

## Project Title

Tan Tock Seng Hospital Emergency Department Right Siting to General Practices: GPNext

## Project Lead and Members

Project leads:

- A/Prof David Foo Chee Guan, Clinical Lead, Primary Care, Division for Central Health
- A/Prof Ang Hou, Head, Emergency Department
- Evelyn Tan, Manager, Population Health Office (Community Operations), Division for Central Health

Project members:

- A/Prof Sharon Yeo, Head, Department of Urology
- A/Prof Lee Keng Thiam, Head, Department of Orthopaedic
- A/Prof John A, Head, Department of Respiratory and Critical Care Medicine
- A/Prof Glen Tan, Head, Department of General Surgery
- A/Prof Charles Vu, Senior Consultant, Department of Gastroenterology and Hepatology
- Dr Teong Hui Hwang, Senior Consultant, Department of General Medicine

## Organisation(s) Involved

Tan Tock Seng Hospital, NHG Polyclinics; Primary Care Network under TTSH Community Right Siting Programme

## Project Period

Start date: October 2018

Completed date: ongoing

## Aims

To reduce unnecessary referrals from the Emergency Department (ED) to Specialist Outpatient Clinics, TTSH launched GPNext in October 2018. GPNext is a partnership between the hospital and primary care physicians (PCPs), focused on right-siting of stable ambulatory care from the hospital's ED to PCPs. Patients discharged through GPNext are provided a

window period to escalate their medical condition and return to the hospital's specialist clinic for treatments of further investigation.

## Background

See poster appended/ below

## Methods

See poster appended/ below

## Results

See poster appended/ below

## Lessons Learnt

Instead of investing in new resources and creating new processes, sustainability should be achieved as *GPNext* facilitated existing providers to collaborate and align strengths to address the wastage situation that occur in our SOCs.

For example, recognising that CHAS patients have portable subsidies which can be utilised in GP clinics, *GPNext* pricing model is structured such that patients can leverage on their CHAS subsidies to enjoy affordable outpatient treatment. Simultaneously, diverting patients' demand created a sustainable business for GPs.

Safety net is established to ensure that patients have a channel for escalation should they experience complications after their ED discharge. Trust is also developed with our GPs as they are assured that any clinical concerns can be addressed with the hospital's CoACT. Finally, our primary care will connect seamlessly for patients who require specialist care in TTSH.

With no additional resources invested, *GPNext* operates within a self-sustaining ecosystem that is scalable, and can further benefit patients with other disease profiles.

## Conclusion

GPNext integrates community providers into our hospital's delivery of care so as to provide timely and appropriate care for our patients. GPNext promotes better care as we allow post ED patients to review with a GP promptly, as compared to having to wait for a routine specialist visit. Given the long wait time, patients' motivation to follow through their specialist visit declined and resulted in significant no-show trend. By transiting low-complexity patients who may not turn up for their specialist visits, the hospital can now divert its resources to treat complex patients.

## Additional Information

Since its launch, GPNext was profiled by national media, both television and newspapers. The hospital also dedicated a publication on GPNext to advocate delivery of right care at the right time and place for the population we serve. In 2020, Ministry of Health included GPNext as an official programme funded by 'Outpatient to Community' whereby stable patients were right-sited from acute hospital to community partners for continuity of care; reducing unnecessary demand for hospital specialist services.

[Received NHG Quality Improvement Award 2019 - Service Redesign and Delivery]

## Project Category

Care & Process Redesign

## Keywords

Care & Process Redesign, Quality Improvement, Care Continuum, Acute Care, Primary Care, Community Care, Right Siting, Access to Care, Continuity of Care, Cost Savings, Emergency Medicine, Tan Tock Seng Hospital, GPNext, Ambulatory Cases

## Name and Email of Project Contact Person(s)

Name: Evelyn Tan Si Miao; David Foo Chee Guan

Email: Evelyn\_SM\_Tan@ttsh.com.sg; David\_Foo@ttsh.com.sg



**Adj A/Prof David Foo, Clinical Lead, Primary Care**  
**Dr Ang Hou, Head of Department, Emergency Department**  
**Ms Evelyn Tan, Manager, Community Operations**

### Mission Statement

#### Aim:

To reduce unnecessary referrals from the Emergency Department (ED) to Specialist Outpatient Clinics. GPNext is a partnership between the hospital and primary care physicians (PCPs), focused on right-siting of stable ambulatory care from the hospital's ED to PCPs.

