Project Title

Reducing % of Inappropriate Referrals for Emergency Department-Jurong Community Hospital Transfers

Project Lead and Members

Project lead: Dr Colin Ong

Project members: Dr Alvin Ong, Janna Goh, Ho Hee Wee, Jasmine Chua, Kamala Velu, Ng Kai Xin

Organisation(s) Involved

Ng Teng Fong General Hospital, Jurong Community Hospital

Healthcare Family Group Involved in this Project

Medical, Nursing, Healthcare Administration

Applicable Specialty or Discipline

Emergency Medicine

Aims

The ED-JCH workgroup aims to reduce the percentage of inappropriate referrals to less than 20% by June 2021.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Lessons Learnt

- Having a dedicated Case Manager (CM) in ED to act as a single point of contact and a team of personnel on the ground to support will increase consistency and sustainability of interventions. This also improves pro-activeness of staff.
- Sharing knowledge on Community Hospital (CH) capabilities and having ongoing awareness of the program criteria through resource personnel and available materials helps improve the appropriateness of referrals.

Conclusion

See poster appended/ below

Project Category

Care & Process Redesign

Access to Care, Referral Rate

Keywords

Emergency Department referrals, Community hospital, clinical suitability

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REDUCING % OF INAPPROPRIATE REFERRALS FOR ED-JCH TRANSFERS

❑ SAFETY
✓ QUALITY
✓ PATIENT EXPERIENCE
✓ PRODUCTIVITY
❑ COST

MEMBERS:
DR COLIN ONG, DR ALVIN ONG, JANNA GOH, HO HEE WEE, JASMINE CHUA, KAMALA VELU, NG KAI XIN

Define Problem, Set Aim

Problem/Opportunity for Improvement

One of the measures to right site ED patients is through direct ED to JCH transfer which requires clinicians to assess clinical suitability before referral.

Between Jan 19 to Feb 2020, the average percentage of inappropriate referrals from ED to JCH was as high as 41% (*Excluding rejections due to logistic issue & patients who declined*) and peaked at 75% in February 2020.

Inappropriate referrals are undesired as they lead to wastage of resources and incur longer waiting time for patients to eventually be right sited to appropriate care.

