

Project Title

Increase Rate of Decant for Eligible Patients Requiring Admission from TTSH
Emergency Department to Alexandra Hospital

Project Lead and Members

Project lead: Dr Chia Yih Chong Michael

Project members: Dr Lee Chiao Hao, Dr Loi Tsuan Hao, ANC Qiu Hong, Ethel Kan Kwai
Lam, Ng Sheh Li, Charlene Tey Zhi Min, Dr Zulkarnain bin Ab Hamid, Chew Ying Siang
Shane, Nurul Azura Binte Hamidi

Organisation(s) Involved

Tan Tock Seng Hospital, Alexandra Hospital

Healthcare Family Group(s) Involved in this Project

Medical, Nursing, Healthcare Administration

Applicable Specialty or Discipline

Emergency Medicine, Operations, Bed Management Unit, Financial Counselling,
Urgent Care Centre

Project Period

Start date: July 2019

Completed date: December 2019

Aims

TTSH has the busiest emergency department (ED) in Singapore. With a high clinical load, access block (bed block) is a constant, daily issue in TTSH. One of the strategies to mitigate access block is to decant patients requiring admission to other hospitals, e.g. Alexandra Hospital, so that access to care could be provided to patients in a timely manner.

This project aims to increase the rate of successful decant from Tan Tock Seng Hospital Emergency Department to Alexandra Hospital from 56% to 80% for eligible patients over 6 months.

Eligible patients are:

1. Patients requiring admission.
2. Patients fulfil assessment of suitability to be decanted.
 - a. Admission to general medicine discipline.
 - b. Exclude specialty medical care, e.g. cardiology, neurology, nephrology, gastroenterology, surgery and orthopaedics.
3. Patient / NOK agrees to decant to Alexandra Hospital.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

See poster appended/ below

Conclusion

See poster appended/ below

Additional Information

NHG Quality Improvement 2021: Building Strong Partnerships in Improvement Work (Best Award)

Project Category

Care & Process Redesign, Quality Improvement, Workflow Redesign, Access to Care, Waiting Time, Value Based Care, Productivity, Cost Savings, Care Continuum, Inpatient Care, Acute Care

Keywords

Patient Decanting, Root Cause Analysis, Affinity Diagram, Pareto Chart, Plan Do Study Act, Cause and Effect Diagram

Name and Email of Project Contact Person(s)

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Increase Rate of Decant for Eligible Patients Requiring Admission from TTSH Emergency Department to Alexandra Hospital (AH)

Dr Michael Chia Yih Chong
Department of Emergency Medicine

Mission Statement

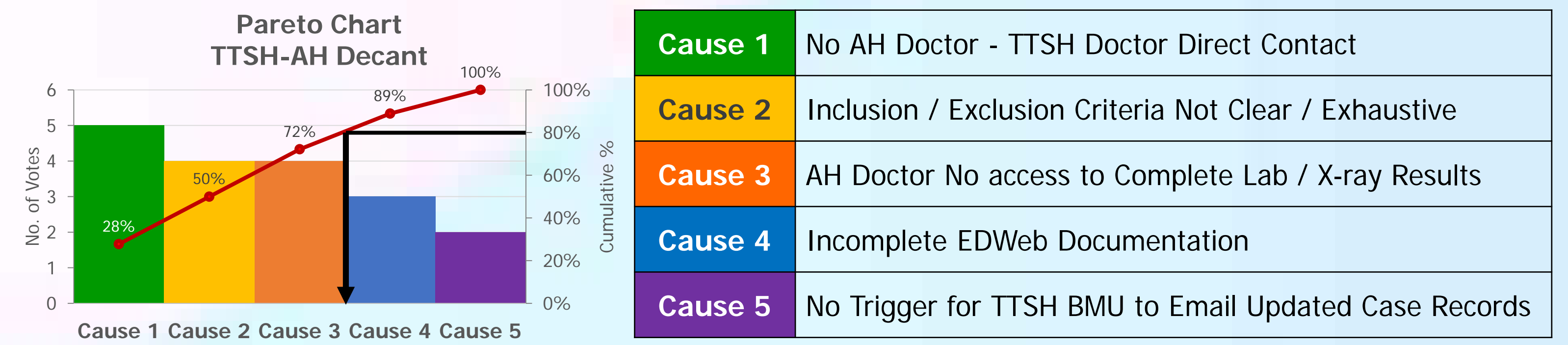
To Increase the Rate of Successful Decant from Tan Tock Seng Hospital Emergency Department to Alexandra Hospital from 56% to 80% (stretch goal 100%) for Eligible Patients* over 6 months

