Project Title

Improving First Visit Attendance for Patients Referred from Medical Oncology Clinic to Palliative Medicine Clinic

Project Lead and Members

Dr Ang Shih-Ling & Dr Yee Choon Meng

Organisation(s) Involved

National Healthcare Group

Healthcare Family Group(s) Involved in this Project

Medical

Applicable Specialty or Discipline

Palliative Medicine

Project Period

Start date: Apr 2018

Completed date: Feb 2021

Aims

To improve the FIRST VISIT ATTENDANCE PERCENTAGE (FVAP) of patients referred from Medical Oncology Clinic (MOC) to Palliative Medicine Clinic (PMC) from 65% to 100% within 6 months

Background

See poster attached/ below

Methods

See poster attached/ below

Results

See poster attached/ below

Lessons Learnt

See poster attached/ below

Conclusion

See poster attached/ below

Additional Information

Accorded National Healthcare Group (NHG) Quality Day 2022 – Junior Medical Doctors (Merit Award)

Project Category

Care & Process Redesign

Quality Improvement, Workflow Redesign, Design Thinking, Lean Methodology

Keywords

Referral Rate, Pre-Clinic Education

Name and Email of Project Contact Person(s)

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Improving First Visit Attendance for Patients Referred from Medical Oncology Clinic to Palliative Medicine Clinic

Dr Ang Shih-Ling & Dr Yee Choon Meng

Department of Palliative Medicine

Tan Tock Seng Hospital, National Healthcare Group

National Healthcare Group — Adding years of healthy life

Mission Statement

To improve the FIRST VISIT ATTENDANCE PERCENTAGE (FVAP)* of patients referred from Medical Oncology Clinic (MOC) to Palliative Medicine Clinic (PMC) from 64%** to 100%*** within 6 months

* First Visit Attendance Percentage (FVAP): Refers to first visit patients who are referred by MOC and seen in PMC clinic

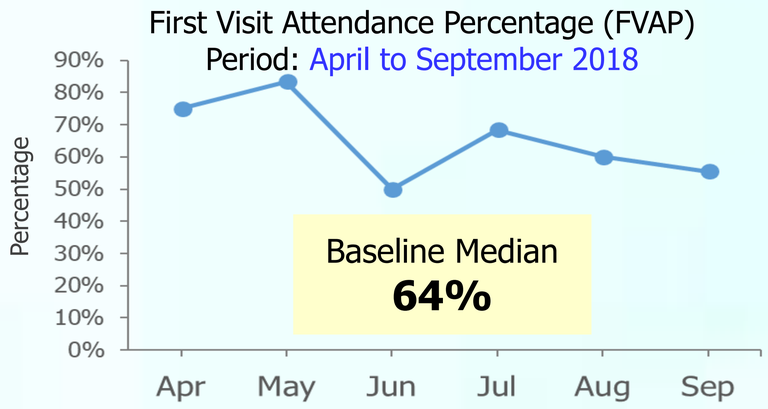
** FVAP = Number of patients attended FV divide by Number of patients referred by MOC excluding those who died or were too weak

*** Exclude patients who were too weak or had died before clinic appointment

Team Members

	Name	Designation	Department
Team Leaders	Dr Ang Shih-Ling	Principal Resident Physician	Palliative Medicine
	Dr Yee Choon Meng	Senior Consultant	Palliative Medicine
Team Members	Siti Mariam Binte Jailani	Senior PSA	Clinic 5A
	Atiqah Nor Fatin	PSA	Clinic 5A
	Dr Troy Sullivan	Senior Consultant	Medical Oncology
	Amanda Guo	Operations Manager	CCC
Sponsors	Adj A/Prof Mervyn Koh Yong Hwang, Adj A/Prof Lavina Bharwani & Ms Sim Jin Yen		**Legend** PSA = Patient Service Associate; CCC = Continuing & Community Care
Facilitator	Adj A/Prof Tan Hui Ling		