#### Objectives:

- To increase the management of specific minor/low complexity conditions by GPs in the community.
- Reduce unnecessary referrals from ED to SOCs for conditions/ symptoms that can be managed by GPs under this collaboration.
- Decrease number of ED defaulter referrals to SOCs.

### Team Members

	Name	Designation	Department
Team Leaders	Adj A/Prof David Foo Dr Ang Hou Ms. Evelyn Tan	Clinical Lead, Primary Care Head of Department Manager	Community Health Emergency Department Community Health
Team Members	Adj Assoc Prof Lee Keng Thiam Clinical Assoc Prof John A. Adj Assoc Prof Sharon Yeo Adj Asst Prof Glenn Tan Dr. Teoh Hui Hwang Dr. John Chua Ms. Ethel Kan Ms. Rebecca Banu Clinic Managers Operations Manager	Head of Department Head of Department Head of Department Senior Consultant Associate Consultant Senior Manager	Orthopaedic Respiratory & Critical Care Urology General Surgery General Medicine Emergency Department Emergency Department Contact Centre Clinic B1A, 2A, 4A, 5A Clinic B1A, 2A, 4A, 5A
Ex-Members	Ms. Vionna Foong Ms. Hong Qiao En Ms. Xu Mei Shan	Management Associate Management Associate Right-Siting Officer	

### Implementation

GPNext began with targeted approach for ED to collaborate with clinical departments that account for the highest first visit no-show rate:- Urology, General Surgery, Orthopaedic, General Medicine and Respiratory Medicine.

An ideal solution would be transiting stable ambulatory post ED patients that require review to a PCP. In the event that transited patients experience serious complications, our solution should provide an escalation channel for them to get specialists attention as soon as possible. Additionally, PCPs should be provided with timely access to clinical communication with specialist when they have difficulty managing the patient.

#### A) Market Research and GP Engagement:

A focus group was first conducted to solicit GPs' opinions and guiding principles for future actions

#### B) Clinical Decision Guide:

Clinical indicators for ED discharge to primary care and recommended disease management guidelines for primary care were developed by ED and the five clinical departments. 13 clinical pathways were designed.

#### C) Communication Enablers:

TTSH convened the Coordinating Advisory Care Team to support GPs with patient-related case discussion via secured instant communication platform (Annex E). Clinical advisories and patient support system were enhanced so that it forms a safety net for patients should their condition deteriorates. Lastly, the initiative must be clearly elaborated for proper roll out across ED to primary care, and ultimately SOC for managing returned patients.