*Eligible Patients: (1) Patients requiring admission; (2) Patients fulfil assessment of suitability to be decanted (a) Include Medical Discipline & (b) Exclude Specialty Medical Care (eg. Cardiology, Neurology, Renal, Gastroenterology & Surgery and Orthopaedics; (3) Patient / NOK agree to decant to Alexandra Hospital

Team Members

	Name	Designation	Department
Team Leader	Dr Michael Chia Yih Chong	Senior Consultant	Emergency Medicine
TTSH Team Members	Dr Lee Chiao Hao	Associate Consultant	Emergency Medicine
	Dr Loi Tsuan-Hao	Principal Resident Physician	Emergency Medicine
	Qiu Hong	Assistant Nurse Clinician	Emergency Medicine
	Ethel Kan Kwai Lam	Senior Manager	Emergency Medicine
	Ng Sheh Li	Executive	Bed Management Unit
	Charlene Tey Zhi Min	Senior Executive	Financial Counselling
AH Team Members	Dr Zulkarnain Bin Ab Hamid	Consultant	AH Urgent Care Centre
	Chiew Ying Siang Shane	Senior Patient Service Associate	AH Urgent Care Centre
	Nurul Azura Binte Hamidi	Patient Service Associate	Bed Management Unit
Sponsors	Dr Keith Ho	Head of Department	AH Urgent Care Centre
	Adj Asst Prof Ang Hou	Head of Department	Emergency Medicine
Mentor	Adj A/Prof Tan Hui Ling		

