SDA Optimisation eliminating the "need" for House Officer deployment on Surgery Day

Singapore Healthcare Management 2019

A/Prof Chew Min Hoe

Dr Chua Hui Wen, Ms Chia Soon Noi, Ms Ng Siok Peng, Ms Nazeemah, Ms Wong Wan Chi & Mr Aven Ng



Sengkang General Hospital

SingHealth

Background	Interventions / Initiatives
The Same Day Admission (SDA) ward performs pre-op checks for all SDA and	<u>PDSA-1</u>
Day Surgery (DS) patients. On an average, SDA ward may see up to 25-30	(1)Elimination of HO Assessment on Surgery Day
patients, amounting to 75% of the average daily surgery load. The efficiency of	a. Implement the SDA pre-clerk note for primary surgical team to put up
preparing patients prior to surgery will prevent delays to the Operating Theatre	(within 72hrs) <i>prior</i> to the surgery.
schedule. Currently, the pre-op assessment requires an average of more than	h Implement on SDA checklist where SDA nurses could make reference to

schedule. Currently, the pre-op assessment requires an average of more than 60min per patient. Streamlining the processes in SDA will optimise clinical manpower deployment and improve patient experience.

Current State

Process flow of pre-op SDA / DS patients:

	10mins			5mins			15mins	
	1. Patient turns up		2. Patient v			3. SDA Nu		
Start	at SO2/SO3 for		called to	waiting		patient to	consult	
St	registration		area pending	pre op		room to	perform	
			assessment			assessment		
					I			
	20mins			15mins			5mins	
	6. HO arrives, nurse		5. Patient	exits		4. SDA Nu	rse calls	
	calls patient into		consult room	, await		for discipline	e HO	
	consult room for	•	for HO at	waiting	•		•	
	assessment		area					
		I						
	5mins			5mins			5mins	
	7. HO assesses		8. SDA	Nurse		9. OT Nurse	e fetches	
	patient, then creates		informs OT N	urse to		patient for c	р	ц.
,	OT chit		fetch patient					End

b. Implement an SDA checklist where SDA nurses could make reference to the pre-clerk note to assess patient.

(2) Elimination of OT Chit Creation by HO

a. Develop an excel computation system to auto-populate barcodes replacing OT chits.

PDSA-2

(3) Reiteration of new processes to all stakeholders

SDA Pre Clerk Note in SCM

	Sections 0	Copy Ferward	🙀 Refer to Note 🐐 Preview • 🍸 Modify Template 🔏 Astronym Expansion 👘 💠 >> >)			
General Information		Care Team				
	Problem List Manager	Consultant in Charge				
C Date	Investigations	Specially				
29 - Nove	Medication Reconciliation	Clerked by	Г Mo			
Time:	▶ Plan	Hanned Admission a 1994 - 200 Q				
15:12		Problem List Manager	ier			
Authored By		.aundi Health Issue	C Laurch Problem List Manager C Rafresh			
# Mo		System (A-Z)	Cardiossolar. C'Endocrine. C'Estrointetrial. C'Harmstological. C'Hregumentaly C'Musculosselatal. C'Nurvology. C'Ranallurological. C'Reproductive. C'Repiratory. C'Ancer C'Diognosis Search C'Incondure Search C'Diagrafi C'Laundh Dir Entry.			
Source:		Ourrent Selection				
		Code				
-						

SDA Checklist

SDA Checklist			
Primary Team in Charge			
Any recent Upper Respiratory Tract Infection symptoms (URTI)?	Fever	Yes Maximum Temp Duration	_
(excluding chronic symptoms)	Cough	Yes Duration	No
	Phiegm	Yes Colour Duration	No
	Runny Nose	Yes Duration	No
	Sore Throat	Yes Duration	No
	If any of the above is o OT that the patient is i		t the Anaesthesia MO of ti
Antiplatelets / Anticoaguiants	Yes, did patient stop de		stopped forday tead Primary Team MO to revi
Consent (Surgical) Validity	Yes No Reason If No, please co	intact the Primary Team I	IO to review.
Consent (Anaesthesia) Validity	Yes No Reason If No, please co	ntact the Anaesthesia M	O of the flisted" OT to revie
Other concerns	Yes No If Yes, please refer to nursing notes & contact Primary Team I/O to review.		
Has there been any change in the condition since the consultation with the surgeon?	Yes	No the Primary Team MO to	
Site Marking (If applicable) (To be performed in induction room)	Team Doctor Nam	e / Signature:	

Barcoded Charge Form

Sing	gHealth				·1
0	T Services Const	umable Charge Fo		- Fo	
OR	Class	Ward/Bed	Service Date	8118303320D	
				For T-Doc	