Aim

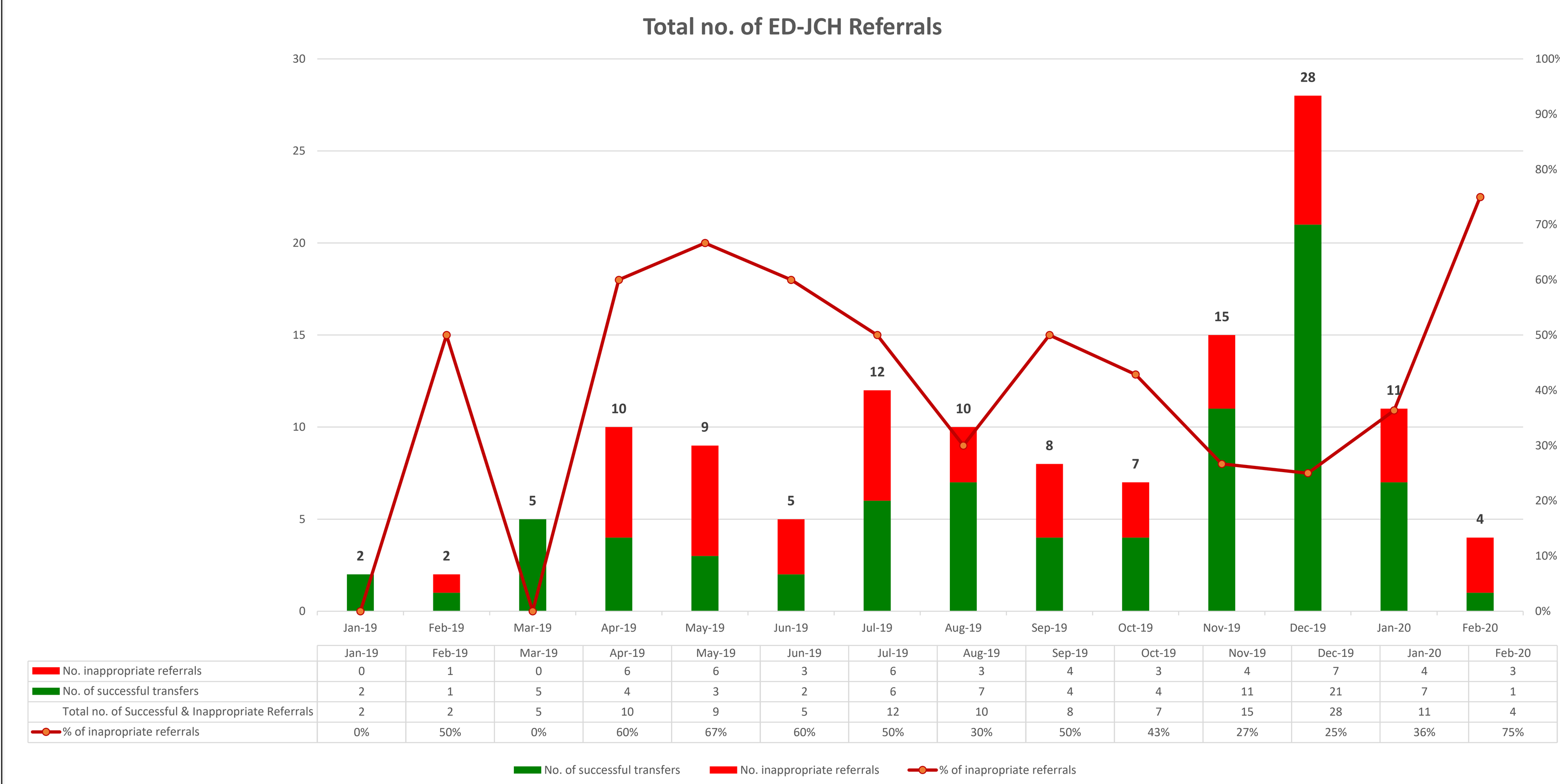
The ED-JCH workgroup aims to reduce the percentage of inappropriate referrals to less than 20% by June 2021.

Scope:

All NTFGH ED patients that are suitable for referral to JCH.