Evidence for a Problem Worth Solving

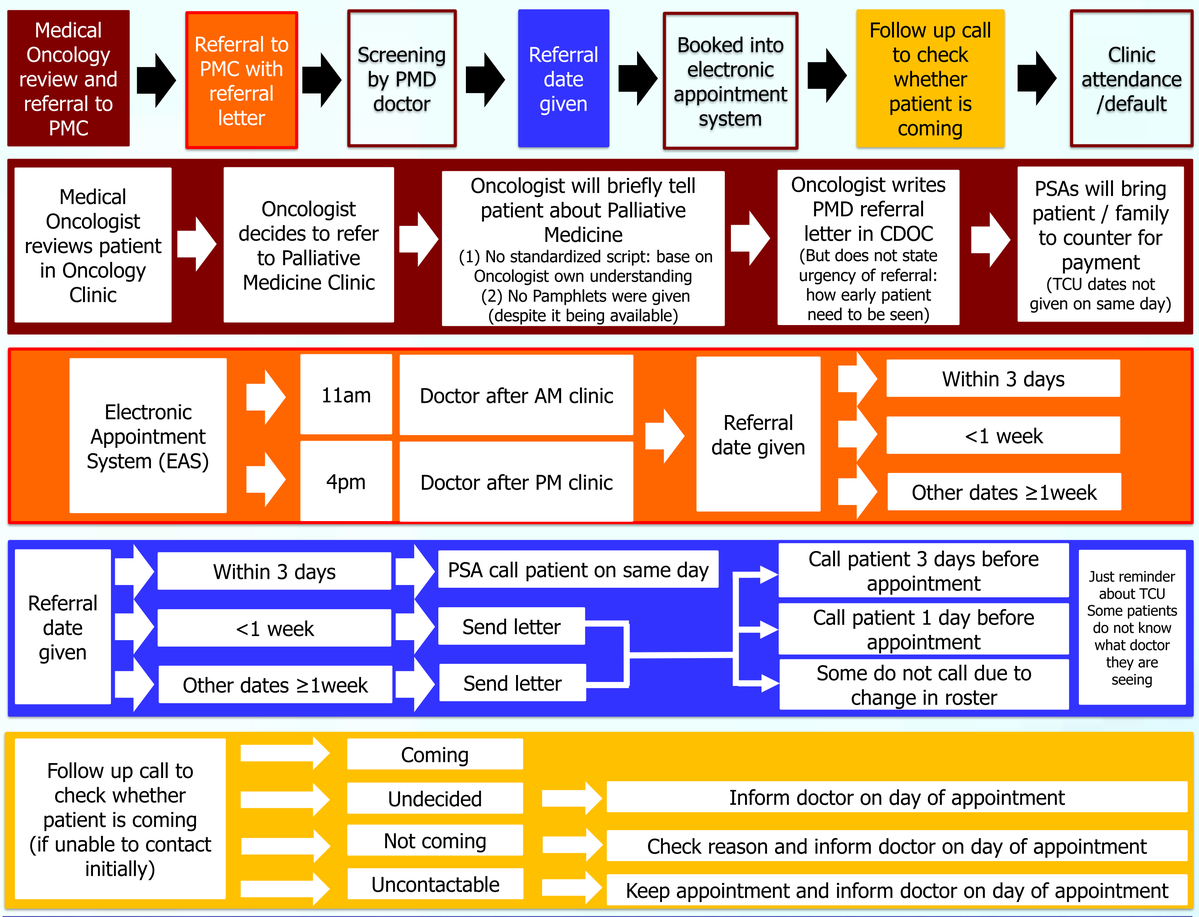


Impact of Missed Appointment to Patients with Advanced Cancer:
1) Worsen survival
2) Increased Emergency utilisation