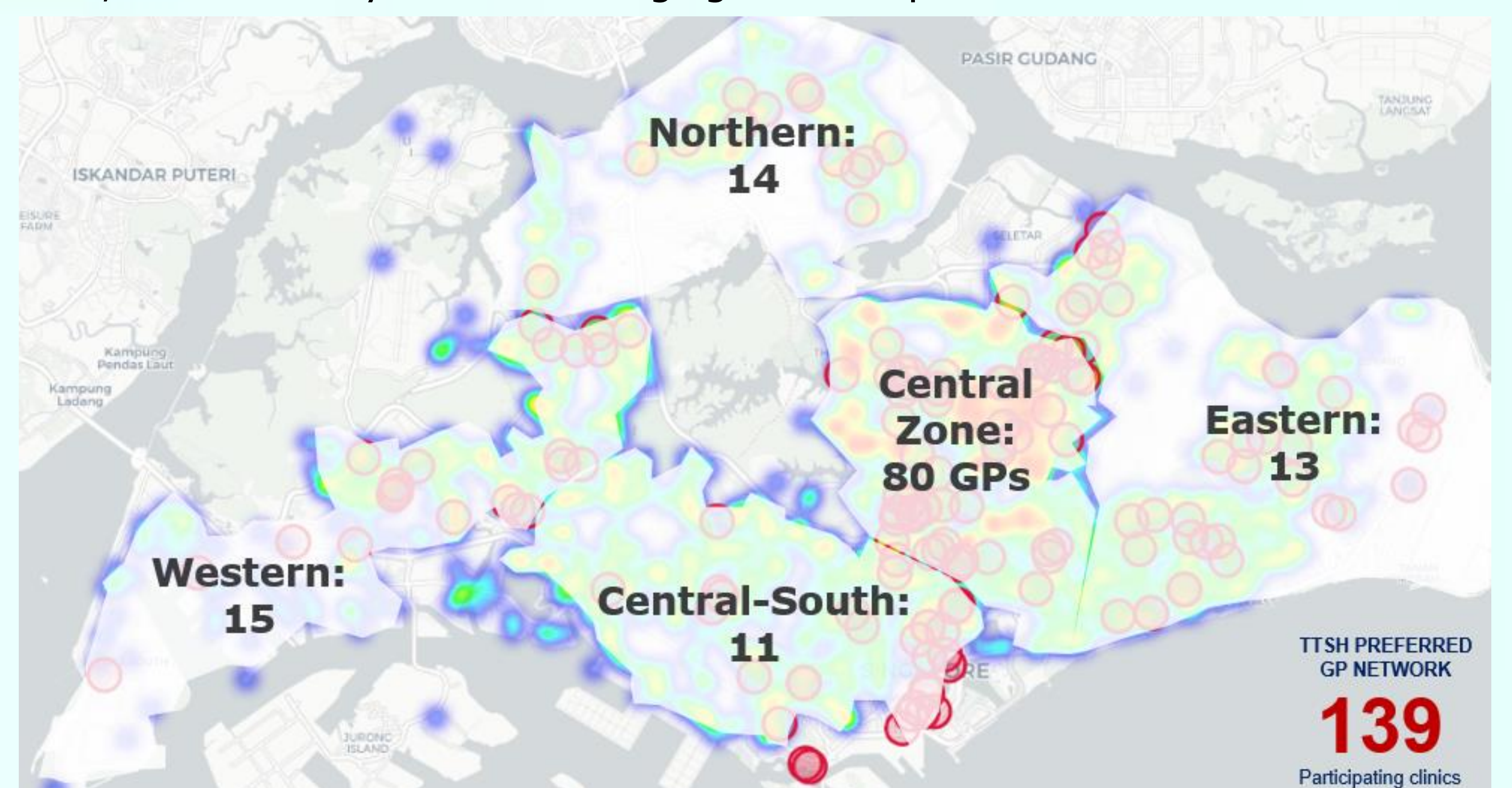


Image B: Geographical Spread of TTSH Preferred GP Network when GPNext Diverted Patients may review their condition with a primary care physician post ED visit.