Pareto Chart

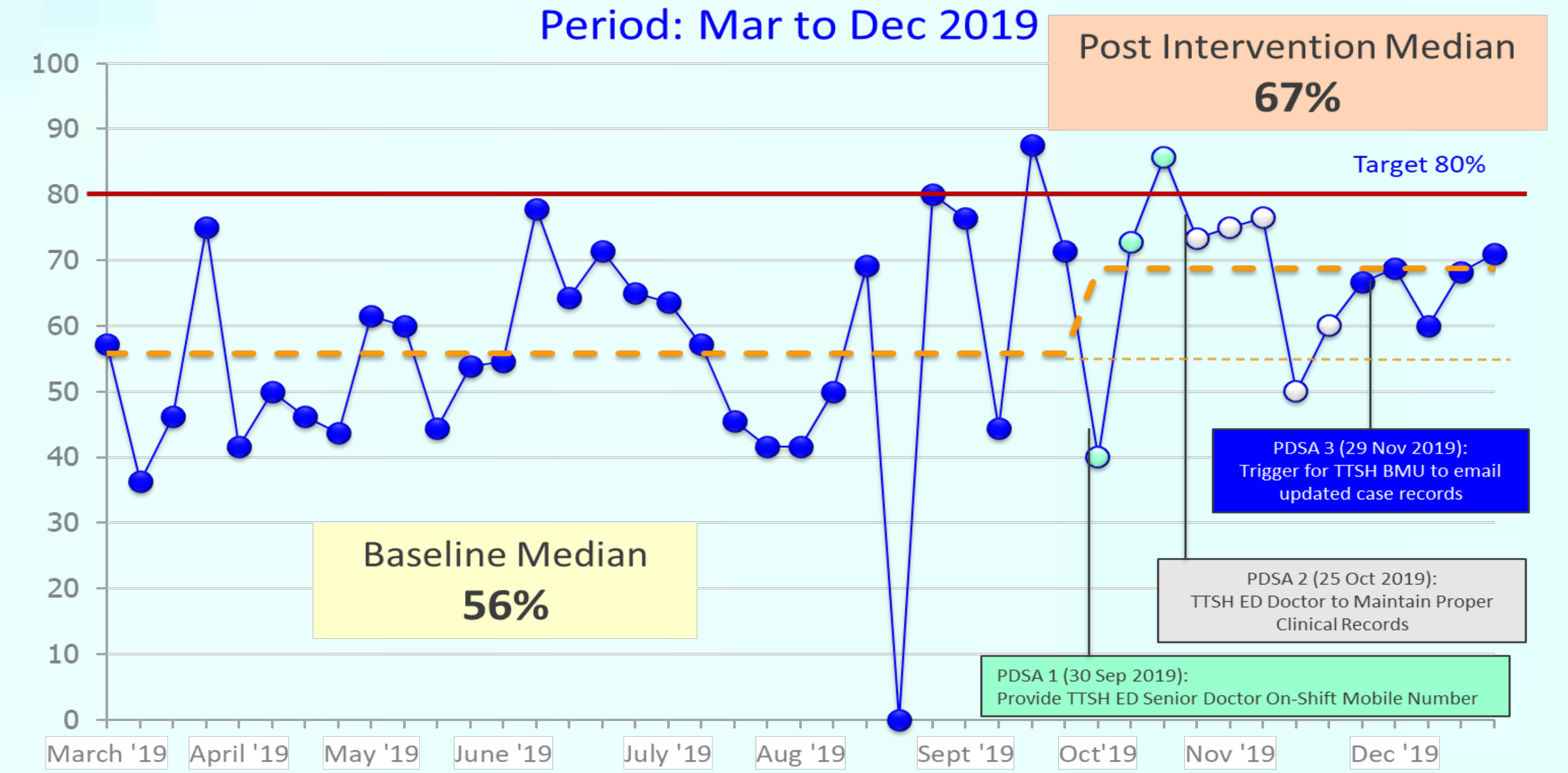


Implementation

Root Cause	Intervention	Implementation Date
Cause 1: No AH Doctor - TTSH Doctor Direct Contact	Provided TTSH ED Doctor mobile phone number to AH ED Doctor for direct contact 24hrs, 365 days.	30 Sept 2019
Cause 4: Incomplete EDWeb Documentation	The need for proper documentation shared at TTSH ED Department M&M	25 Oct 2019
Cause 5: No Trigger for TTSH BMU to Email Updated Case Records	ED Doctor to alert TTSH BMU through EDWeb to fax clinical notes once updated and completed	29 Nov 2019

Results

% of Successful Decant for Eligible Patients to Alexandra Hospital



Month	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019
No. of eligible patients & agreed for decant	39	49	45	61	48	57	48	38	71	67
No. of successful decants	20	22	25	40	25	29	34	27	47	45

