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To reduce the rate of hypoglycaemia in Jurong Polyclinic

Problem Statement

Hypoglycaemia may cause uncomfortable symptoms such as weakness, dizziness, hunger, sweating. If hypoglycaemia is left untreated, it may potentially cause seizures, unconsciousness requiring emergency care or even death.

Prompt recognition and management of hypoglycaemia are important to prevent serious long term health complications. In Singapore, hypoglycaemic episodes were found to be **underreported** based on a Singapore study (Self-reported Hypoglycaemia in Insulin-treated Patients with Diabetes Mellitus)⁽¹⁾.

In National University Polyclinics (NUP), the number of hypoglycaemia cases remained a concern. Majority of affected patients were not aware of hypoglycaemia symptoms. There was also lack of proper documentation of hypoglycaemia by clinicians.

Project Aim

To reduce the rate of hypoglycaemia episodes in DM patients from 0.58% to 0.3% in Jurong Polyclinic within the next 6 months.

Sub-target 1 : To improve patient understanding of hypoglycaemia management through Care Manager (CM) counselling

Sub-target 2 : To improve the documentation of hypoglycaemia episodes by doctors

Lessons Learnt

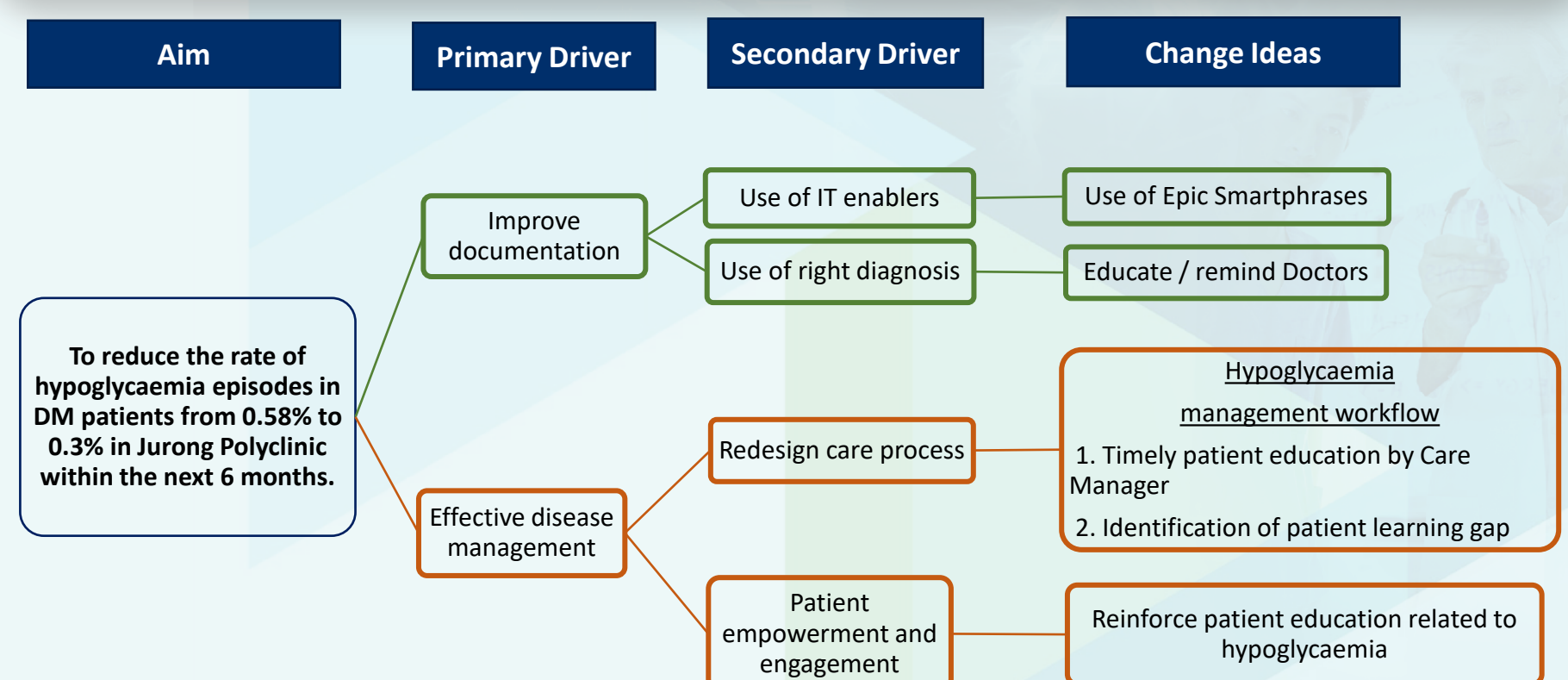
Patient feedback

Hearing from patients is very important (E.g. financial concerns regarding equipment). The team intended to try out the continuous blood glucose monitoring but the idea was taken off due to its cost for the patient.

