

## **Project Title**

Introducing Singapore's First Ambulatory Emergency Care (AEC) Service

## **Project Lead and Members**

Project lead: Dr Thofique Adamjee

Project members:

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- Ms Tasmin Teo Ler Min
- Ms Caroline Tan Cheng Ling
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- Ms Lim Hui Yee Esther

## **Organisation(s) Involved**

Khoo Teck Puat Hospital

## **Project Period**

Start date: Sep 2019

Completed date: ongoing

## Aims

To test the local feasibility of this model of care – Ambulatory Emergency Care (AEC), using existing Extended Diagnostic Treatment Unit (EDTU) facilities and billing structure to (a) allow Medisave use and (b) facilitate rapid access to investigations.

The objectives of the AEC service are to:

- Provide rapid assessment and management of selected GM patients referred from the Emergency Room for admission to hospital.
- Provide same day diagnosis and treatment for suitable patients.
- Reduce inpatient admissions and cost.

## Background

See poster appended/below

## Methods

See poster appended/below

## Results

See poster appended/below

## Lessons Learnt

- It has worked well having a small pool of like-minded clinicians running the service rather than tapping on all Internal Medicine clinicians who likely have different risk-tolerance or willingness to work differently.
- Identifying a couple of junior doctors that strongly believe in the value of this service was a huge help as they were proactive and motivated to seek out patients waiting for admission that could be diverted to this service.
- Starting over again, it would be helpful to provide audio-visual/paper-based materials to help explain this novel concept to patients and their loved ones.
- It would have helped to devise a robust way to capture patient experience metrics from the start (this is a key outcome and we have not dug deep enough into it).

- There is an AEC network (UK based) that supports hospitals (including overseas) setting up AEC services – we did not tap into that but it would have saved us time and effort starting from scratch.

## Conclusion

See poster appended/below

## Additional Information

- 2020 National Healthcare Innovation and Productivity (HIP) Best Practice Medal – Care Redesign (*video: <https://bit.ly/367Abqa>*)

The successful launch of the AEC service has demonstrated that acute hospital admissions in Singapore could be reduced safely by diverting patients to AEC. Patients are receptive to AEC since they incur reduced bill sizes and do not need to be unnecessarily admitted (with the risks that entails). If extended to other departments and conditions the potential impact is very large indeed.

The UK National Health Services (NHS) has an extensive directory of evidence based Ambulatory Sensitive conditions that should usually not need hospital admission and we have just scratched the surface of what is possible.

## Project Category

Care & Process Redesign

## Keywords

Care & Process Redesign, Care Continuum, Value Based Care, Efficient Care, Cost Effectiveness, Effective Care, Length of Stay, General Practice, Emergency Medicine, Healthcare Administration, Khoo Teck Puat Hospital, Finance, Medisave

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# Introducing Singapore's First Ambulatory Emergency Care (AEC) Service

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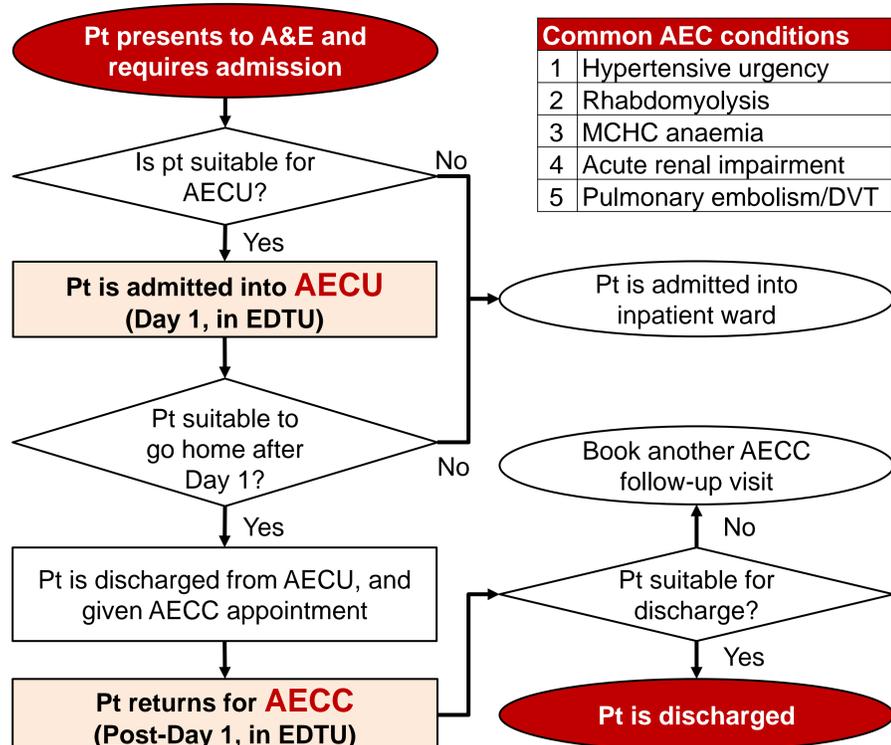
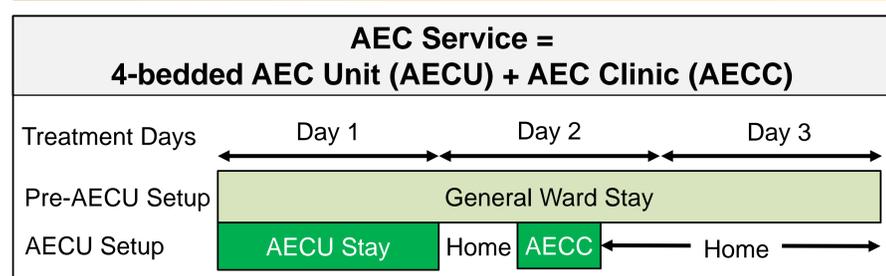
## Background & Aims

The AEC (Ambulatory Emergency Care) service aims to **provide same day assessment and management of selected General Medicine patients** flagged for admission from A&E, **reducing the need for inpatient admissions.**

AEC is well-established in the UK. It is known to reduce acute hospital admissions (by as much as 30%), costs, and improve patient experience. In Singapore, this concept is untested.