Establish Measures

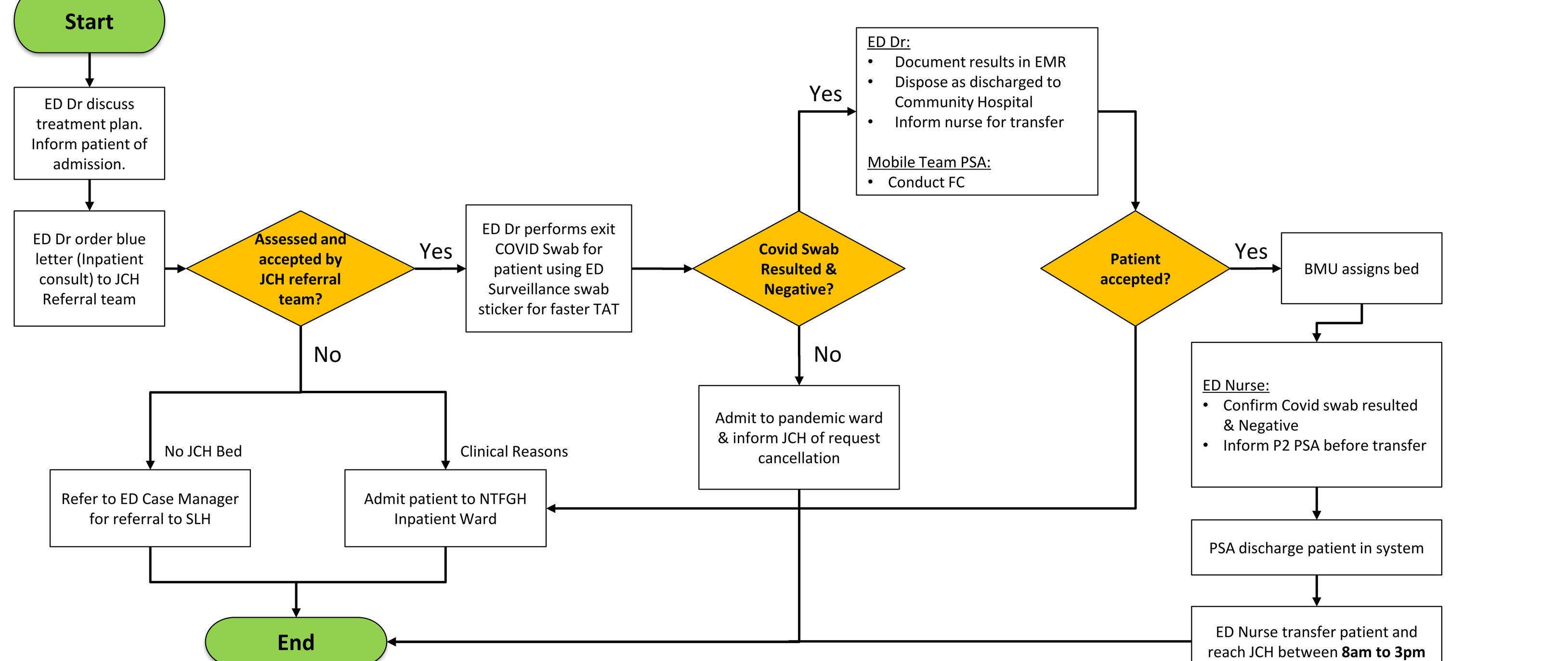
Type of Measure	Measure	Baseline data (January 2019 – February 2020)
Outcome	% of inappropriate referrals for transfers from ED to JCH	Average = 41%
Process	Total number of monthly referrals from ED to JCH *(Excluding rejections due to logistic issue & patients who decline)*	Average = 9
Balancing	Total number of unplanned transfers from JCH to NTFGH within 72 hours *(To monitor that intervention does not increase unplanned transfers)*	2