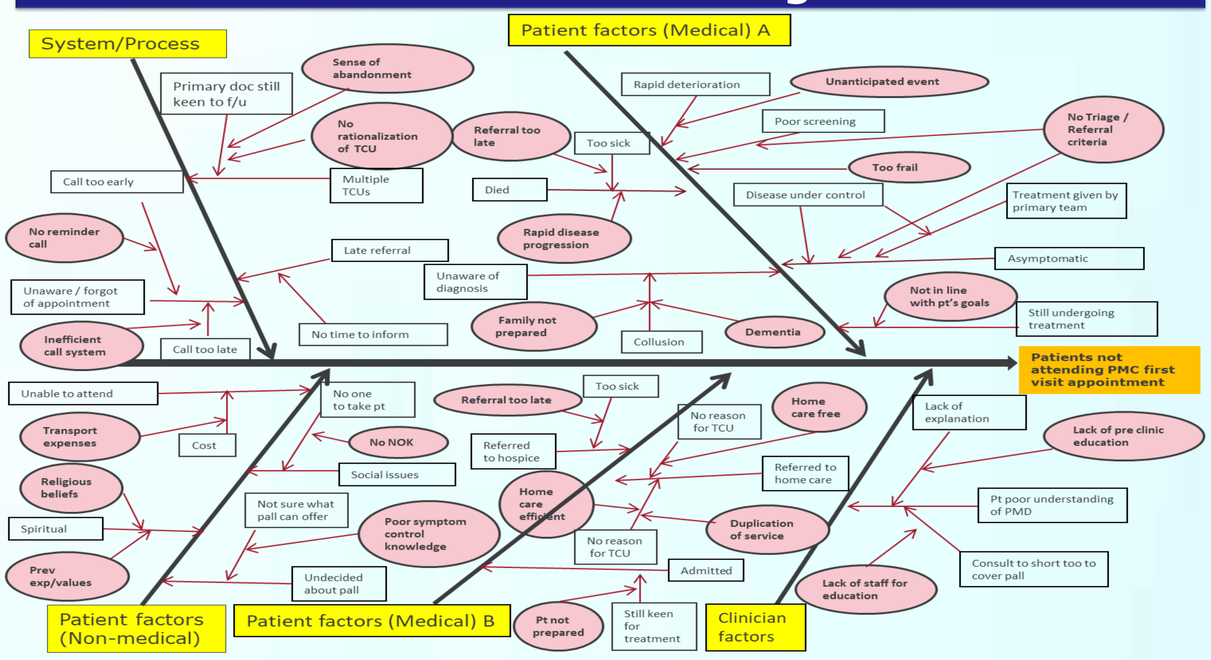
Medical Oncology Clinic is the biggest Palliative Medicine Clinic referral source

Year 2018	Apr	May	Jun	Jul	Aug	Sep
First Visit Attendance	12	5	3	13	6	5
Total Medical Oncology Patients Referred (minus too sick / RIP patients)	16	6	6	19	10	9

