[Restricted, Non-sensitive]

DELIVER HEART FAILURE PATIENT EDUCATION WITH PRE-RECORDED VIDEO TO MAXIMIZE TIME MANAGEMENT AND REDUCE REPETITIVE BEHAVIORS FOR CARDIOLOGY SPECIALTY NURSE

❑ WORKPLACE / PATIENT SAFETY
❑ PATIENT EXPERIENCE
☑ INNOVATION AND PRODUCTIVITY
❑ GREEN & SUSTAINABILITY

MEMBERS: TOH LAY CHENG, DR CHAN PO FUN, DR ELAINE BOEY, LEE YING MING, YANG LI JIA, LI HONG, CARRIE YAN, DR LOH POAY HUAN (SPONSOR)

Define Problem, Set Aim

Problem Statement

One of the Cardiology Specialty Nurse's role (CSN) at NTFGH is to provide Heart Failure (HF) education to patients with an ejection fraction (EF) less than 50%. Patients are empowered on self- care strategies, recognising symptoms, medication adherence and lifestyle modifications to improve quality of life

In our current patient education process, we rely on flip charts, which can be cumbersome due to their weight (1.3kgs). Due to high patient volume, average 80-100 inpatients per month, the CSN spends significant time repeating similar contents to each patient daily. The average counselling time is 22 minutes, with an additional 8-10 minutes for documentation (totalling approximately 30-32 minutes).

The repetitive nature of this process can lead to mental fatigue and vocal strain, affecting productivity. We propose implementing pre-recorded education videos for patients to address the above problems.

Aim Statement

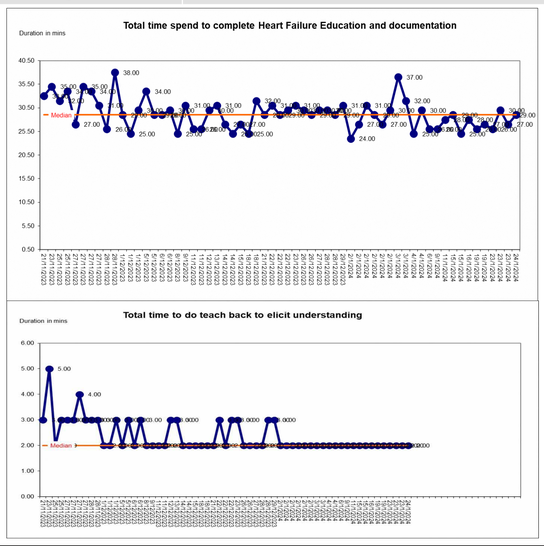
This QI project aims to:

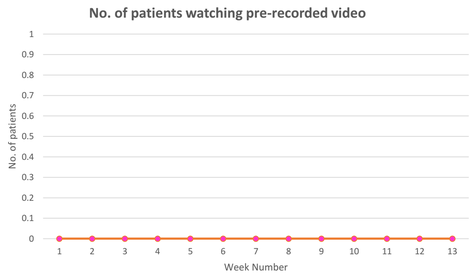
- Reduce education time by **30-50%** by June 2024.
- Minimize the repetitive counselling cycle
- Maximize CSN efficiency by allowing documentation while patients view pre-recorded educational videos on tablets (weighs 300grams)

Establish Measures

What was your performance before interventions?

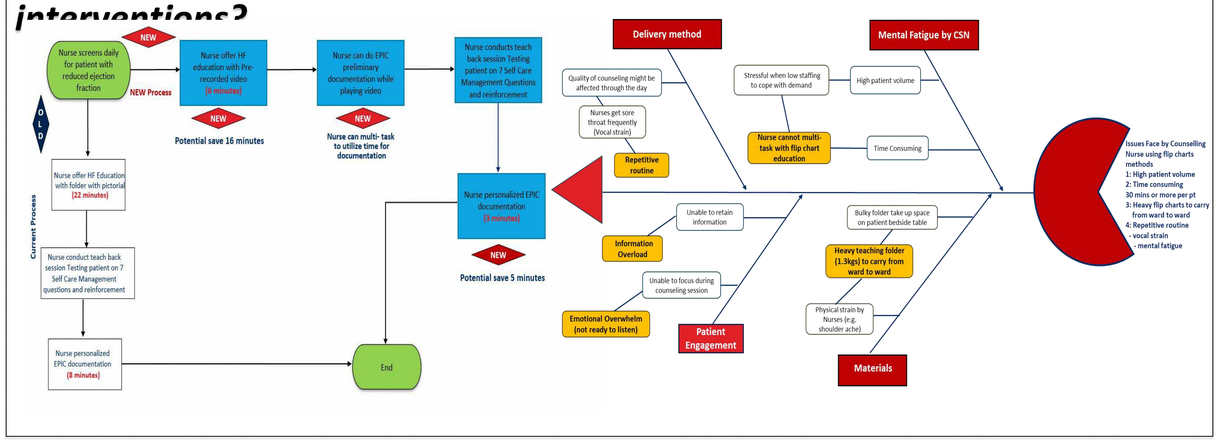
Type of Measure	Measure
Outcome	Total time spend to complete Heart Failure Education and documentation (trend traditional method first, then add on with the video).
Process	Number of patients watch the pre-recorded video.
Balancing	Total time to do teach back to elicit understanding.