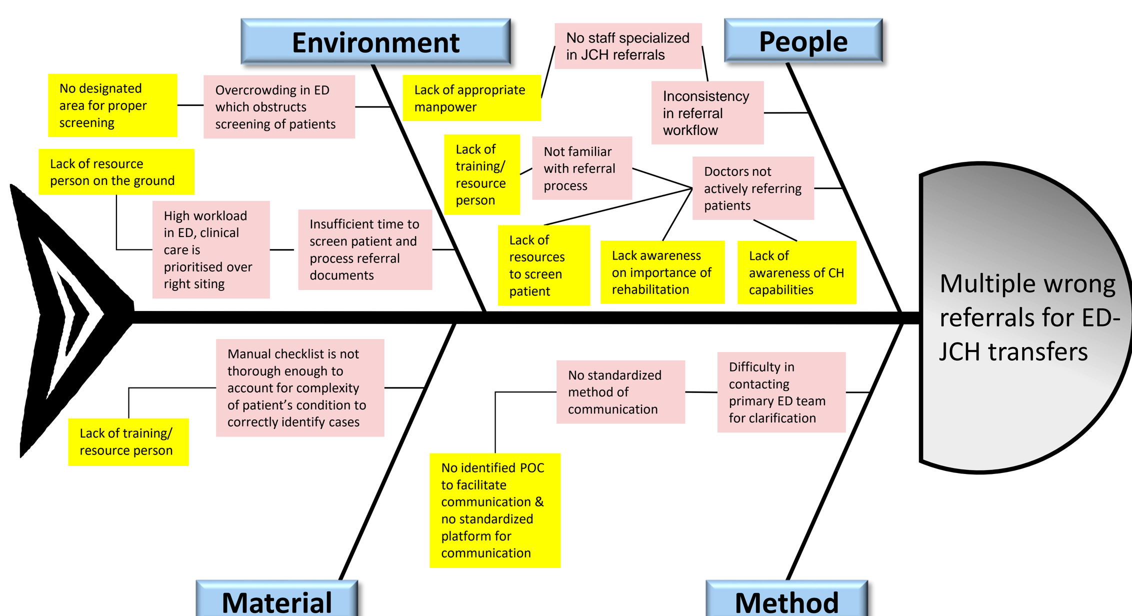


	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20
No. inappropriate referrals	0	1	0	6	6	3	6	3	4	3	4	7	4	3
No. of successful transfers	2	1	5	4	3	2	6	7	4	4	11	21	7	1
Total no. of Successful & Inappropriate Referrals	2	2	5	10	9	5	12	10	8	7	15	28	11	4
% of inapropriate referrals	0%	50%	0%	60%	67%	60%	50%	30%	50%	43%	27%	25%	36%	75%

Analyse Problem

Current process: ED-JCH Direct admission workflow





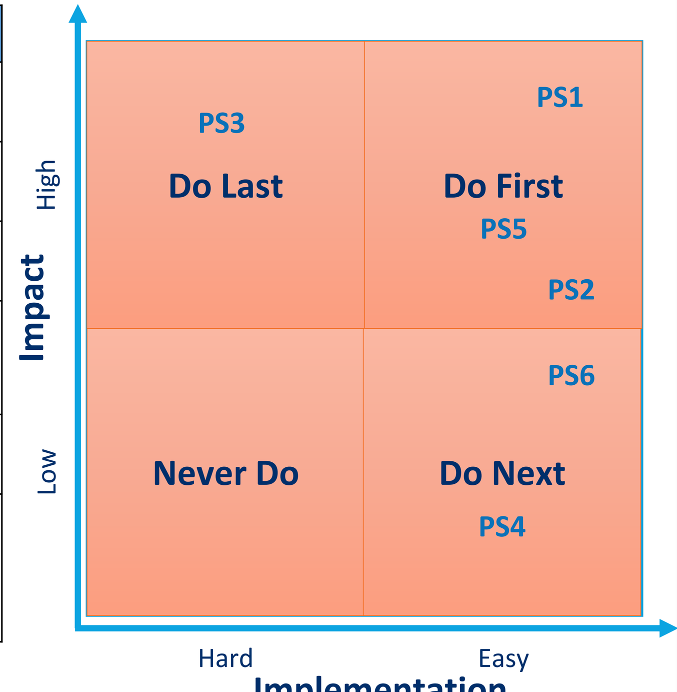
Root causes identified

1. Lack of training/ resource person on ground
2. Lack of awareness of CH capabilities & importance of Rehabilitation
3. No designated area for proper screening
4. No identified POC to facilitate communication & no standardised platform for communication

Select Changes

Based on the root causes identified, the team developed 6 potential solutions, ranked and implemented according to the Impact vs Implementation matrix.

Root Cause		Potential Solutions
• Lack of training/ resource person on ground • Lack of awareness of CH capabilities & importance of Rehabilitation	1	Deploy Case Manager in ED to identify suitable patients and facilitate transfer.
	2	Sharing of ED-JCH workflow and referral criteria during ED Clinical meeting by JCH Referral team.
	3	Identify a team of ED Doctors and nurses to be trained as resource persons on ground.
	4	Improve accessibility of reference materials by uploading on Intranet and having resource files in P2 & EDTU. (Facilitated by ED Ops team)
• No designated area for proper screening	5	Designate P2 Room 24 as screening area for patients to be assessed before referring to JCH.
• No identified POC to facilitate communication & no standardised platform for communication	6	Tapping on existing ED-JCH TigerConnect chat for clarification and better coordination between ED Clinicians, ED Case Manager, JCH Referral team and ED Ops team.