The project intended to **test the local feasibility of AEC**, using the Extended Diagnostic Treatment Unit's (EDTU) facilities and billing structure (allows Medisave use for >8 hour stay).

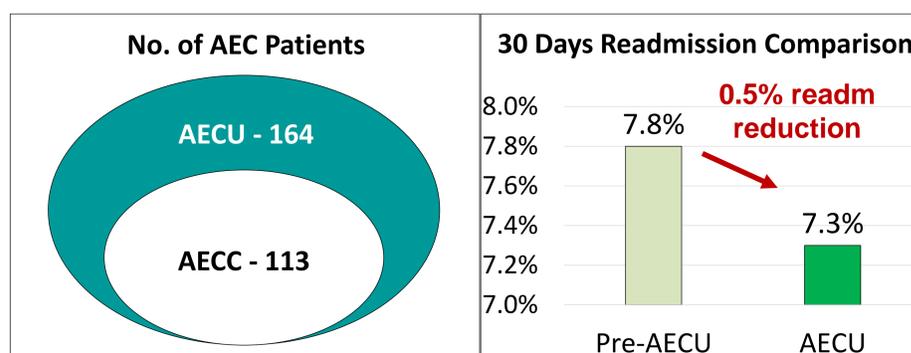
## Methodology



## Results & Project Impact

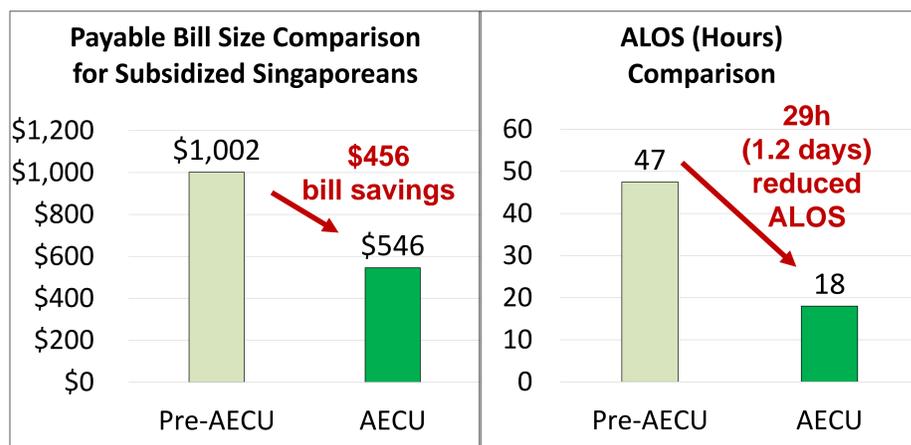
### AEC Service (Sep 2019 to Nov 2020\*)

\*AECU closed from Feb to Oct 2020 due to COVID-19

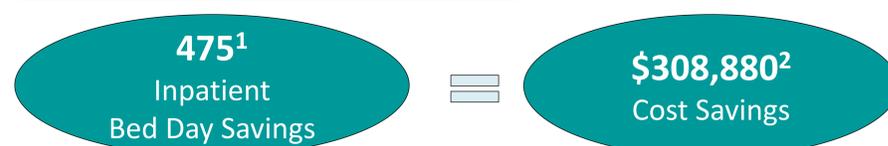


### Cost Savings for Patients (Sep 2019 to Nov 2020\*)

\*AECU closed from Feb to Oct 2020 due to COVID-19



### Projected Annual Cost Savings for Hospital



<sup>1</sup>(120/6\*12) successful AECU cases \* 1.98 pre-AECU ALOS

<sup>2</sup>475 bed day savings \* \$650 daily acute bed day costs (projected)

With the setup of AEC service:

- There is **reduction of unnecessary admissions of short stayers**
- AEC patients get to enjoy **lower bill sizes** and **reduced ALOS**.
- AEC patients get to **continue their daily family, work and personal activities with minimal disruption**.

## Sustainability & Follow-Up

To sustain this project, the team has:

- **Expanded the inclusion criteria** of the AEC service to include additional medical conditions and removed some exclusion criteria.
- **Scaled up** the service through **increasing AECU bed capacity & collaborating with more specialties** (e.g. Dermatology/Neurology).
- Diverted manpower to allow a **dedicated AECU consultant** to manage the AEC service.

In future, we plan to work with the Ambulatory Emergency Care network (UK based organization) for data-driven incremental improvements.

## Conclusion

To summarize, the AEC service helps to:

- Provide **same day diagnosis and treatment** for suitable emergency presentations with no increase in readmissions
- **Reduce patient bill size** significantly.
- Increase bed days saved for KTPH, which may help **the perennial bed crunch situation**.
- Provide **patient centric care** in a timely, safe & cost effective manner.