

CHI Learning & Development (CHILD) System

Project Title

Emergency Ambulatory Surgery (ACES) Bringing Care to Patients' Homes

Project Lead and Members

Project lead: Dr Jerry Goo Tiong Thye

Project members: Lee J.1, Lim W.W, Shobhit S, Ong Y.J, Kang M.L, Lee C.C, Lee N.L,

Wong S.M, Tew C.W

Organisation(s) Involved

Yishun Health, Khoo Teck Puat Hospital

Healthcare Family Group(s) Involved in this Project

Surgery, Nursing, Medical, Allied Health

Applicable Specialty or Discipline

Emergency Medicine, Surgery

Project Period

Start date: June 2022

Completed date: Dec 2023

Aims

- Assess, diagnose and treat patient, with early discharge within 24 hours
- Reduce inpatient emergency surgery admissions: 80% patients to be discharged home from ACES
- Improve overall patient experience: ALL patients to receive senior clinician review with at least 85% reviewed within 4 hours and at least 75% within 2 hours.

Background

See poster appended/below



CHI Learning & Development (CHILD) System

Methods

See poster appended/below

Results

See poster appended/below

Conclusion

ACES initiative in KTPH is effective in reducing length of stay, improved
patient experience, saved hospital beds and costs through increase in sameday discharge for the selected surgical patients.

 ACES workflow, the 1st of its kind in local context, has integrated itself within KTPH workflow and become an essential part of the pathway to right site surgical patients to the best possible care.

Project Category

Care & Process Redesign

Value Based Care, Length of Stay, Patient Satisfaction, Productivity, Cost Saving

Keywords

Surgical patients, General Surgery, Patient experience, Sustainable

Name and Email of Project Contact Person(s)

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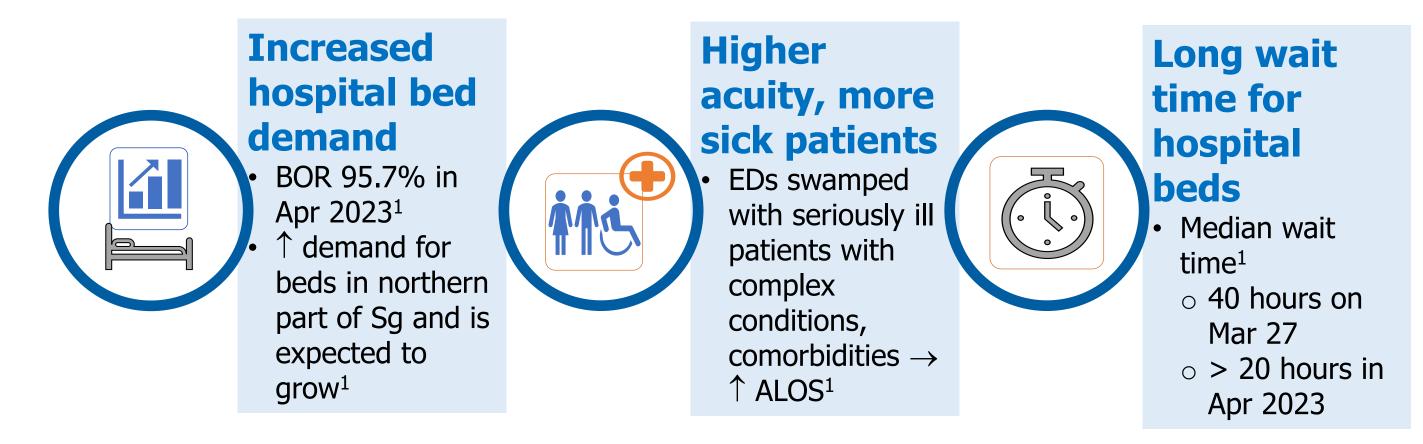


Emergency Ambulatory Surgery (ACES): Bringing Care to Patients' Homes

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Background/Aim

Challenges for healthcare sector:



- Need to focus on meeting future demand "Beyond Hospital to Community"²
- Acute surgical conditions contributes to a significant portion of the GS department workload (2021):
 - ~ 2500 patients/year admitted via the ED
 - ~ 1360 patients (54%) were discharged within 72 hours
- This calls for a paradigm shift in clinical practice and a rethinking of the traditional approach to acute surgical patients with an increased focus on ambulatory care for uncomplicated general surgical conditions → ACES - Ambulatory Care in Emergency Surgery was formed