### Evidence for a Problem Worth Solving

#### No-Show % for Intra-Dept Referral A&E

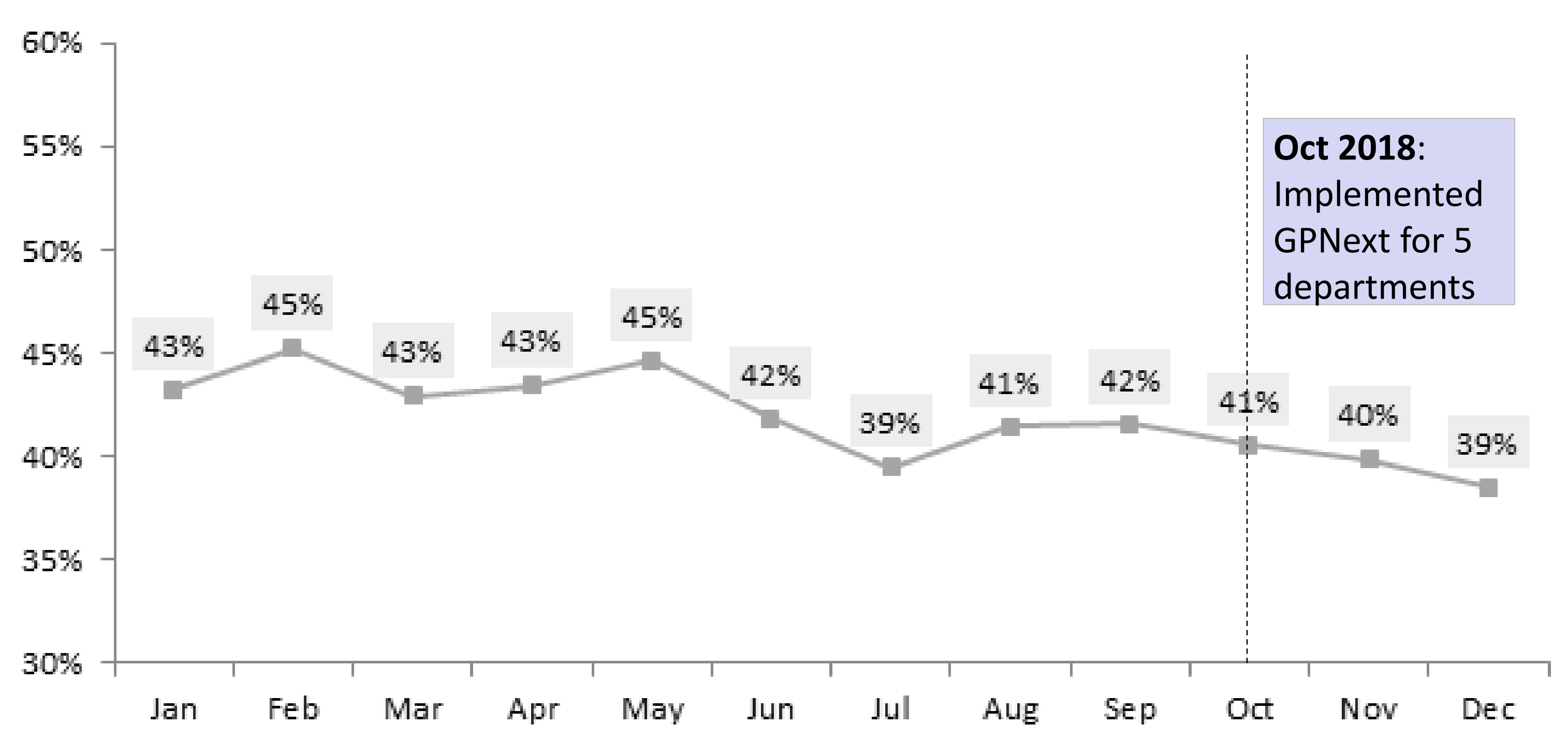


Chart A: No Show Percentage for Intra-Department Referrals from TTSH Ambulatory and Emergency (Before and After GPNext Implementation)