Implemented electronic

This is a Computer General lease call 95013303 if you encourt

Checklist after 11 May 2019

ame of SDA staff / Signature / Date /Tim

Average Total Process Time: <u>85min</u>

Root Cause Analysis

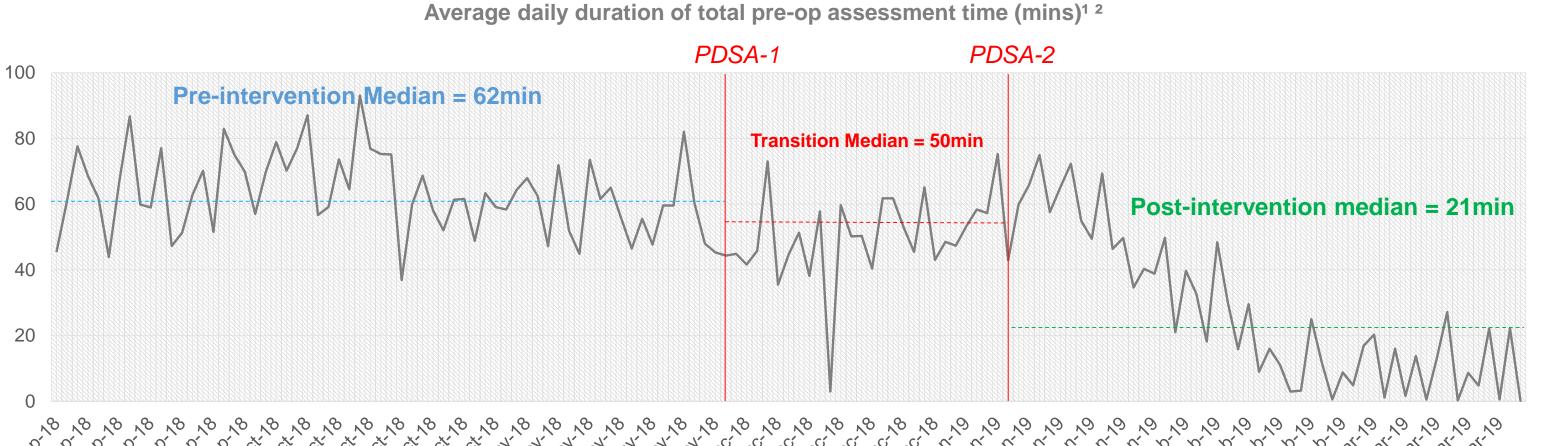
The current process flow had various interdependencies resulting in unnecessary delays and inefficiencies. Process 4, 5, 6 and 7 circled in red below are the critical "delay points"

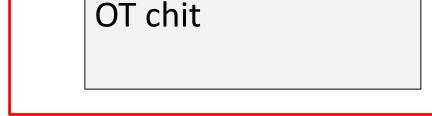
		10mins		5mins		15mins	_
	ب	1. Patient turns up at SO2/SO3 for		2. Patient will be called to waiting		3. SDA Nurse calls patient to consult	
	Start	registration		area pending pre op		room to perform	
				assessment		assessment	
		20mins		15mins		5mins	
	6. HO arrives, nurse			5. Patient exits		4. SDA Nurse calls	
		calls patient into		consult room, await		for discipline HO	
	consult room for			for HO at waiting			
assessment			area				
							
		5mins		5mins	_	5mins	~
		7. HO assesses		8. SDA Nurse		9. OT Nurse fetches	
		patient, then creates		informs OT Nurse to		patient for op	E
	F						

Implementation Plan

S/N	Implementation Plan	Timeline	Implemented by:
1	Design and implementation of the SDA pre clerk checklist	08 Oct – 26 Oct 19	Dr Chua Hui Wen
2	Design and implementation of the Nursing SDA checklist	15 Oct – 26 Oct 19	NC Nazeemah
3	Design and implementation of the barcoded charge form system	05 Nov – 09 Nov 19	Aven Ng
4	Seeking endorsement and approval from all stakeholders	12 Nov – 23 Nov 19	A/Prof Chew Min Hoe
5	Implementation of PDSA-1	3 Dec 19	All
6	Implementation of PDSA-2	14 Jan 19	All

Results / Follow up





fetch patient

Q

Key Delay Factors:

1. Long Wait for HO's arrival at SDA

• HO is preoccupied with ward rounds and/or other clinical duties.

2. Bottleneck at HO's Assessment

- HO's assessment can only be done after Nurse's assessment.
- There is only 1 HO to assess multiple patients on the same day.

3. Overhead in OT Chit Creation by HO

Goals / Targets

To reduce average total pre-op assessment time by 50% from 62min to less than 30min within 2 months.

¹Data source: RTLS data & OTM data.

²Method: Duration based on min of start consult time to max of end consult time, error data of duration >150mins excluded, consult duration after surgery start time excluded.

Initial rollout did not attain 100% awareness of new processes by staff, hence the results showed less than 20% reduction in total pre-op assessment time. After PDSA-2 was implemented, there was significant improvement of **more** than 65% reduction in total pre-op assessment time.

With the elimination of HO assessment on surgery day, the clinician manpower requirement is streamlined and the respective surgical teams can better redeploy their limited HO resources to fulfil other clinical duties.