

Increasing the Rate of Advance Care Plan (ACP) **Completion Among Palliative Medicine Inpatients** Dr Ho Si Yin **Department of Palliative Medicine**



Adding years of healthy life

Mission Statement

To improve the rate of new Advance Care Plan completion among Palliative Medicine inpatients from 4.9% to 40% (stretch goal: 50%) over 6 months

Eligibility criteria:

- Inpatients under Department of Palliative Medicine
- No prior ACP done

Exclusion criteria:

Patients under Department of Palliative Medicine for 3 days or less

Team Members					
	NameDesignationDepart				
Team Leader	Dr Ho Si Yin	Consultant	Palliative Medicine		
Team	Dr Ang Shih-Ling	Principal Resident Physician	Palliative Medicine		
Members	Ms Chia Gerk Sin	Advanced Practice Nurse	Nursing		
	Ms Shen Feifei	Assistant Nurse Clinician	Nursing		
	Ms Lynnette Ng Shi Quan	Senior Medical Social Worker	Care and Counselling		
Sponsor	Adj Asst Prof Neo Han Yee (HOD, Department of Palliative Medicine)				
Mentors	Adj A/Prof Julie George & Ms Ng Yiting				

Pareto Chart

Top Root Causes of Low ACP Completion Rate Among Palliative Medicine Inpatients



Cause A	No organized system to initiate ACP		
Cause B	Goals of care discussion deemed sufficient		
Cause C	Inadequate staff knowledge about ACP		
Cause D	No protected time		
Cause E	Patient lacks understanding of ACP		
Cause F	Extent of care form is in place		
Cause G	Cause G Inadequate staff training in end-of-life discussions		
Cause H	Family not accepting		

Evidence for a Problem Worth Solving

Internationa	al Literature	Local Literature		
Impact on Clinical Outcomes	Impact on Resource Utilisation	Most patients do not express care preferences	Discrepancies in end-of- life decisions between patients and surrogates in	
 End-of-life wishes more likely to be known and followed Family members had less stress, anxiety and 	 Less likely to undergo ventilation, resuscitation, or die in ICU Lower healthcare costs at end of 	<u>Caregivers feel that ACP is</u> <u>important</u> – respects autonomy, reduces burden in decision-making	a third of cases Low awareness, but <u>after</u> <u>education, 60% were</u> <u>willing to do ACP</u>	
 depression Higher patient and family satisfaction 	 life Increased hospice and palliative care use 	<u>After ACP, s</u> was helpful a prepared healthcare	>95% felt it and felt more to make e decisions	

Dhug Latal	End of life oor	a in the genera	I words of a S	ingonoroon bocnital	on Acian norcepotivo	L Dolligt Mod	
i phila letai	End-of-life car	e in the denera	I wards of a S	Indaporean nospital.	an Asian perspective	I Palliat Med I	

No

No

No

Zoom/video-call

No

ACP not done

ACP not done

ACP not done

Phonecall

Dr calls family

Cause I	ACP documentation is long and consuming				and t	time-
Cause J	Junior doctors	doctors s' schedule	not es	sure	of	senior

Implementation

Root Cause	Intervention	Implementation Date
Cause B: Goals of care discussion deemed sufficient	Staff education – department briefing to correct common misperceptions of ACP,	Cycle 1: 1 st week April 2022
Cause C: Inadequate staff knowledge about ACP	clarify work processes, encourage staff to build ACP upon goals of care discussion.	Cycle 1A: 1 st week May 2022
Cause A: No organized system to initiate ACP	Introduce ward round / discharge summary templates which include whether ACP is done, whether ACP is offered, and reasons if	Cycle 2: 3 rd week May 2022
	not done. Designated senior staff to oversee screening.	Cycle 2A: 3 rd week June 2022
Cause D: No protected time	Introduce periods of protected time for staff to conduct ACP discussions	Cycle 3: 1 st week July 2022

Results

Percentage of New ACP Completion Among Palliative Medicine Inpatients Period: October 2021 to July 2023