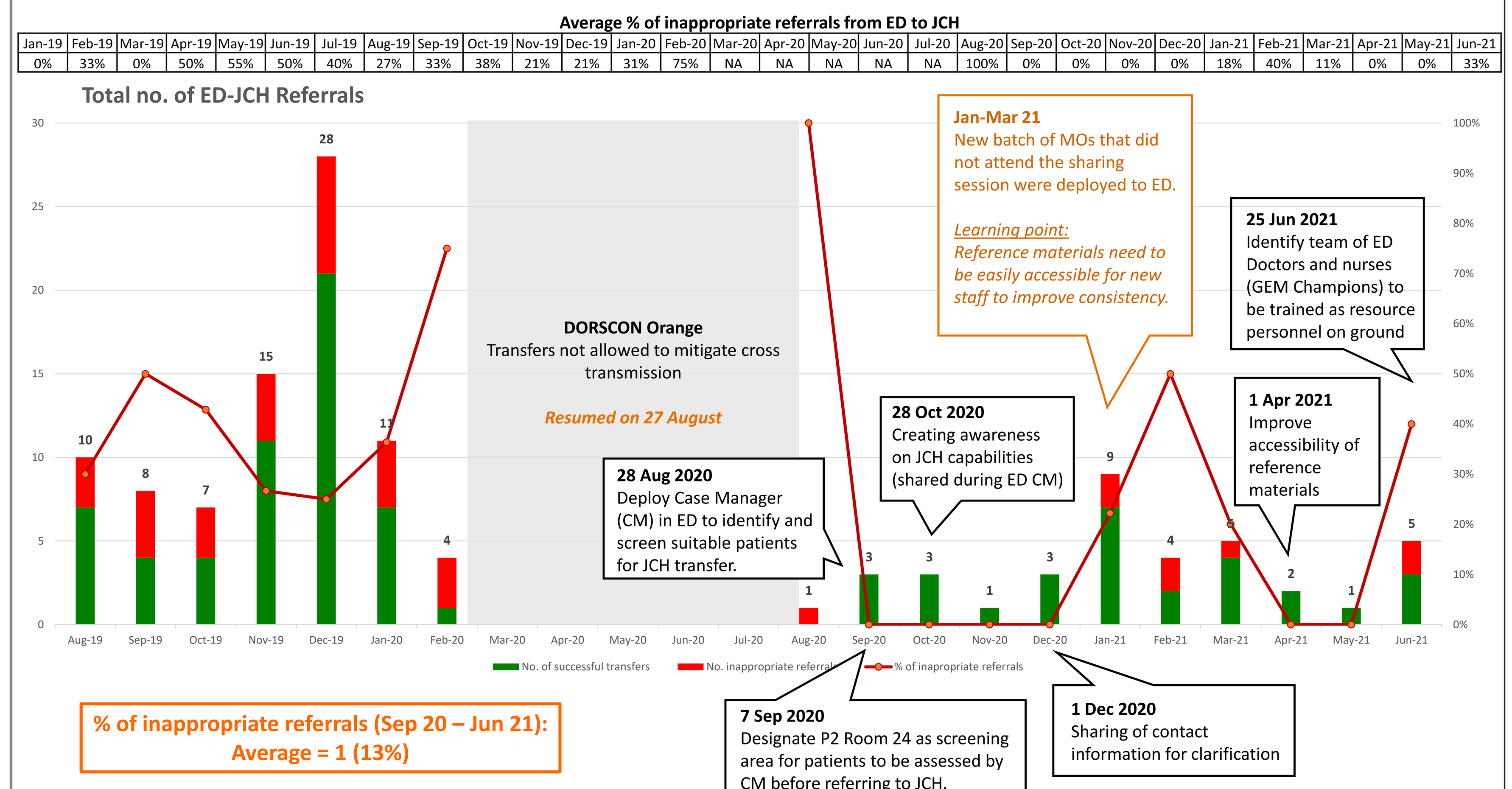


Test & Implement Changes

CYCLE	PLAN	DO	STUDY	ACT
1	Deploy dedicated Case Manager (CM) in ED to identify and screen suitable patients for JCH transfer. Date: 28 Aug 20	With CM that is well-versed in right siting, patients are screened and assessed for suitability before referring to JCH. Observation: Clinicians will also approach CM for clarification on referrals.	With a designated resource person, patients can be assessed accordingly before referral which improved the appropriateness of referral. However, high workload and overcrowding in ED impedes proper screening of patients which further supports the implementation of designated screening area (PS5).	Adopt. CM will now screen patients and assess suitability for transfer before referring to JCH.
2	Designate P2 Room 24 as screening area for patients to be assessed by CM before referring to JCH. Date: 7 Sep 20	CM adopts various geriatric assessment tools to assess patients holistically to better determine the suitability of referral.	With a more conducive area for screening of patients, proper assessments can be performed by CM to better determine the suitability of referral.	Adopt. P2 Room 24 will now be used to assess patients for suitability before referring to JCH.
3	Raise awareness on referral criteria and JCH capabilities by arranging for JCH referral team to have sharing session with ED clinicians during ED M&M. Date: 28 Oct 20	ED clinicians found the session useful and have better understanding on JCH capabilities and referral criteria.	With better understanding of JCH capabilities and referral criteria, clinicians were more proactive in referring suitable patients.	Adapt. Resources shared during the sharing session should be made readily available for reference when in doubt.
4	Sharing of contact information for clarification: Tapping on existing ED-JCH TigerConnect chat Date: 1 Dec 20	Queries and clarification were made on the TigerConnect chat Observation: Communication response time is shortened.	Common communication platform facilitates clarification and improves coordination between ED Clinicians, ED Case Manager, JCH Referral team and ED Ops team.	Adapt. Contact number of ED Senior Dr is also shared with JCH referral team subsequently so that clinicians can be directly contacted which further improves response time.
