

CHI Learning & Development (CHILD) System

Project Title

Sustainability Phase: Transforming Hindrances to Opportunities & Resources (THOR)

Project Lead and Members

Project lead: Dr Don Pek Chern Kuok

Project members: Dr Wong Wan Yi, Dr Jacob Chin Yu Hang, Dr Kwok Jian Wah, Ms Pauline Gan Seok Choon, Ms Alicia Chang Sook Ping, Mr Ryan Tay Hsiung Jren, Ms Angela Ang Bee Peng, Ms Chua Ming Shan, Ms Ruby Cheong Sok Yee, Mr Darius Seow Zhi Wei

Organisation(s) Involved

Tan Tock Seng Hospital

Healthcare Family Group(s) Involved in this Project

Healthcare Administration, Medical, Nursing

Applicable Specialty or Discipline

Ophthalmology, PACE

Project Period

Start date: 04 June 2018

Completed date: 05 January 2020

Aims

Improving the percentage of live listed patients at TTSH Day Surgery Operating
Theatre and NHG 1-Health from 31% to 100% over a sustained period

- 1. Live Listed Patients: Patient confirms operation date on same day after seeing doctor
- 2. Cohort of Patients:
- Inclusion Criteria: TTSH subsidised cataract patients
- Exclusion Criteria: Non-cataract surgeries



CHI Learning & Development (CHILD) System

Project Attachment

See poster attached/below

Background

See poster attached/below

Methods

See poster attached/below

Results

See poster attached/below

Lessons Learnt

- 1. CPIP is elegant tool to identify the crux to a complex process
- 2. Given enough manpower, money and time, only the symptom of an underlying problem can be solved, not the problem itself.
- 3. Changing upstream processes have big impact on downstream systems

Conclusion

See poster attached/below

Additional Information

Accorded the NHG Quality Day 2021 (Category A: Improving and Sustaining Quality & Safety) Best Award

Project Category

Care & Process Redesign

Quality Improvement, Job Effectiveness

Technology



CHI Learning & Development (CHILD) System

Digitalisation

Keywords

Cataract Surgery, PACE, Live listing

Name and Email of Project Contact Person(s)

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SUSTAINABILITY PHASE: TRANSFORMING HINDRANCES TO OPPORTUNITIES & RESOURCES (THOR)



