

## **Project Title**

Closing the Care Gap: A Nurse-Led Heart Failure Clinic to Timely Clinic Review and Reduce Unplanned 30 Days Readmission

## **Project Lead and Members**

Project lead: Lay Cheng Toh

Project members: Dr Chan Po Fun

## **Organisation(s) Involved**

Ng Teng Fong General Hospital

## **Aims**

By June 2019, the project team aimed to reduce the % of heart failure reduced ejection fraction (HFrEF) readmissions, where the left side pump function of the heart is reduced.

## **Background**

See poster appended/ below

## **Methods**

See poster appended/ below

## **Results**

See poster appended/ below

## **Lessons Learnt**

A multi-pronged, holistic approach helps to reduce unplanned readmissions. Heart failure patients require needs-based service provision (which includes shorter lead time to consultant review) and consequently a wider variety of options in their care.

**Conclusion**

See poster appended/ below

**Project Category**

Care & Process Redesign

**Keywords**

Ng Teng Fong General Hospital, Service Design, Quality Improvement, Improvement Tools, Plan Do Check Act, Heart Failure Reduced Ejection Fraction

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# CLOSING THE CARE GAP : A NURSE-LED HEART FAILURE CLINIC TO TIMELY CLINIC REVIEW AND REDUCE UNPLANNED 30 DAYS READMISSION

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- SAFETY
- PRODUCTIVITY
- PATIENT EXPERIENCE
- QUALITY
- VALUE

## Define Problem/Set Aim

### Opportunity for Improvement

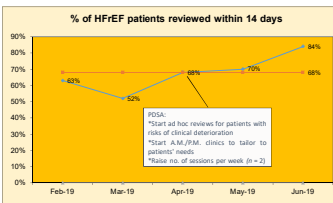
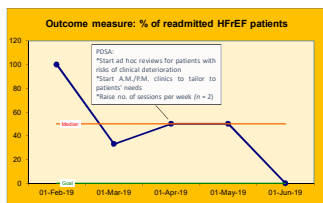
Between February to March 2019, approximately 78% of patients were readmitted within 30 days. This rate is above the hospital's target by 1% and affects the hospital's key performance indicators (KPIs). In addition, readmissions have financial implications under the Ministry of Health's pay-for-performance (P4P) schemes.

### Aim

By June 2019, the project team aimed to reduce the % of heart failure reduced ejection fraction (HFrEF) readmissions, where the left side pump function of the heart is reduced.

## Establish Measures

**Outcome measure:** % of readmitted HFrEF patients, based on the no. of HFrEF patients readmitted due to HF (numerator), divided by the total no. of HFrEF patients (denominator).

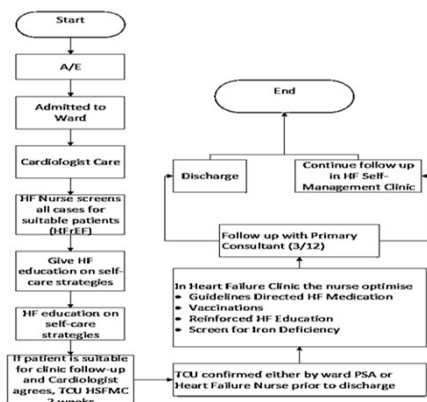


**Process measure:** % of HFrEF patients reviewed within 14 days, based on the no. of HFrEF patients reviewed within 14 days (numerator), divided by the total no. of HFrEF patients (denominator).

**Balancing measure:** No. of HF nurses involved = 1

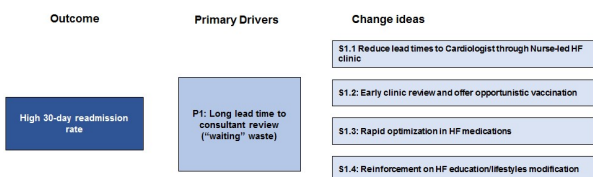
## Analyse Problem

### What is your current process?



### What are the probable root causes?

#### Driver diagram

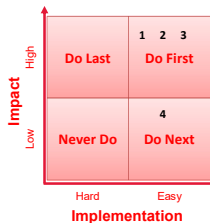


## Select Changes

### What are the probable solutions?

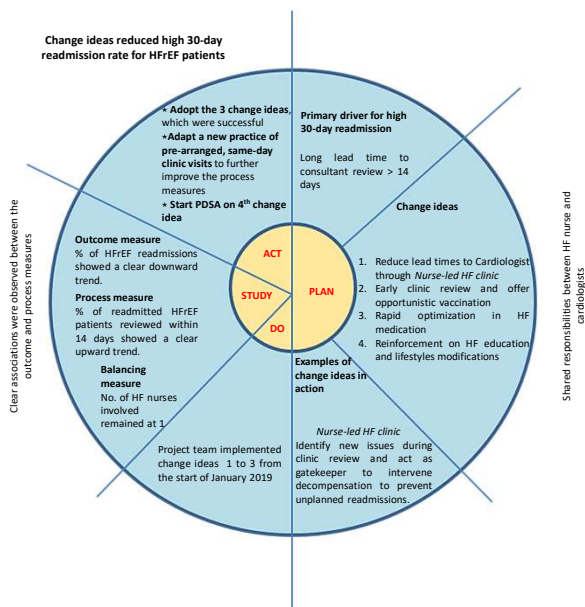
Following the root cause analysis, the project team identified 4 solutions or change ideas:

1. Reduce lead times to Cardiologist through Nurse-Led HF clinic
2. Early clinic review and offer opportunistic vaccination
3. Rapid optimization in HF medications
4. Reinforcement on HF education/lifestyles modification



## Test & Implement Changes

### How do we pilot the changes? What are the initial results?



## Spread Change/Learning Points

### What are the key learnings?

The solutions and change ideas were effective in reducing the % of HFrEF readmissions. In line with the empirical evidence, it is paramount to reduce the long lead time to consultant review, which can often result in clinical deterioration. This was evidenced by the clear association between outcome and process measures.

Saliently, a multi-pronged, holistic approach helps to reduce unplanned readmissions. HFrEF patients require needs-based service provision (e.g. ad hoc clinic reviews based on risks of clinical deterioration as opposed to pre-determined schedules) and consequently, a wider variety of options in their care (e.g. A.M./P.M. clinics, HF telephone helpline etc.)