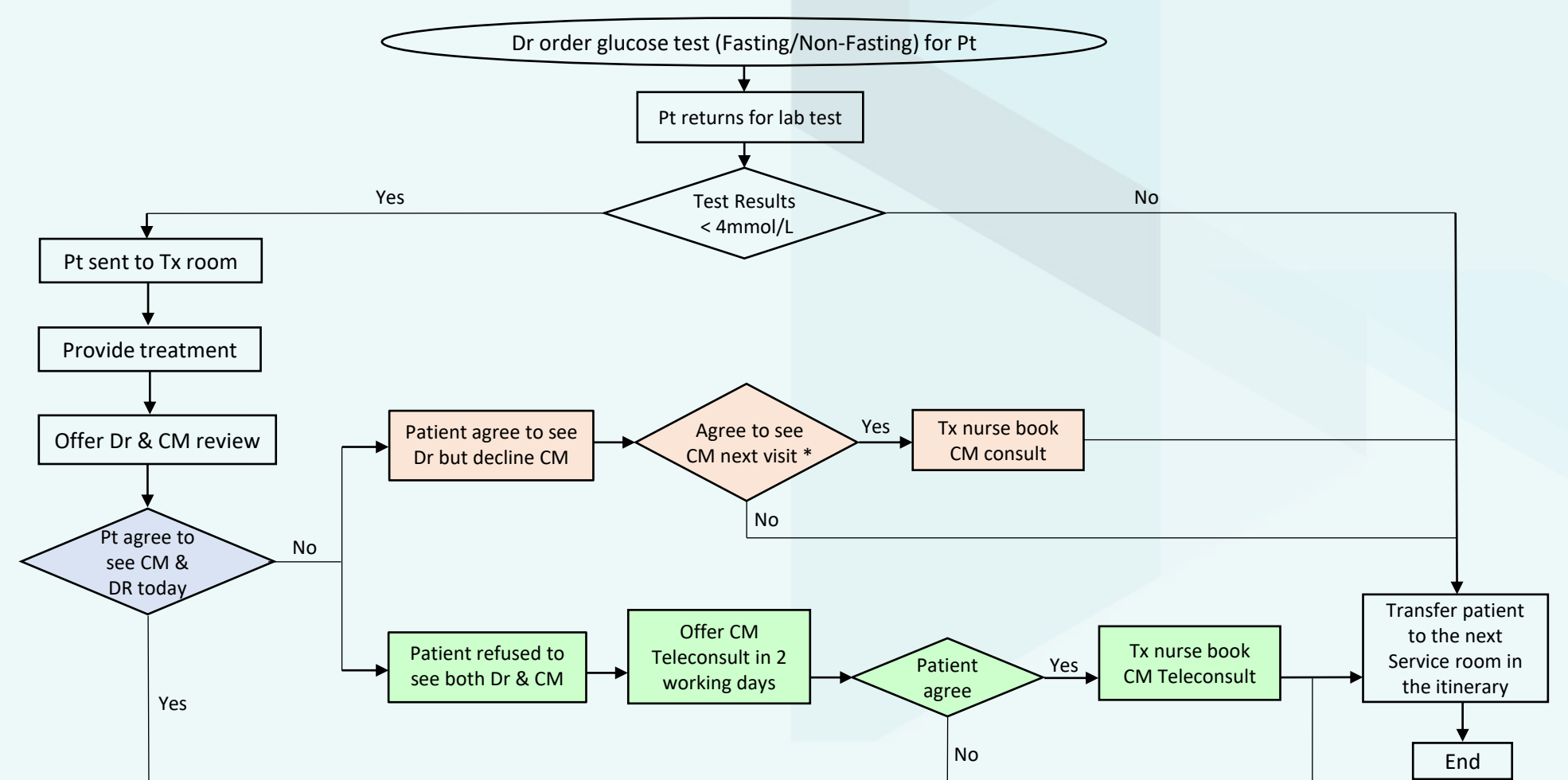
Team efforts

The collaborative effort and support from both the management and ground nurses have helped to drive this initiative forward. One example is the implementation of same-day CM consults following patients' hypoglycaemic episodes instead of scheduling CM consults alongside doctor consultations one week after the episode. By incorporating same-day CM consult, we have not only improved our workflow and enhanced patient care by ensuring timely intervention.

Potential Solutions

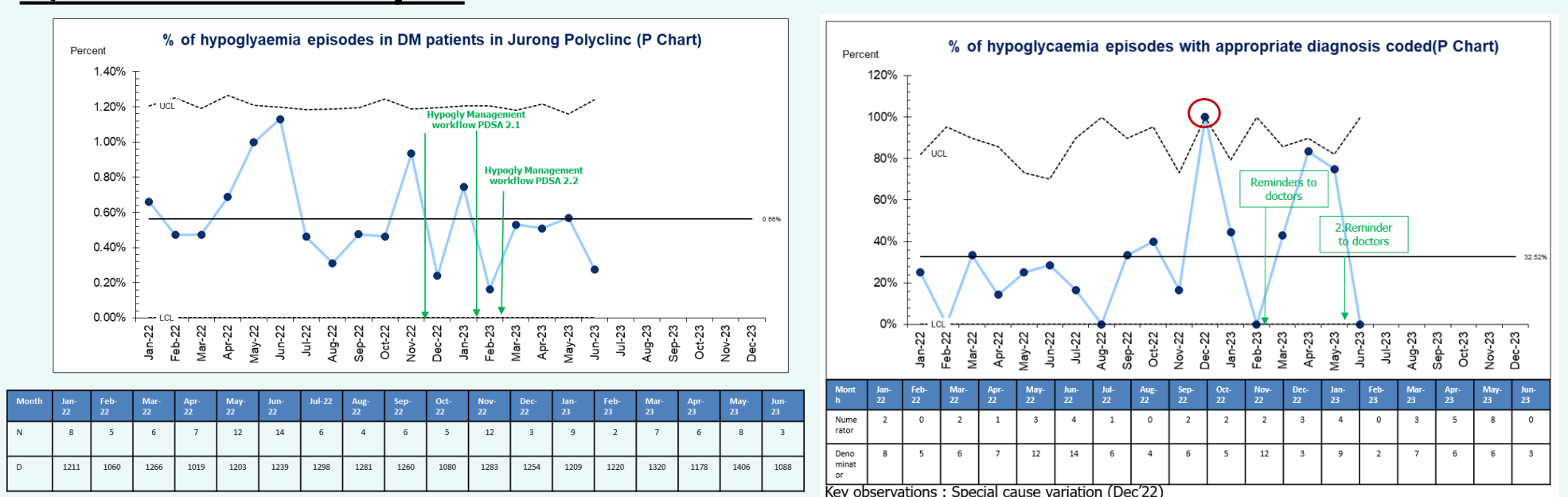


Hypoglycemia Management Workflow



Outcomes & Impacts

Quantitative analysis



Qualitative analysis

A hypoglycaemia awareness questionnaire (consisting of 2 questions) was administered to affected patients (n=33) pre and post of Care Manager (CM) counselling.

- 97% of patients were able to identify what is low blood sugar reading after CM counselling as compared to 52% of patients before CM counselling
- 70% of patients also rated a score of 4 and more when asked to rate their understanding of management of low blood sugar as compared to 15% of patients before CM counselling.

(Based on a Likert scale, 1 – Very unfamiliar, 2 – Unfamiliar, 3 – Somewhat familiar, 4 – Familiar, 5 – Very familiar)

The intervention is effective in improving patient knowledge of hypoglycaemia and its management.