Analyze Problem

What is your process before interventions?



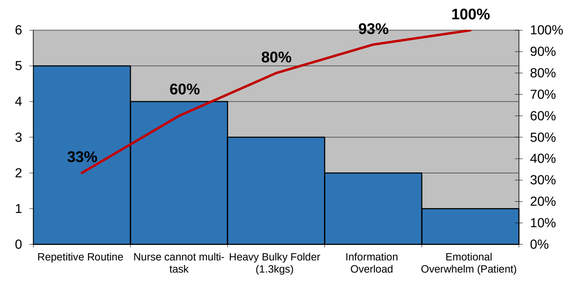
What are the probable root causes?

Scan to VOTE!

Select Changes

What are all the probable solutions? Which ones are selected for testing?

Root Cause		Potential Solutions
Repetitive routines in counselling	1	Pre-recorded HF video for HF education
Nurse cannot multi-task	2	Nurse Document while patient watch pre-recorded HF video
Heavy bulky folder	1	Pre-recorded video for HF education

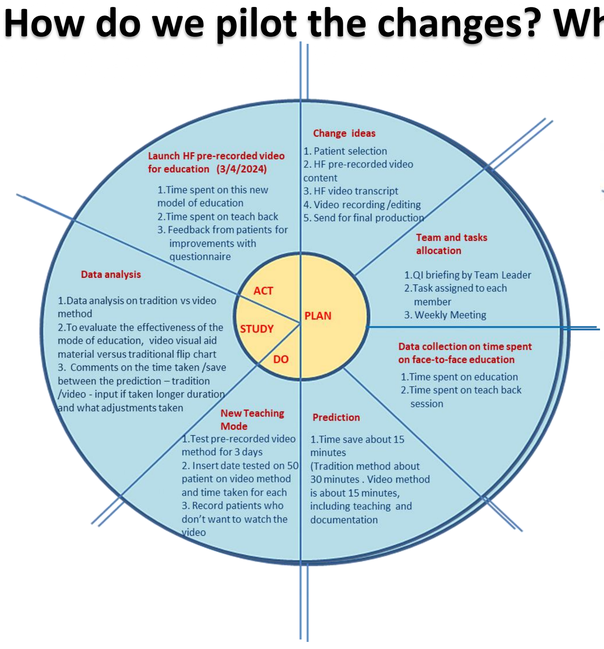


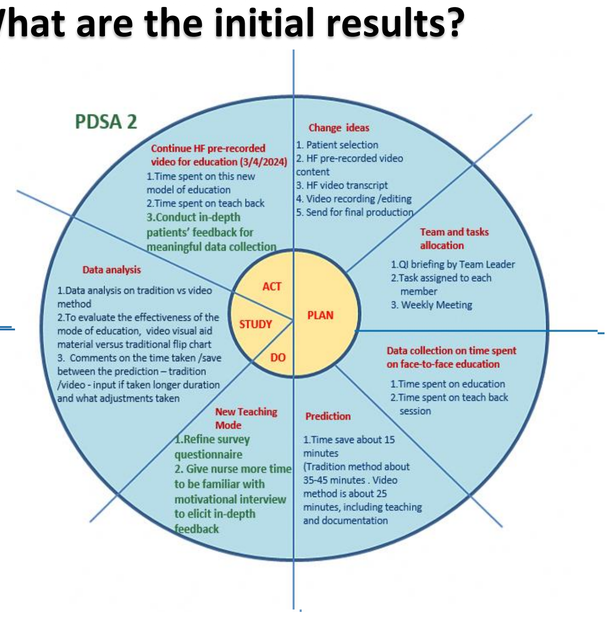
Video duration: 6.45 mins

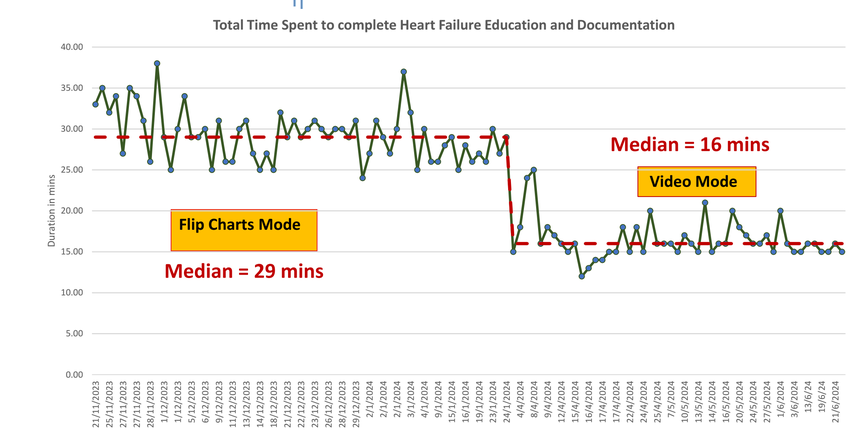
Video duration: 6.15 mins

Test & Implement Changes

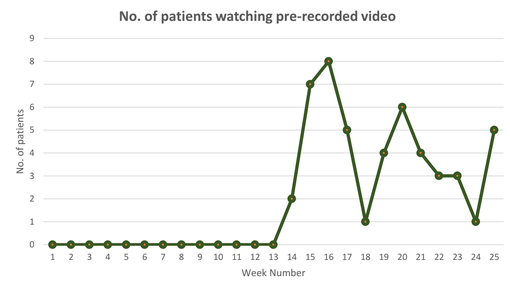
How do we pilot the changes? What are the initial results?

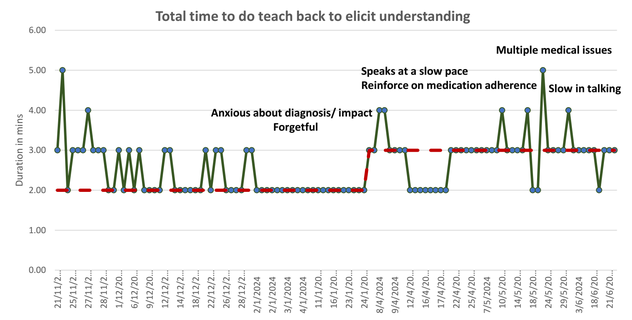






Almost 45% improvement





Spread Changes, Learning Points

Let delve into the results !

Efficient Implementation : Significant Time Reduction

- The adoption of pre-recorded video for HF education has markedly reduced the total time spent on education by an impressive 45%.
- This efficiency boost allowed Cardiology Specialty Nurses to allocate more time to other essential tasks.

Patient Acceptance and Preferences

- Survey results revealed majority of patients expressed a strong preference for video-based education over traditional face-to-face (flip charts) mode.
- Content simplicity, use of layman language, and helpful animations in the videos, aided patients understanding of their condition.
- A mean score of 8.4/10 validates the effectiveness of video teaching in the "Usefulness of Video" category. This not only reflects the high regard participants have for this teaching modality but also underscores its potential as a transformative tool in contemporary education.