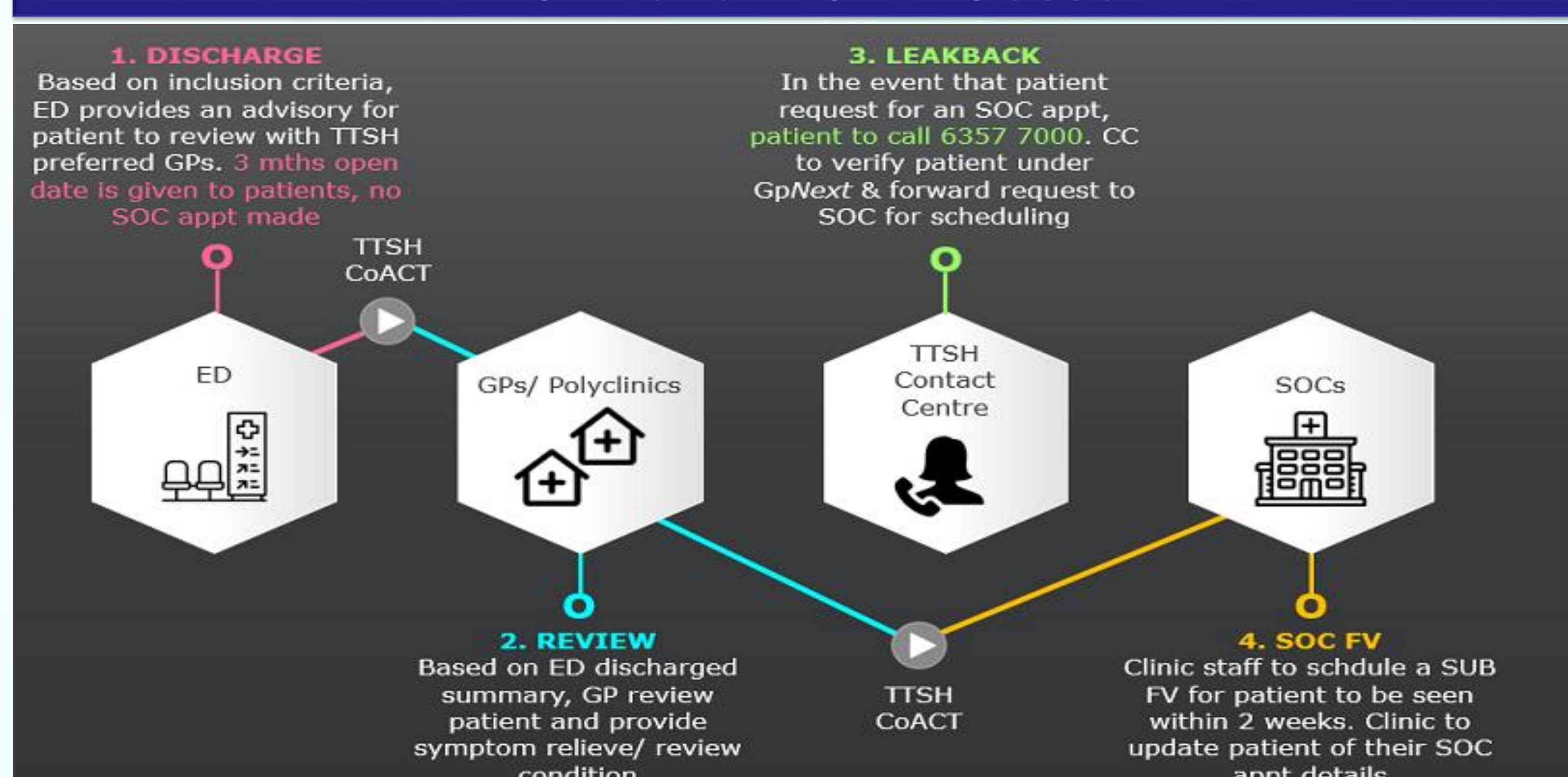
#### High Defaulter Rate from ED Referrals:

TTSH ED is one of the main sources of intra-hospital referral to our hospital's new outpatient appointments. A significant percentage, in fact, close to 50% of ED referrals has contributed to first visit no-show for our clinical departments.

Patients with minor acuity or low complexity medical issue is considered discretionary to the function of SOCs. A substantial portion of these referrals are asymptomatic, hence patients may not turn up for their SOC appointment because their symptom(s) have subsided.