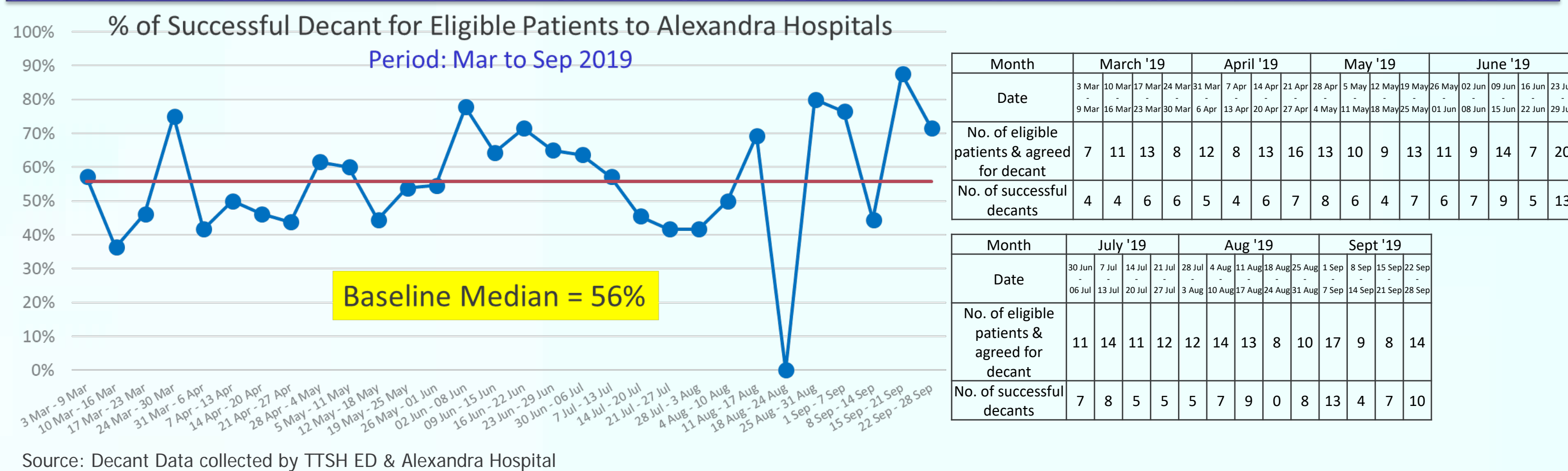
Source: Decant Data collected by TTSH ED & Alexandra Hospital

Evidence for a Problem Worth Solving

Top 5 Reasons of Rejection by Alexandra Hospital

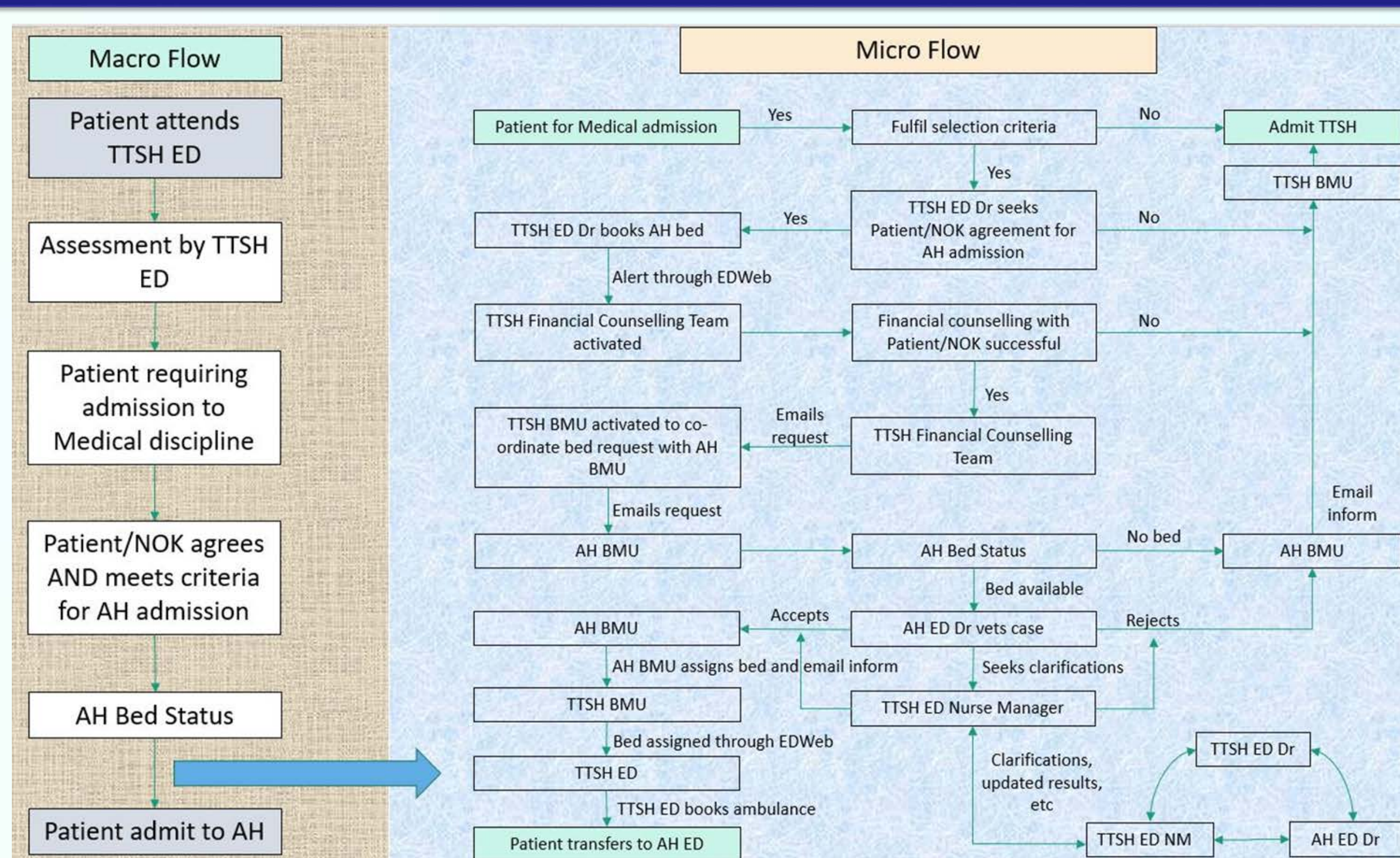
1. Patients with background of Psychiatric and/or Alcoholic issues
2. Patients with undifferentiated chest pain, raised troponin, needing telemetry and/or Cardiology review
3. Patients with undifferentiated anaemia
4. Patients with hypo/hyper-kalemia
5. Patients with Fever AND
 - Abdominal pain, tender => unable to rule out intra-abdominal sepsis
 - Joint pain, back pain => unable to rule out septic arthritis / discitis
 - Headache => unable to rule out meningococcal meningitis
 - Cellulitis with bullous => unable to rule out necrotizing fasciitis
 - UTI with previous renal stone or ureter device => unable to rule out kidney abscess

