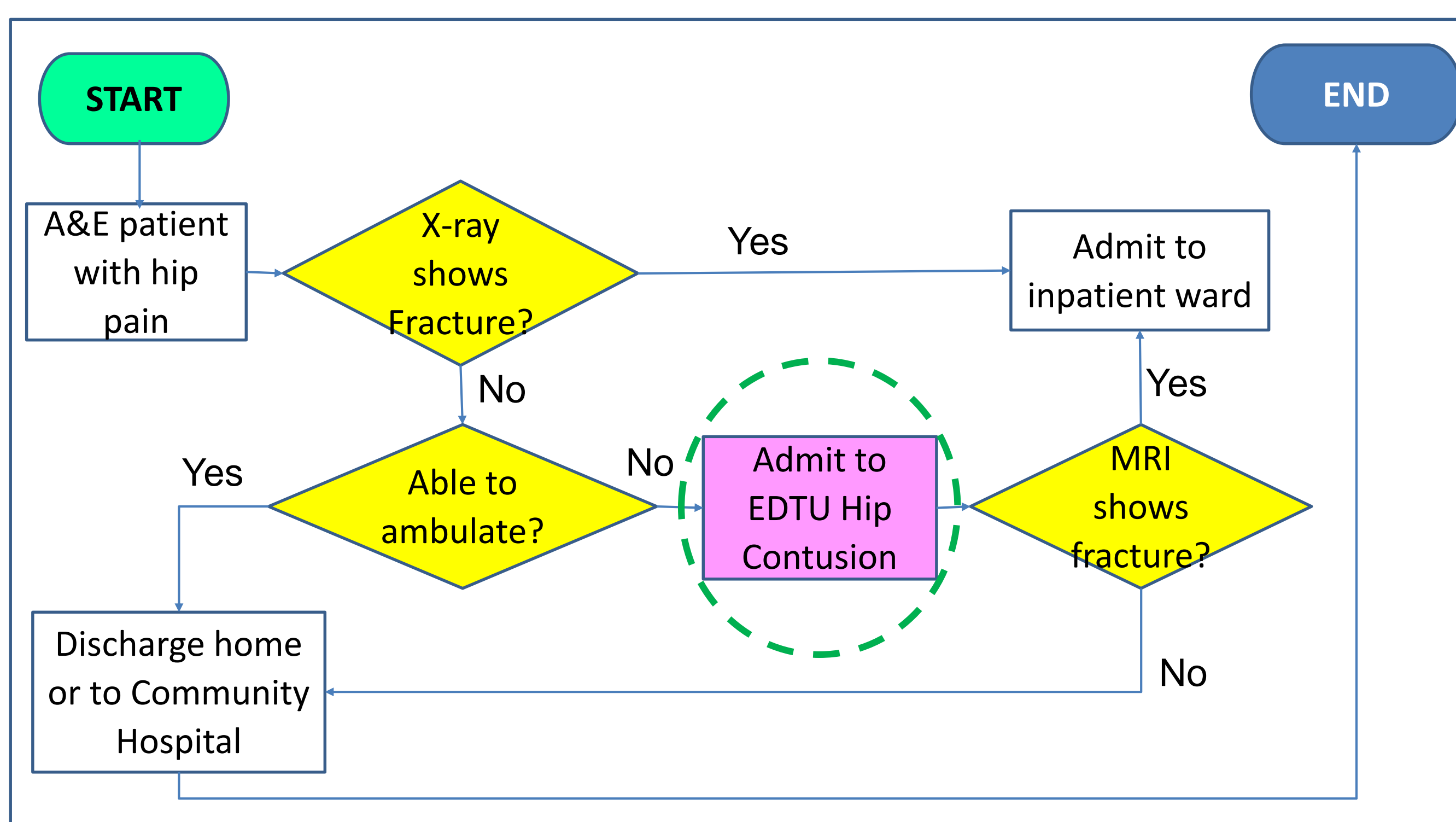
Methodology

Stakeholders (A&E, DDR) formed a work team, reviewed data of A&E Hip injury patient and their disposition, and proposed an alternative workflow

As-Is: Hip Pain workflow (before May 2018)



To-Be: EDTU Hip Contusion Workflow (From May 2018)