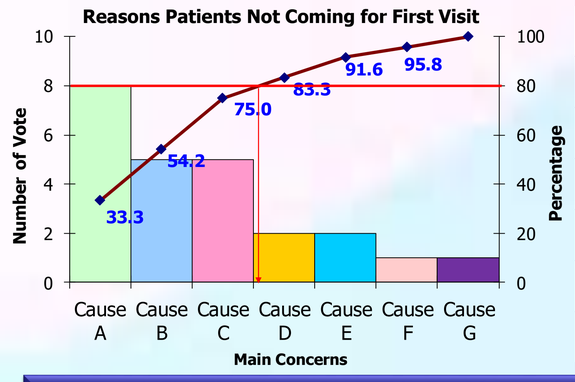
Flow Chart of Process



Cause and Effect Diagram



Pareto Chart

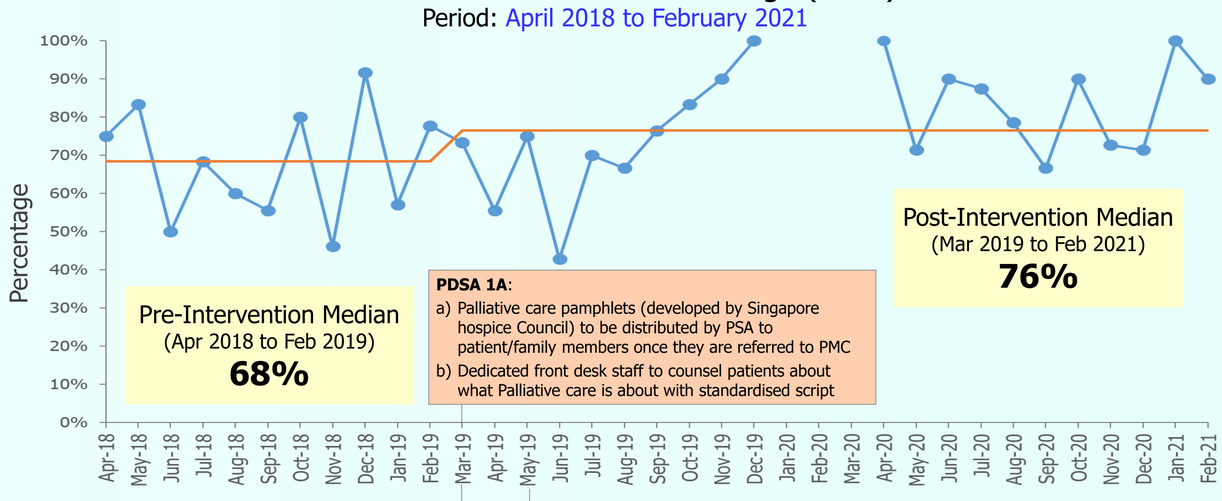


Cause A	Lack of pre-clinic education
Cause B	No triage / referral criteria
Cause C	Inefficient call system
Cause D	Lack of dedicated staff for education
Cause E	Unanticipated event
Cause F	Too frail
Cause G	No reminder calls

Implementation

Root Cause	Intervention	Implementation Date
Lack of pre-clinic education	**PDSA 1A**: a) Palliative care pamphlets (developed by Singapore Hospice Council) to be distributed by PSA to patient/family members once they are referred to PMC b) Dedicated front desk staff to counsel patients about what Palliative care is about with standardised script	5 March 2019
	PDSA 1B: Introducing palliative care to patient and their families using revised PSA Script (in English and Mandarin with Layman terms)	12 March 2019
	PDSA 1C: Briefing session for PSAs / Nurses in Clinic 5A (to give out Palliative care pamphlets & use script when calling patients) & daily reminder at roll call	7 May 2019

Results



Year	2018									2019												2020									2021	
Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
First Visit Attendance	12	5	3	13	6	5	12	6	11	8	7	11	5	9	3	7	8	13	5	9	8	13	5	9	7	11	6	9	8	5	6	9
Total Medical Oncology Patients Referred (minus too sick / RIP patients)	16	6	6	19	10	9	15	13	12	14	9	15	9	12	7	10	12	17	6	10	8	13	7	10	8	14	9	10	11	7	6	10

Cost Savings

	Pre-Intervention	Post-Intervention
1st Visit Attendance Percentage	68%	76%
% Wasted Slot (Per Month)	32% (4 slots)	24% (1 slot)
Reduction in No. of Slot Wasted (Per Month)	4 - 1 = 3 slots	
Manhour Cost Saved (Per Month)	3x [Consultation Cost + Admin Cost] 60 minutes required by Doctor + 60 minutes required by PSA = 3 x [($4.87 x 60mins) + ($0.46 x 60mins)] = $959.40	
Manhour Cost Saved (Annualized)	**$11,512.80**	

Legend:
Weighted Ave Cost per min for Consultant = $4.87
Weighted Ave Cost per min for PSA= $0.46
Estimated No. of Medical Oncology Patients referred (Minus too sick / RIP) = 12 per month

Lessons Learnt

1. Understanding and defining the problem at stake is important (at all levels)
2. Derived measurable and reproducible outcome which is of clinical relevance to patient care is important
3. Implementing interventions may require constant feedback for refinement and empowering your colleagues as change agents in the process

Strategies to Sustain

1. Establish a sustainable workflow in Clinic 5A
   - Empowerment and Ownership to engineer culture shift
   - Orientation to new staff about new workflow
2. To test out model in other Clinic which has high referral rate for oncology patient (example General Surgery Clinic 4A)