• AlMs:

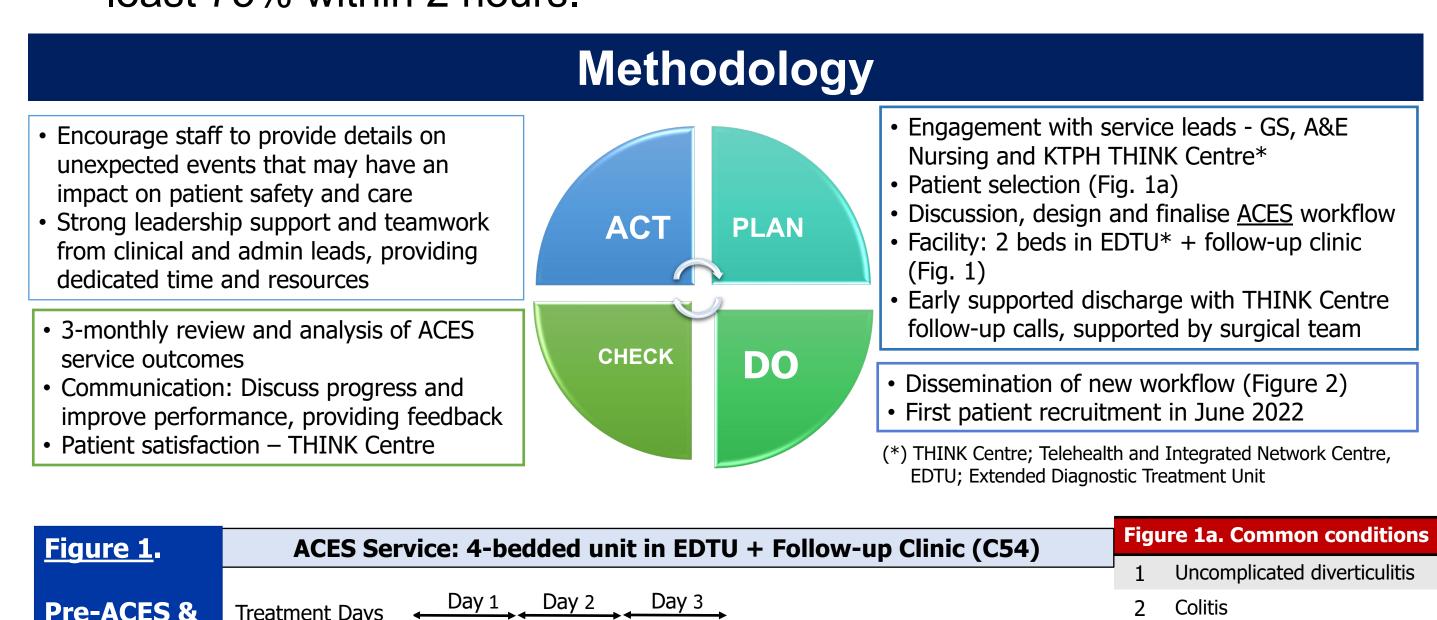
Pre-ACES &

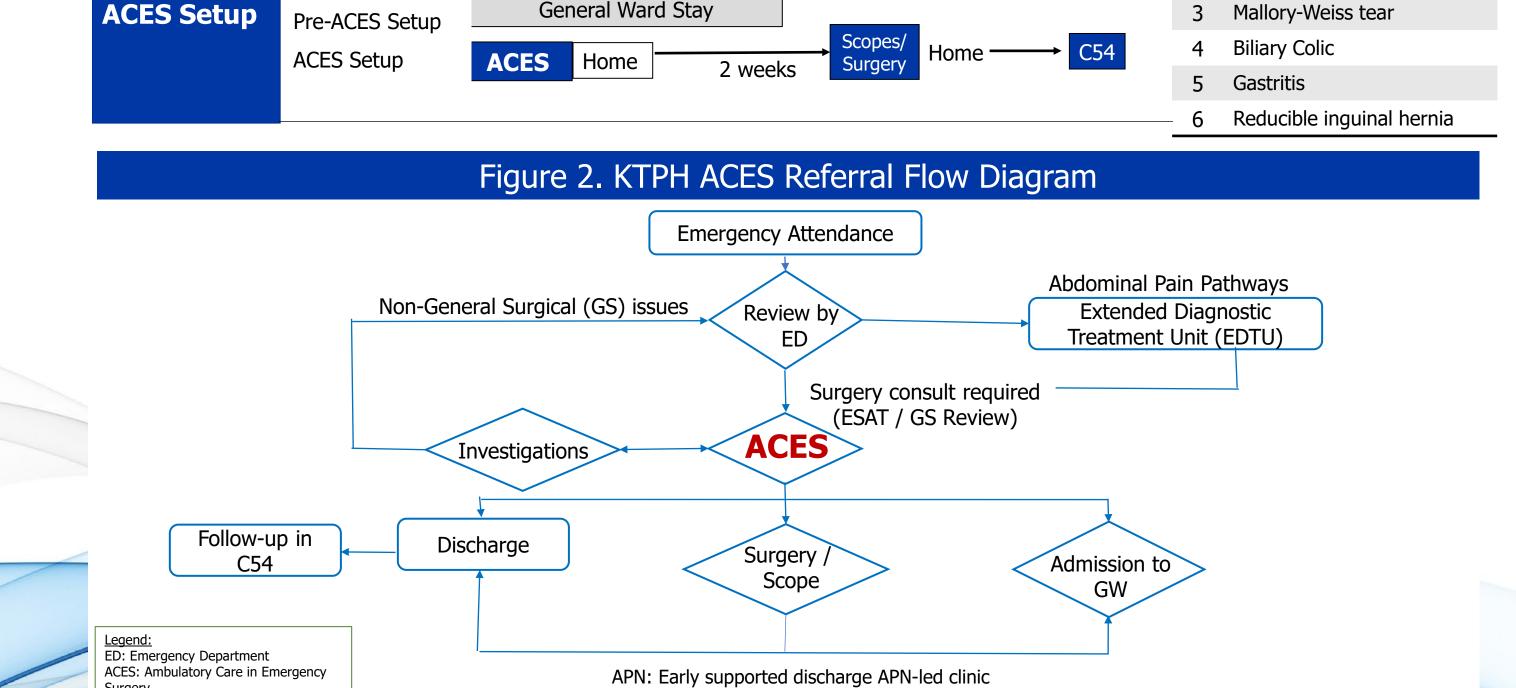
ESAT: Emergency Surgery and Trauma

GS: General Surgery

Treatment Days

- Assess, diagnose and treat patient, with early discharge within 24 hours
- Reduce inpatient emergency surgery admissions: 80% patients to be discharged home from ACES
- Improve overall patient experience: ALL patients to receive senior clinician review with at least 85% reviewed within 4 hours and at least 75% within 2 hours.