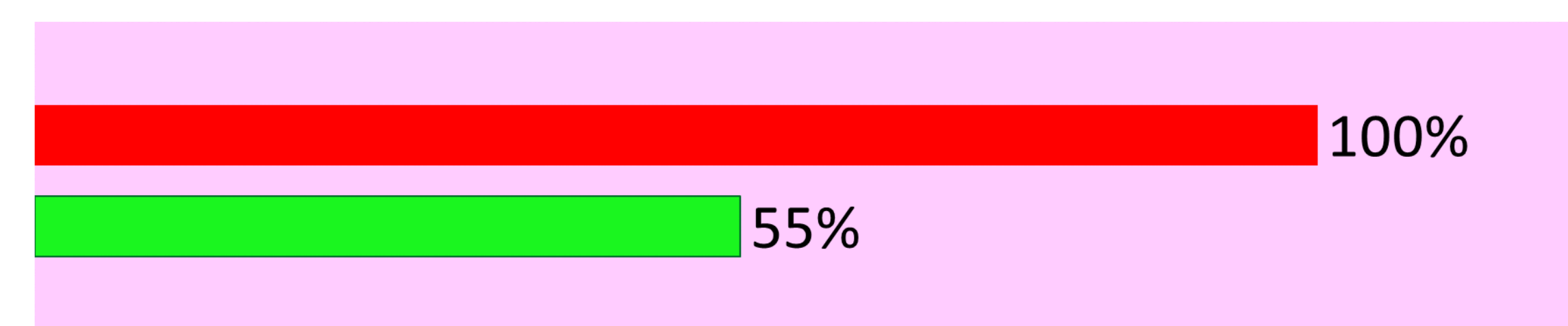
Key features:

- Timely assessment at EDTU short-stay ward
- Dedicated MRI slot within 24 hours (weekday only)

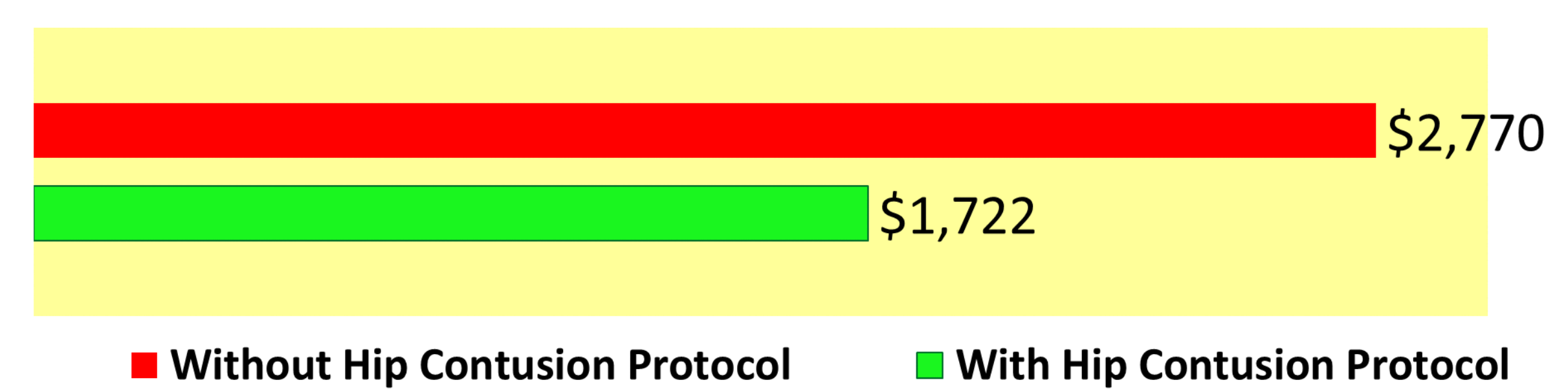
Results

From May 2018 to Feb 2020:

A) Percentage of A&E Hip Pain patients (non-ambulatory) who were admitted to inpatient wards



B) Average bill size(subsidised) of A&E Hip Pain patients who were admitted (non-Hip Fracture cases)



Project Impact

BETTER	39 patients discharged from Hip Contusion = 39 x 5.6 LOS= 218 bed days
Bed Day Savings	218 bed days @ \$650 per bed day = \$141,700
FASTER	MRI leadtime: Within 24 hours at EDTU vs up to 3 days at Inpatient Wards
Faster Diagnosis	Improved diagnosis time by up to 200%
CHEAPER	Average bill size (subsidized) per patient is reduced from \$2770 to \$1772
Patient Cost	Overall savings per patient: \$1048 (38%)
SAFER	Out of the 39 patients discharged from Hip Contusion Protocol, 1 returned for admission
Readmission rate	Readmission rate = 3% (compared with Inpatient readmission rate of 12.4%)

Sustainability

Since implementation in May 2018, the Hip Contusion protocol is well-received by stakeholders and has been made a standard protocol at EDTU

The work team:

- tracks the indicators in the results section for review and improvement
- reviews the screening process to improve the protocol for patients who are admitted before weekend and public holidays

Conclusion

The Hip Contusion protocol demonstrated the good team work of the various functional teams which is in line with NHG River of Life / Unified Care Model: Living with Illness. The project delivers values at reducing patient cost, and reducing YH's cost-to-deliver outcomes. Patients benefited from the faster diagnosis, had good outcome with a lower readmission rate.