Adding years of healthy life

Dr Don, Pek Chern Kuok Department of Ophthalmology

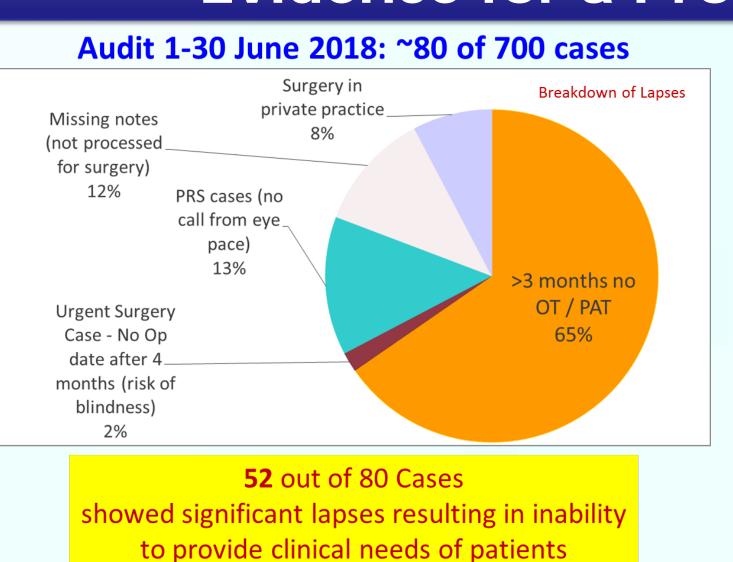
Mission Statement

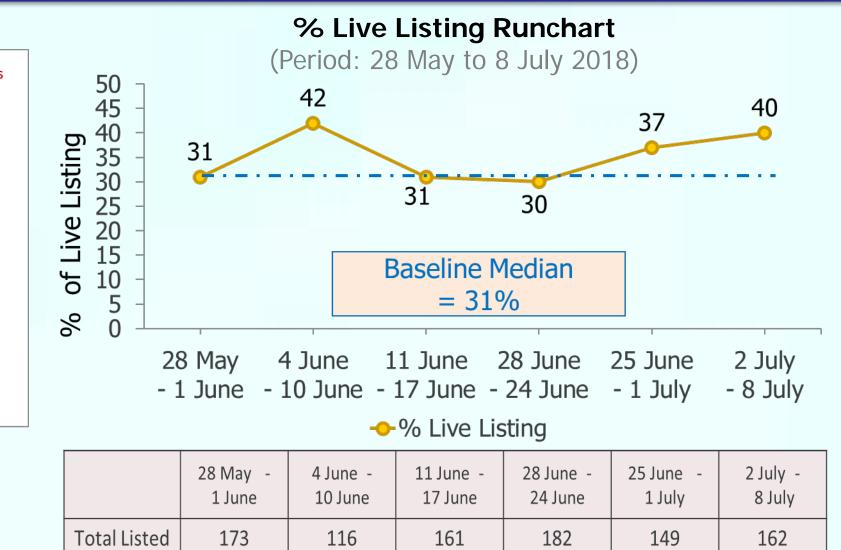
Improving the percentage of live listed patients at TTSH Day Surgery Operating Theatre and NHG 1-Health from 31% to 100% over a sustained period

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Team Members			
Role	Name	Designation	
Team Leader	Dr Don Pek Chern Kuok	TTSH Eye Senior Consultant, CIC Eye PACE Director NHG 1-Health, Eye	
Team Members	Dr Wong Wan Yi	TTSH Anaesthesia Consultant	
	Dr Jacob Chin Yu Hang	TTSH Eye Associate Consultant (EMR)	
	Dr Kwok Jian Wah	TTSH Eye PACE Resident Physician	
	Ms Pauline Gan Seok Choon	TTSH Eye Admin Director	
	Ms Alicia Chang Sook Ping	TTSH Operating Theatre Nursing Manager	
	Mr Ryan Tay Hsiung Jren	TTSH Senior Optometrist (Roster)	
	Ms Angela Ang Bee Peng	TTSH Eye PSA Executive (Roster)	
	Ms Chua Ming Shan	TTSH Eye PSA Supervisor	
	Ms Ruby Cheong Sok Yee	TTSH Eye PACE Nurse Screening	
	Mr Darius Seow Zhi Wei	TTSH Eye Clinic + PACE Phone Listing	
	Patients and NOK	Via Survey	
Sponsor	Adj A/Prof Vernon Yong Khet Yau, TTSH Eye Head of Department		
Mentor	Adj A/Prof Tai Hwei Yee, NHG Group Chief Quality Officer		

Evidence for a Problem Worth Solving





Flow Chart of Process PT consults, signs consent **Failed** Agreed Care Plan Cases Wait List + Backlog = all patients **Live Listing** Backlog awaiting Phone listing Live Listing = Same day book OT date + PAT date + FC **Phone Listing** PAT FC* Biometry Phone Listing = Call patient PAT = Clerking / Referral To book OT date + PAT date to PACE or OPD e.g. cardio 6/52 from consult date) FC* = Financial Counselling **Patient arrives 2/52 from Op Done for phone listing date Biometry = Eye measurements for lens calculation Surgery NHG 1-Health TTSH DSOT

<u>Abbreviation</u>: PT = Patient; PAT = Pre Admission Test; FC = Financial Counselling; OT = Operating Theatre; OPD = Outpatient Department PACE = Pre-Admission Counselling and Evaluation; Cardio = Cardiology

