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Role of Emergency Department in Population Health: A Diabetes Mellitus (DM) Case Study

Problem Statement

The projected **prevalence** of DM in the population above 60 years old is **40% by 2050**; leading to **heavy disease burden** and **healthcare cost**.

Singapore's age-sex **standardised DM admission rate is 2.1x of OECD average**.

However, **only 30%** of DM patients have regular follow-up to prevent and reduce complications.

Project Aim

To increase the percentage of ED discharged patients with non-optimal[^] DM control referred to care network^{^^} and actualising the appointment from 35% to 75% by September 2023.

[^]Non-optimal: CBG <3.9mmol/L or >12mmol/L

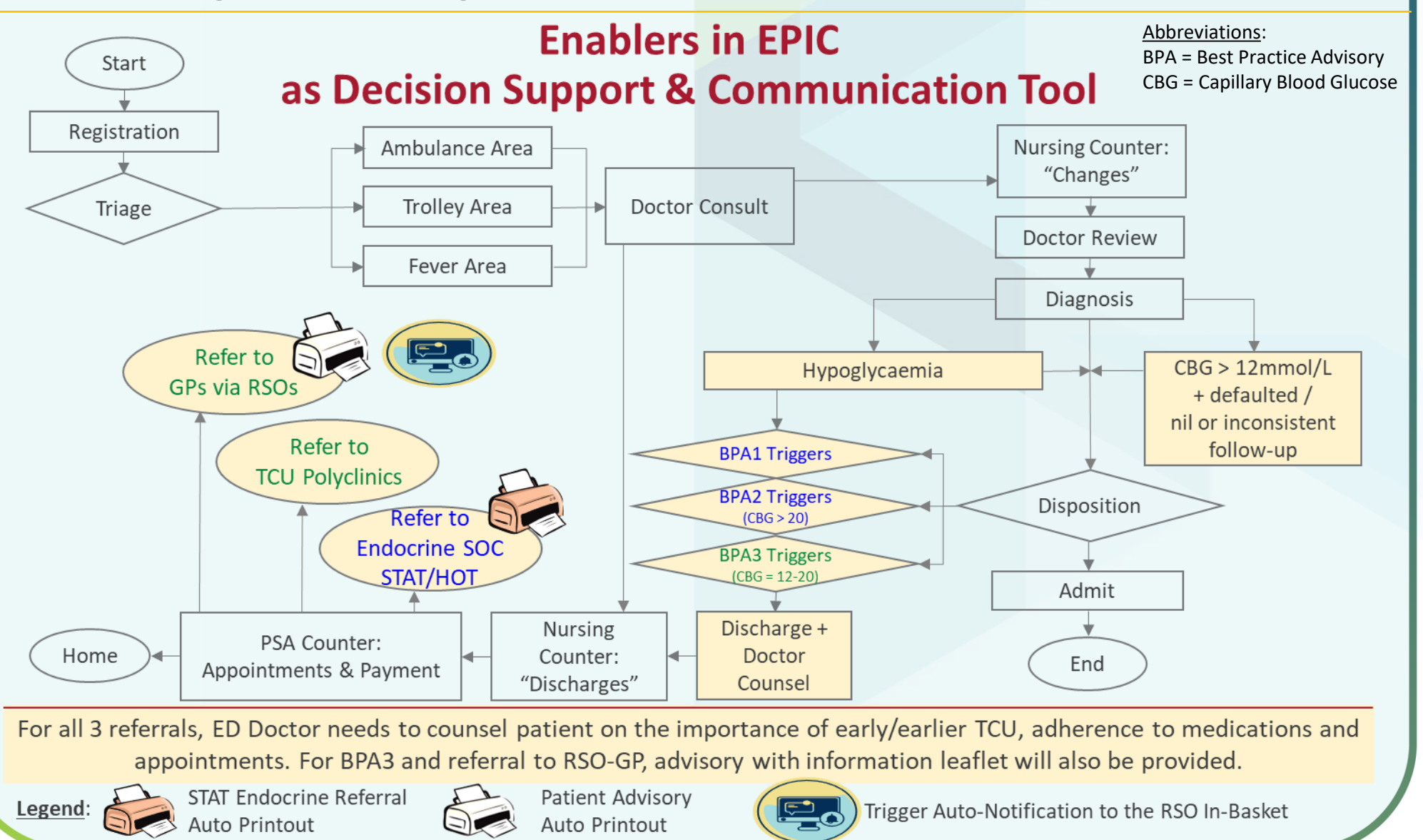
^{^^}DM Care Network: Specialist Outpatient Clinics (SOCs), HOT clinics, Primary Care Providers, Community Health Team, Short Stay Unit.

Lessons Learnt

- Plan-Do-Study-Act (PDSA) cycles allow rapid feedback and testing of changes.
- Understanding the patient's story will help with engagement and change management.
- Designing an effective and efficient counselling script to best engage patients.
- Leveraging upon EPIC to drive sustainability and change.