General Ward Stay

ACES initiative is a pilot service for the management of acute surgical conditions under the department of GS led by the ESAT team in tandem with ED and KTPH Think Centre

1-2 weeks: Close liaison with ESAT / ACES Consultant

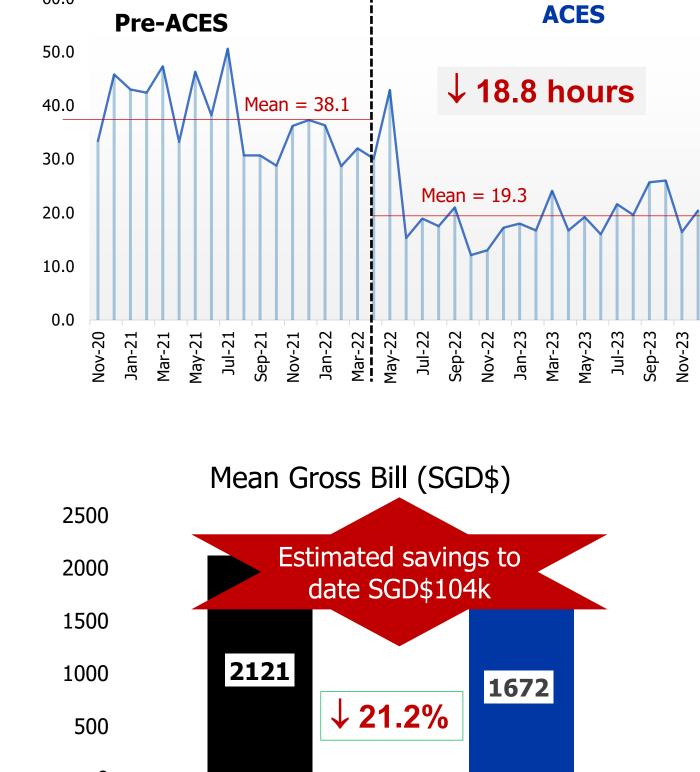
Virtual ward: Call patient 1-3 days after discharge to ensure patient is clinically well (Have dedicated telephone number at discharge so that patient can flag up problems early)