100				
100	Cycle 2A: Senior staff to oversee			
90	Cycle 2: Documentation template, integrity of documentation		86.7%	
	senior staff to oversee screening 81.3% Cucle 2: Wave 2	81.8%	Nanari	
80	Cycle 5.		80.0%	

Detering KM et al. The impact of advance care planning on end of life care in elderly patients randomised controlled trial. BMJ. 2010 Mar 23;340:c1345 ealth care costs in the last week of life: associations with end of life conversations. Arch Intern Med. 2009 Mar 9;169(5):480-8 Schellinger S et al. Disease specific advance care planning for heart failure patients: implementation in a large health system. J Palliat Med. 2011 Nov:14(11):1224-30

eral wards of a singaporean nospital, an Asian perspective, s railiat wet 2011 Dec; 14(12):1296-301 Foo AS et al. Discrepancies in end-of-life decisions between elderly patients and their named surrogates. Ann

Acad Med Singap. 2012 Apr;41(4):141-53 Ng R et al. An exploratory study of the knowledge, attitudes and perceptions of advance care planning in family caregivers of patients with advanced illness in Singapore. BMJ Support Palliat Care. 2013 Sep;3(3):343-8 Ng QX et al. Awareness and Attitudes of Community-Dwelling Individuals in Singapore towards Participating in Advance Care Planning. Ann Acad Med Singap. 2017 Mar;46(3):84-90 Post-ACP Discussion Satisfaction Survey, TTSH, 2014

Flow Chart of Process

Macro Flowchart





*Excluding patients who had prior ACP done and under Department of Palliative Medicine ≤3 days

The mean percentage of new ACP completion improved from 4.9% pre-intervention (October 2021) - March 2022) to 44.4% 4 months post-intervention (April 2022 - July 2022).

In October 2022 following a dip in ACP rates, a review aimed at fine-tuning processes was done, involving a brainstorming session, obtaining ground feedback, and an online survey involving 21 staff. Post-review interventions were implemented: (1) Ensuring timely access to the AIC-ACP portal for new staff; (2) Aligning ACP discussion worksheet fields in EPIC with that in AIC-ACP portal; (3) Department updates of ACP rates every 3 months; (4) Tigertext reminders when rates are low; (5) Placing a reminder poster in the Palliative ward. The overall post-intervention mean was sustained at 48.8% up to July 2023 (April 2022 - July 2023).



Form is uploaded into AIC/NEHR system by ACP office

ACP discussion takes place (by Dr / nurse)

Cause and Effect Diagram



Improvement in ACP completion rate after CPIP	From 4.9% to 48.8% = approximately 40%
Expected number of additional ACPs completed per year as a result of CPIP	40% x 500 = 200 Total number of unique Palliative Medicine inpatients per year 500-600 (data from 2019/2020)
Expected annual cost savings due to reduction in patients admitted to ICU in last month of life	(4x200/100) x 7 x (\$2080-\$1114) = \$54,096 (Assuming 1 week ICU stay)
Expected annual cost savings due to reduction in patients admitted to hospital in last month of life	(6x200/100) x 13 x \$1114 = \$173,784 (Average length of inpatient Pall Med stay ~ 13 days)
Expected total cost savings per year	\$54,096 + \$173,784 = \$227,880

Based on unit cost of \$2080 per day for ICU stay, and \$1114 per day for general ward stay

Based on study by Tan, which suggests that out of 100 palliative patients, prior ACP potentially prevents approximately 4 patients from being admitted to ICU and 6 patients from being admitted to hospital, in the last month of life. (Tan WS (2018). Eliciting and honouring end-of-life care preferences: a multiple methods study on place of death. Doctoral thesis, Nanyang Technological University, Singapore)

Problems Encountered

- Challenge in defining target population and goal, in view of heterogeneity of palliative patients
- Gaining acceptance of staff to participate in interventions that are potentially time-consuming

Strategies to Sustain

- Structured training of new joiners to department, with incorporation of information into eLEARN
- Maintain documentation templates by building SmartPhrases in EPIC; make filling of ACP fields "compulsory" (using SmartLists) to ensure it is not dismissed
- Regular sharing of project results with department, to motivate staff and continue culture shift