Current Performance of a Process

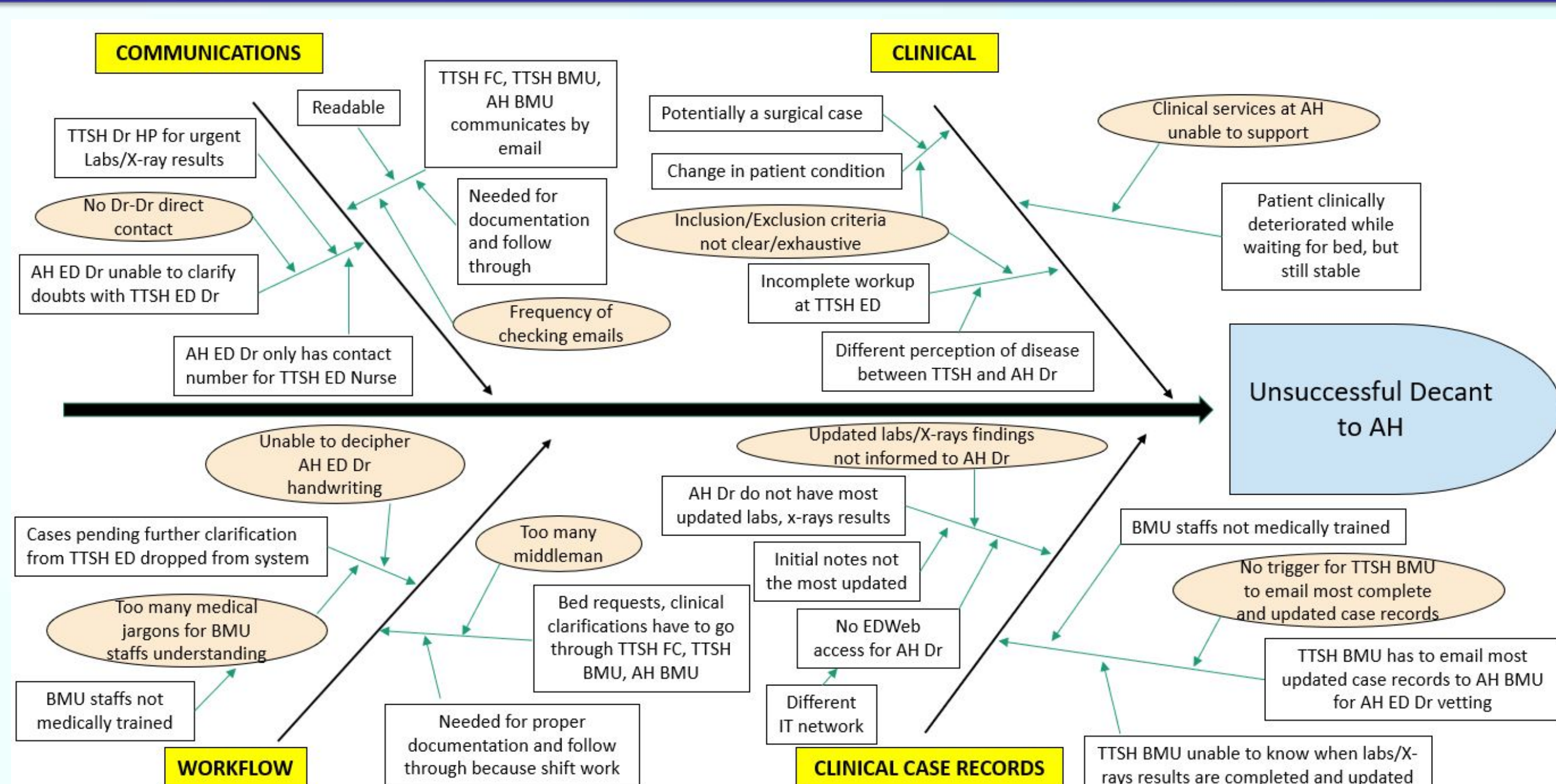


Source: Decant Data collected by TTSH ED & Alexandra Hospital

Flow Chart of Process



Cause and Effect Diagram



Cost Savings

	Pre-Implementation (Mar 2019 to Sep 2019)	Post-Implementation (Oct 2019 to present)
% of Patients Decanted to AH	56%	67%
Successful average number of patients decanted (Per Week)	6.47 patients	9.15 patients
Assume: Average LOS per patient in TTSH General Ward is 3 days		
No. of Bed Days Saved (Per Week)		$(9.15 - 6.47) \times 3 = 8.04$
Total No. of Bed Days Saved (Annualized)		$8.04 \times 52 = 418$
Difference in Bed Days in Monetary Terms (Annualized):		$418 \times \$1,114 = \$465,652$

Note: Unit Cost Inpatient Ward Stay = \$1114/patient/day

Problems Encountered

1. Difficult to implement project involving different hospitals (TTSH and AH); and different departments (AH Emergency Department and AH General Medicine).
2. Difficult to co-ordinate common time for meetings when CPIP group is large.
3. Very important to have strong support from Sponsors.
4. Knowing the ground & work processes is essential for planning interventions.
5. As interventions involve multiple teams (medical, nursing to administrative staffs), very important to check understanding between all parties.
6. Best to communicate face-to-face to avoid misunderstanding, compared to using text messages via emails or WhatsApp.

Strategies to Sustain

1. Continual education
 - New staff orientation (doctors, nurses, administrative staffs)
 - Reminders at monthly M&M Rounds; Nursing Forums; Roll Calls
2. Empowerment of ground staff - Identify champions who will constantly remind or new methods to operationalising workflow
3. Communications with other hospital
 - Open communication channels for constant feedback, review and audit.
 - No blame culture
 - Building trust
 - Willing to try new ways/methods of doing