Potential Solutions

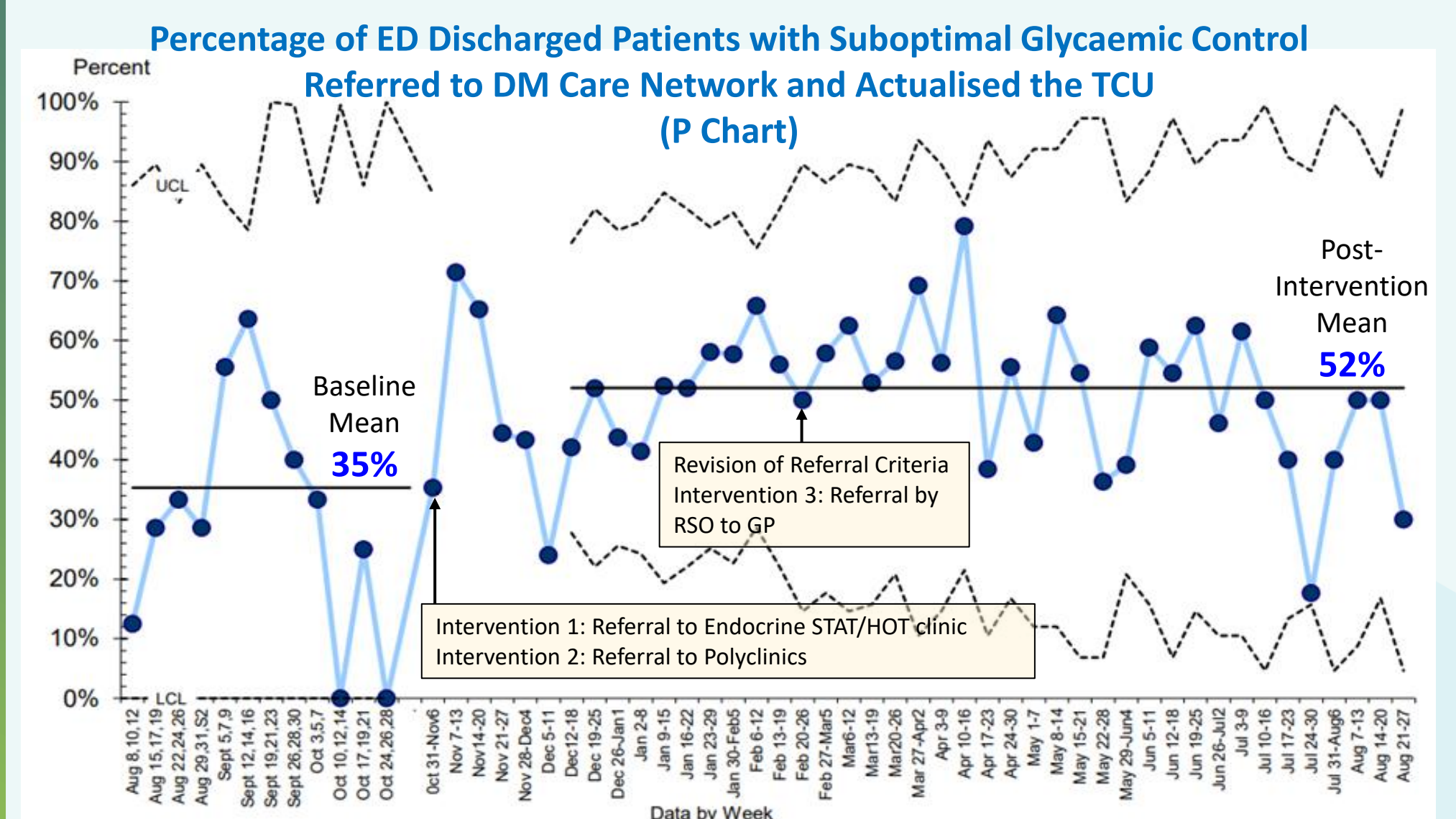
- Build ED-to-Community Pathways**
 - Collaboration with Endocrinology to establish agreed protocols for SOC referrals
 - Collaboration with General Practitioners (GPs) in Primary Care Network
- Just-in-Time Care**
 - ED-to-Endocrinology same day referrals for select group of patients
- Partnerships across care settings**
 - Fixed date appointments with polyclinics
 - Fixed date appointments with GPs via Right-Siting Officers (RSOs)



Outcomes & Impacts

Overall Process Measure: Increased percentage of patients referred to DM care network from **16% to 71%**

Overall Outcome Measure: Increased percentage of patients referred to and actualised appointment with DM care network from **35% to 55%**



Balance Measures: There is no increased rate of unplanned 72 hours or 30 days ED re-attendances or re-admissions and no increase in ED P2 consult wait time