



Koh Kai Tian, Vicki Tan Kar Ka, Juriah Binte Zabidin, Specialist Clinics Operations

# Improving Patient Flow (Vascular Clinic)

## Aim

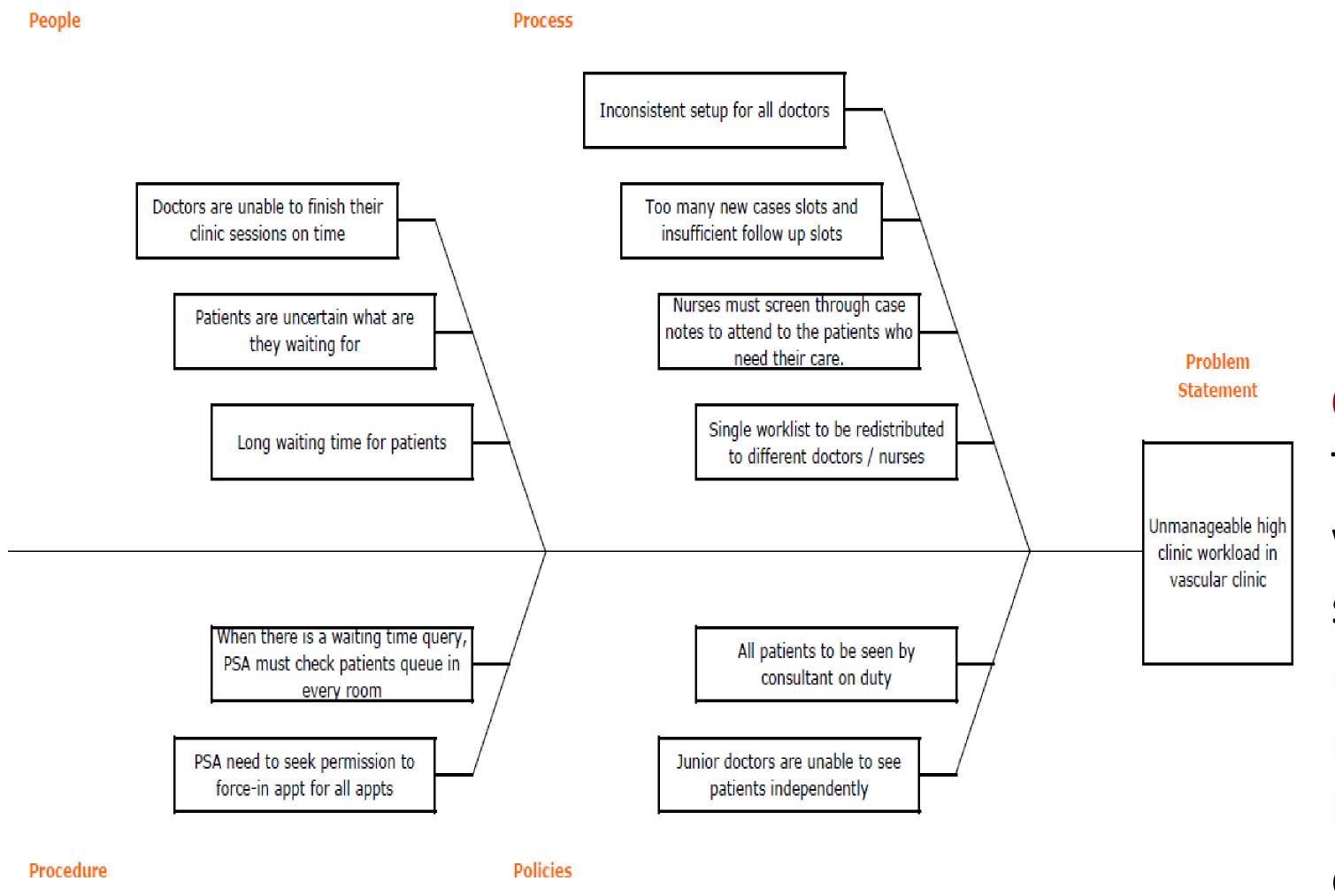
To improve overall patient flow for an overbooked clinic through a review and standardisation of the session's set up across the specialty to meet the actual demand and accommodate the operational workflow in the clinic. This will decongest the clinic, improve staff productivity and improve patient experience.