process to list

and prioritise

given out by healthcare team

Process

inefficiency

PACE PSA

related to O7 booking

OTSS

IT System

Cause and Effect Diagram Clinic PSA automatically put **Biometry Process** a nurse screener should see in a Clinic Process patient on wait lists Insufficient clerking slots fo Insufficient clerking | screening >3Hr if opt for Live Listing adhoc cases RP practice is to requires more work limit no. of adhoc Not all nurses certifiéd to do MO is not familia with Eye PACE practices by EYE PACE IC ASA3 clerking with guidelines preferences No regular review & Listing surgeons not No review of clerking Cataract streaming not familiar with downstream processes since Year Inappropriate cataracts No regular review listed by Listing Doctor on number of Doctor | Surgeon Clerking workflow is too complicated Clerking too biometry slots Chooses reminded by Eye PACE long by MO Underperformed Live Listing Unable to book more Takes a long time to train at TTSH DSOT and cases if there are counter staff for eye pace conducted by DS NHG 1-Health not applicable for Physical notes Ophthalmology Lack of manpower phone calls, email, live System limitation due to fixed during MC cataract surgical times Eye PACE PSA (Time locked by DSI Ops unfamiliar with OTSS PSA roles No one is familiar. ercome existing bugs with PAT# Insufficient patients interface is Too many cases need Can only book for No clear avenues to shifting (ie. time away consultants, will erase manage last minute from live listing) data when booked Eye PACE slots under independent based on patient Atrium PSA does not help with and paste, only preference phone listing when free explained by PACE PSA supervisor healthcare Lapse in the Extra effort and time are

needed to rectify error (eg. No culture of feedback

incorrect listing criteria / delegation or escalation

Too much time taken to find

available OT slot

check doctor notes

by PACE PSA to process Live Listing Phone Listing takes time

away from live listing

Pareto Chart Cause of Underperformed Live Listing at Cause 15 No Eye PACE OT Coordinator No. of TTSH Day Surgery Operating Theatre & NHG 1-Health Cumulative Percentage No recent review on agreed cataract numbers between HOD and Surgeons No harmonization of PAT | Biometry | Financial Counselling | Clerking | Listing Slots No measures to improve patient's knowledge of NHG 1-Health Decant Cause 13 Insufficient leadership from PACE nursing supervisor Cause 10 Feedback to HOD regarding surgeon preferences No enforcement of correct listing practices by Eye PACE In-Charge Cause 12 Insufficient leadership from PACE PSA supervisor Cause Cause Cause Cause Cause Cause Cause No feedback to HOD regarding behaviour of Cause 6 individual staff