Quality Assurance

- Despite using pre-recorded videos, the quality of education remains uncompromised. A "teach-back" session at the end of counselling sessions had demonstrated effective knowledge transfer, with 91% of the patients scored 7/7 on the teach back questions during the 1st attempt. The result was comparable to the flip charts approach.

QR Code Accessibility: Empowering Patients/Families

- Additional QR code offers patients easy access to educational resources, enabling them to reinforce their learning at their convenience and preferred setting.
- This reduces printed material waste, promote environmental sustainability, and lead to cost savings.

Key Learnings

In summary, the implementation of pre-recorded video for HF education has yielded promising outcomes in terms of time efficiency, patient acceptance, cost saving and knowledge enhancement.

Recommendations

- Other specialty nurses and allied health colleagues can explore leveraging the pre-recorded video for patient education. Inclusion and exclusion patient criteria are crucial for successful adoption and patient benefits.
- Valuable feedback from survey questionnaires informs enhancements and ensures diverse language availability.
- Consider replicating the approach for other counselling areas (e.g., cardiac rehabilitation after angioplasty).

Suggestions from patients on areas of improvement

1: Broadcast videos on TV screen in SoC patient waiting areas on HF Clinic session.
2: Provide videos in other languages (Malay). Currently available in English and Mandarin version
3: Include more exercise examples
4: Expand more examples on low salt diet
5: Use larger font subtitles

Ng Teng Fong General Hospital

Jurong Community Hospital