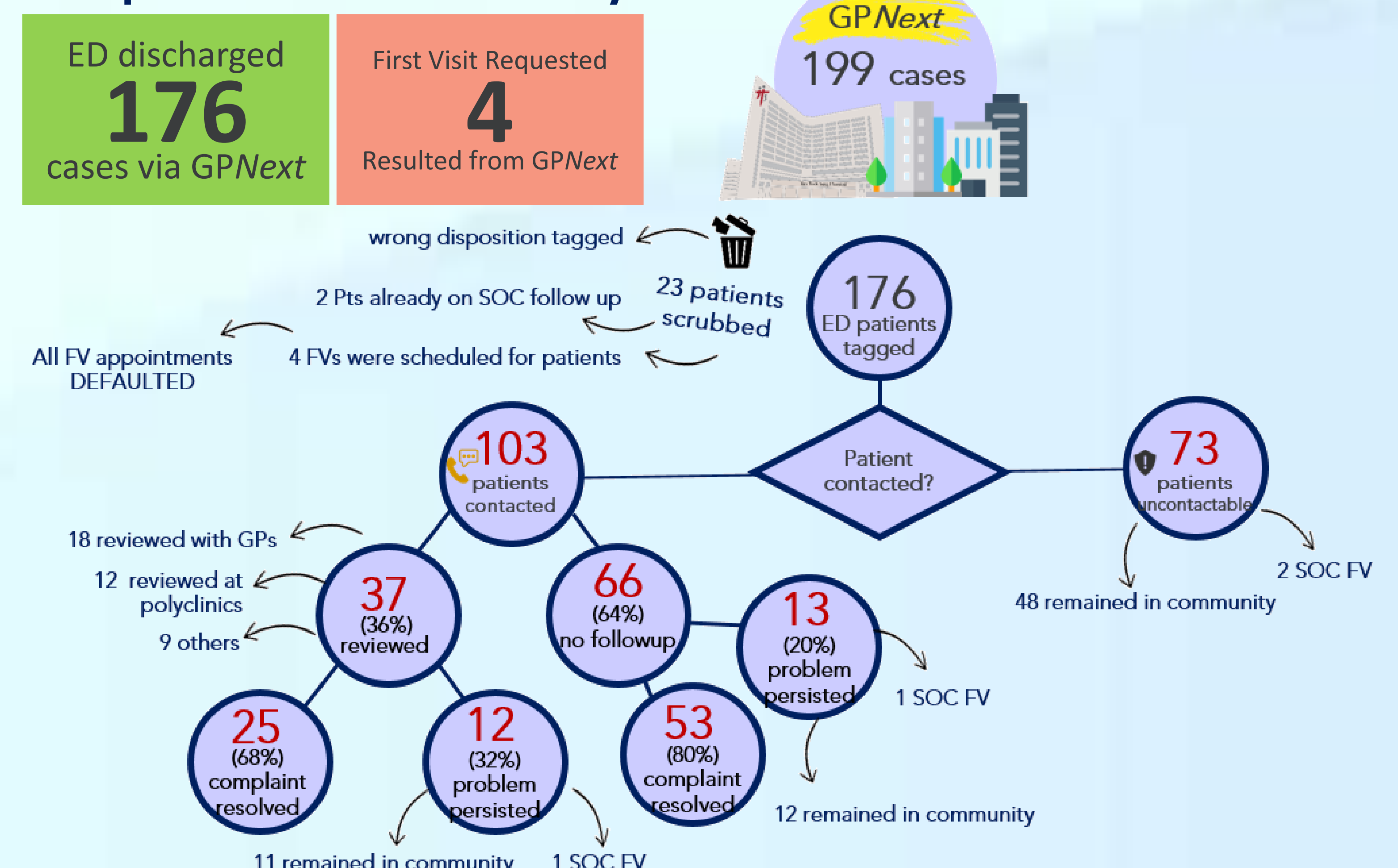
The consequences of this are first visit appointment slots for SOCs not being effectively utilised, leading to longer waiting time for other patients to be seen in SOCs, this ultimately resulted in wastages. Wastes include our hospital resources, physicians and other healthcare practitioners' time. It also includes the opportunity cost for our hospital to treat another patient when one does not turn up for their appointment.

### Flow Chart of Process



### Results (from Acute Hospital to Community Level)

Data period: Oct 18 to February 2019



### Conclusion

- GPNext has shown high **efficacy**.
  - 1/3 of GPNext patients reviewed with Primary Care partners or other community providers
  - 2/3 of GPNext patients do not require follow up due to their complaint were eventually resolved
- GPNext is **safe**.
  - Identified low risk symptoms did not deteriorated after patients' ED visit
- GPNext is an effective collaboration between Emergency Department, SOCs, and Primary Care in reducing wastages and promote system savings for the hospital.