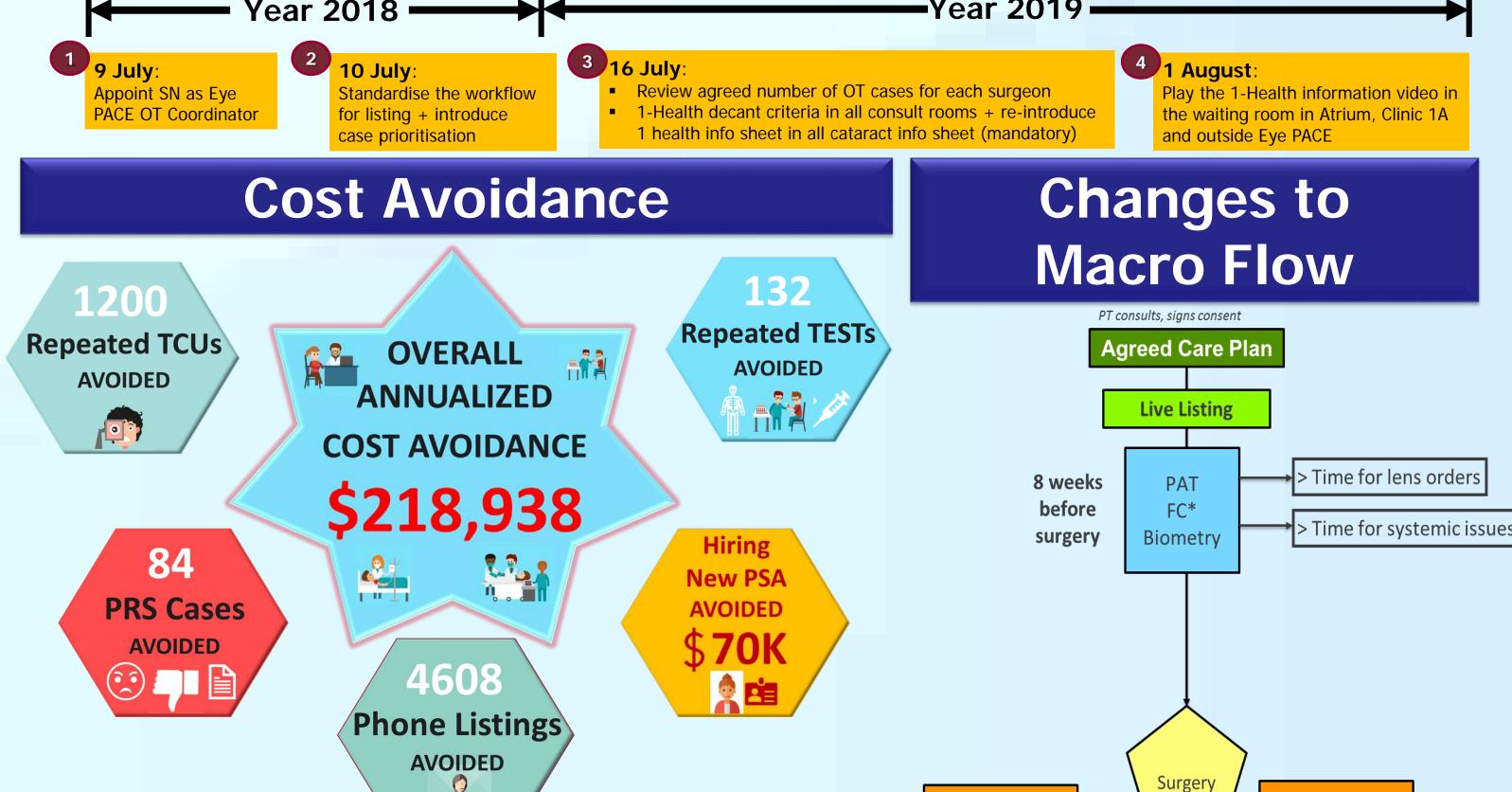
Implementation			
Root Cause	Intervention	Date	
15) No Eye PACE OT Coordinator	Train Volunteer Staff Nurse to coordinate PSA Listing Team to Optimise Underused OT Slots	9 Jul	
9) No recent review on agreed cataract numbers between HOD & Surgeons	Obtained agreement of all surgeons to increase the number of surgery slots	16 Jul	
3) No harmonization of PAT Biometry Financial	1. Developed Standard Operating Procedure to orchestrate the expected series of sequential tasks	10 Jul	
Counselling Clerking Listing Slots	2. Harmonised Number of required time-based sessions from Biometry to PAT and Clerking Slots	16 Jul	
	3. Created Phone / Live Listing Script to increase awareness of NHG 1- Health for patients and to ensure correct cases were matched to the correct operating theatres by staff	1 Aug	
	4. Created One-Way Chat Group to notify all Room Assisting PSAs of the expected waiting time at Eye PACE 5. Introduced Open Door Concept at Financial Counselling Room giving	17 Nov	
	PSAs better visibility of the queue		
7) No measures to improve patient's knowledge of NHG 1-Health Decant	1.Placed Posters on Compliance to Cataract Listing & NHG 1-Health Decant Criteria in every Consult Room. Provided Email Feedback on Failure of Compliance.	16 Jul	
	2. Worked with TTSH Facilities to allow Screening of NHG 1-Health Video to all 27 television screens throughout Eye Clinics	1 Aug	

Results

Period: Jun 2018 to Dec 2019 80% 70% 60% Pre-Intervention Median = **31%** Post-Intervention Median = 100% --- % Live Listed (LL) --- Median Live Listed

Percentage of Live Listed Patients at TTSH Day Surgery Operating Theatre & NHG 1-Health

23-Jul-13
23-Jul-13
23-Jul-13
30-Jul-13
30-Sep-18
11-Mar-13
12-Nov-18
12-Nov-18
12-Nov-18
12-Nov-18
12-Nov-18
12-Nov-18
13-May-13
11-Mar-13
11-Nov-18
11-Nov **Sustainability Phase** 6 months -Year 2019 -2 10 July: 9 July: 3 16 July: 4 1 August: Appoint SN as Eye PACE OT Coordinator Review agreed number of OT cases for each surgeon Play the 1-Health information video in Standardise the workflow 1-Health decant criteria in all consult rooms + re-introduce the waiting room in Atrium, Clinic 1A for listing + introduce 1 health info sheet in all cataract info sheet (mandatory) and outside Eye PACE case prioritisation



Lessons Learnt

TTSH DSOT

NHG 1-Health

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Strategies to Sustain

- 1. Monitor efficiency of Eye PACE using statistics e.g. number of backlog, number of free slots, percentage of OT utilization, number of failed cases.
- 2. Compliance = SOP for reference for complex process + teaching
- 3. Create group goals + healthy work culture
- 4. "The goal of EYE PACE is to restore vision"