Conclusion

- ACES initiative in KTPH is effective in reducing length of stay, improved patient experience, saved hospital beds and costs through increase in same-day discharge for the selected surgical patients.
- •ACES workflow, the 1st of its kind in local context, has integrated itself within KTPH workflow and become an essential part of the pathway to right site surgical patients to the best possible care.

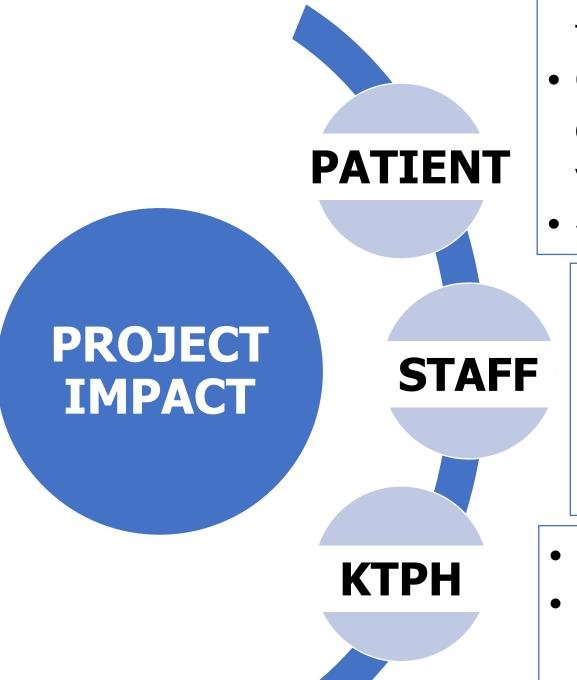
Results & Project Impact 98.3% 84.4% Early Clinical Review by ACES team (hour) Mean Review Review 1.0 hour within 2 within 4 hours hours 100% Senior Clinician Review **Pre-ACES** November 2020 – May 2022, n = 200June 2022 – December 2023, n = 197ACES % Patients with Length of Stay Average Length of Stay (LOS) - hours (LOS) <24H **ACES Pre-ACES Pre-ACES** 50.0 **↓ 18.8 hours** Mean = 38.1





ACES

Operational Resilience & Staff Well-being



 Enhanced patient satisfaction – early access to medical care at reduced cost

Pre-ACES

- Optimised patient experience increase convenience and home care support with virtual telehealth services
- ↓ hospital LOS
- Enhanced teamwork and collaboration early review-diagnose-treat
- No 1 in manpower; role expansion for APN
- Allows health care professionals to treat more patients safely and save more lives
- No ↑ in funding/physical facilities
- 21.2% ↓ in cost per episode of care costs; estimated savings of SGD\$104k to date
- ~ 150 hospital bed days saved to date → bed days saved can be utilised by other patients

Strategies to Sustain

- The ACES model of care is achievable and sustainable:
- it uses existing manpower and physical facilities and
- integrates with existing workflows → improve uptake by clinicians
- •KTPH is an early adopter of this system, being the 1st in Singapore to implement it. It may be used as a basis for other restructured hospitals in Singapore.
- Continuous review/audit of ACES with analysis of patient load, occupancy rates, and areas for improvement.
- Since its inception, ACES has expanded:
- to include other diagnosis such as symptomatic inguinal hernia
- increased bed capacity
- developed information booklet for patient education
- Reference Longer waiting times for beds in some hospitals, but treatment not delayed: MOH. The Straits Times 21 Apr 2023. Accessed on 26 July 2023
- Singapore hospitals trial bringing care to patients' homes. Hospital Management Asia 10 June 202