5	Improve accessibility of reference materials by uploading on Intranet and having resource files in P2 & EDTU. (Facilitated by ED Ops team) Date: 1 Apr 21	With reference material readily available, clinicians and also nurses would refer to them to lookout for suitable patients for referral.	Nurses can also assist to screen and assess suitability of patient and highlight to CM or clinicians for referral to JCH.	Adopt. All relevant reference materials will be made available on Intranet and resource files.
6	Identify a team of ED RPs and nurses (GEM- Geriatric Emergency Medicine Champions) to be trained as resource persons on ground. Date: 25 June 21	Team members were identified and expectations were communication to them. Observation: Identified team members were more proactive in screening and referring suitable patients	The team of trained personnel can facilitate referral when CM is not available hence improving consistency in referrals.	Adopt. Clinicians, Nurses and CM can all work hand in hand to improve suitability of referrals.

Average % of inappropriate referrals from ED to JCH

Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
0%	33%	0%	50%	55%	50%	40%	27%	33%	38%	21%	21%	31%	75%	NA	NA	NA	NA	NA	100%	0%	0%	0%	0%	18%	40%	11%	0%	0%	33%



Spread Changes, Learning Points

Implementation plans were successful in achieving our target.

Note: ED to CH transfer not allowed between Mar 20 – Aug 20, resumed on 27 Aug 20.

	January 2019 – February 2020 (Pre-implementation)	September 2020 – June 2021 (Post-implementation)
Average no. of monthly inappropriate referrals	4	1
Average % of monthly inappropriate referrals	41%	13%
Total number of unplanned transfers from JCH to NTFGH within 72 hours	2	0

Training materials will also be shared with other ED staff (beyond the GEM Champions) with the aim to expand the team of resource personnel on ground to ensure consistency and sustainability.

Key learning points:

- Having a dedicated Case Manager (CM) in ED to act as a single point of contact and a team of personnel on the ground to support will increase consistency and sustainability of interventions. This also improves pro-activeness of staff.
- Sharing knowledge on CH capabilities and having ongoing awareness of the program criteria through resource personnel and available materials helps improve the appropriateness of referrals.

Ng Teng Fong General Hospital

Jurong Community Hospital