## **Problem Statement**

- 1. Insufficient FP Slots
  - FP slots are 109% overbooked (Results in high force-in numbers → unmanageable load)
  - Despite overall 85.4% utilisation
- 2. Under-Utilised NC Slots
  - NC slots are only 50.5% used
- 3. Poor Right-Siting of Patients
  - Patient's Q ticket is not reflective of appointment room location due to triaging workflow during session; patient gets redirected by staff

## Methodology

- 1. Voice of the Customer (Seek to understand from stakeholders)
  - Other than high workload, doctors shared that non-critical new cases are booked in.
- 2. Shadow & Observe (On-site observation of operational session workflow)
- 3. Fishbone Diagram (Cause & Effect)



## Results

No	Measures	Before (Jan 15 – Jan 16)	After (Feb 16 – Jul 16)				
Redu	Reduce Congestion: Manageable Workload Per Session						
1	Appropriate NC : FP Ratio	<ul> <li>Set-Up: 1:1.5</li> <li>Booked: 1:3.2</li> <li>Demand exceeds capacity</li> </ul>	<ul> <li>Set-Up: 1:5</li> <li>Booked: 1:5.3</li> <li>✓ Balanced demand &amp; capacity</li> </ul>				
2	BetterSlot Utilisation	<ul> <li>50.5% NC slot utilisation</li> <li>109% FP slot utilisation</li> <li>Overall 85.4% utilisation</li> </ul>	<ul> <li>64.1% NC slot utilisation</li> <li>68.3% FP slot utilisation</li> <li>Overall 67.6% utilisation</li> <li>✓ Better NC slot utilisation</li> <li>✓ Less overbooked clinic due to sufficient FP slots</li> <li>✓ Allow greater slot buffer to attend to urgent cases</li> </ul>				
3	Workload Productivity	Extrapolation to 1 year: 5578 cases  Less cases seen even though there is a higher capacity; demand not always met	Extrapolation to 1 year: 7608 cases (36% increase)  More cases can be seen with reduced capacity which still meets demand				

No	Measures	Before (Jan 15 – Jan 16)	After (Feb 16 – Jul 16)				
Redu	Reduce Congestion: Timely & Accessible Care						
4	Acceptable Lead Time < 60 Days (MOH Standard of Care)	<ul> <li>PTE: Av. 6.2 days</li> <li>SUB: Av. 8.7 days</li> <li>Overall: Av. 8.5 days</li> </ul>	<ul> <li>✓ PTE: Av 6.0 days</li> <li>SUB: Av 38.7 days</li> <li>Overall: Av 36.5 days</li> </ul>				
5	Compliance to FP TCU Instructions	<ul> <li>1-4 Weeks: 47%</li> <li>5-8 Weeks: 26%</li> <li>9-12 Weeks: 14%</li> <li>&gt; 12 Weeks: 13%</li> </ul>	<ul> <li>1-4 Weeks: 49%</li> <li>5-8 Weeks: 31%</li> <li>9-12 Weeks: 11%</li> <li>&gt; 12 Weeks: 9%</li> <li>✓ Changes maintained the observed trend in % of patients who receive regular FP care</li> </ul>				
6	Prioritisation of Clinically Time- Sensitive NC	<ul> <li>1 sub-spec VAS General that caters to all types of patient condition</li> </ul>	<ul> <li>✓ 2 defined sub-spec to cater to critical and less critical cases</li> <li>✓ Development of referral guidelines for appointment making staff</li> </ul>				

No	Measures	Before (Jan 15 – Jan 16)	After (Feb 16 – Jul 16)					
Impr	Improved Patient Experience / Staff Productivity							
7	Change in Operational Workflow	<ul> <li>1 doctor resource listing</li> <li>Triage when patient turns up for appointment → Additional task which takes up time during a busy clinic session</li> <li>Patient confusion due to mismatch info on Q ticket and actual room seen</li> <li>Long waiting time due to very overbooked clinic</li> <li>Poor patient experience</li> </ul>	<ul> <li>2 differentiated resource listing to pre-triage cases</li> <li>✓ Patient are registered directly to the triaged room</li> <li>✓ Q ticket reflects the right room for patients</li> <li>✓ Reduced confusion</li> <li>✓ Nurses need not filter cases which provides better productivity and reduce unnecessary work</li> <li>✓ Overall shorter waiting time for patients</li> <li>✓ Better patient experience</li> </ul>					

## Conclusion

The changes made a positive difference to the session workload for the doctors, which improved the specialty's lead-time and appointment waiting time. It reduced congestion, improved patient experience and reduced triaging efforts from staff. Overall, the changes benefitted the staff and patients in both workload and experience.