National Quality Improvement Conference

# Increasing the Evaluation of Patients for Familial Hypercholesterolemia (FH) in Toa Payoh Polyclinic

Samuel Tay

samuel_tay@nhgp.com.sg

National Healthcare Group POLYCLINICS

## Problem Statement

Familial hypercholesterolemia (FH) is an autosomal dominant disease that increases the risk of premature cardiovascular disease by 20 fold. Early identification and optimization of treatment using medications reduces this risk by more than 80%. Referral to a specialist also allows for genetic testing and cascade screening of family members. However, FH is severely underdiagnosed due to underscreening.

## Project Aim

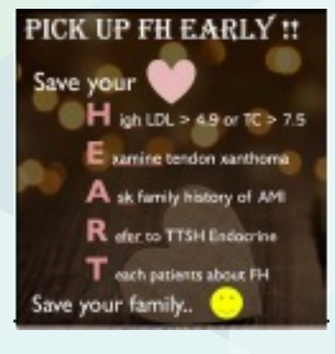
To increase the percentage of patients with LDL > 4.9 mmol/L or TC > 7.5 mmol/L being evaluated for possible or definite FH using Simon Broome Diagnostic Criteria, with Endocrine referral offered if criteria fulfilled, from 12.5% to 100% over 6 months in Toa Payoh Polyclinic.

## Lessons Learnt

1. The outcome of the interventions may be underestimated because most patients, as supported by our patient survey, would not know the lipid values of their relatives or if they have tendon xanthomas. Thus, patient centered interventions could be a focus in future.
2. Constant reinforcement of knowledge is needed to help with sustained change in practice, hence a 1 page summary information sheet was created and distributed to healthcare professionals.

## Potential Solutions

1. Continuing Medical Education programme to educate healthcare professionals about familial hypercholesterolemia and how to evaluate for it during consult.
2. Development of acronym called “HEART” to make the current Simon Broome Criteria easier to remember.



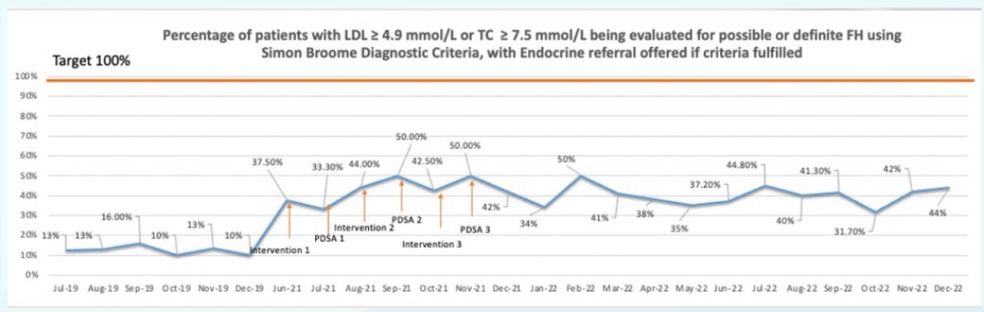

3. Creation of a smart-phrase to flag lipid cut off values during result vetting to remind reviewing doctor to apply evaluation during consult.

LDL > 4.9 or TC > 7.5 fulfilling Simon Broome Criteria .samuelFH

To evaluate for the following during consult:
A) Ask for family history of AMI (1st deg < 60 yrs, 2nd deg < 50 yrs)
B) Examine for Tendon Xanthoma (Archilles tendon, Hands, feet, extensor tendons, knee, elbow)
C) Offer patient referral to endocrine if either A) or B) fulfilled

## Outcomes & Impacts

The project saw a consistent improvement and maintenance in patients being evaluated for FH during consult from baseline of 12.5% to 33-50% over 6 months from July 2021 – Nov 2021. The 12 months post project saw a maintenance of 31.7-50% from Dec 2021 – Dec 2022.




Strategies to sustain include:

- Revision to our institution clinical practice guidelines to emphasize identification of FH
- Institution wide Continuing Medical Education programme
- Converting HEART acronym into QR code for easy access by other polyclinics