

Improving the percentage of screening orders for comorbid cardiovascular and metabolic diseases among patients with gout in Yishun Polyclinic to 100%

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Mission Statement

• To improve percentage of cardiovascular & metabolic disease screening orders among gout patients in Yishun Polyclinic, from baseline average of 52.8% to 100% in 4 months (August 2021 to December 2021).

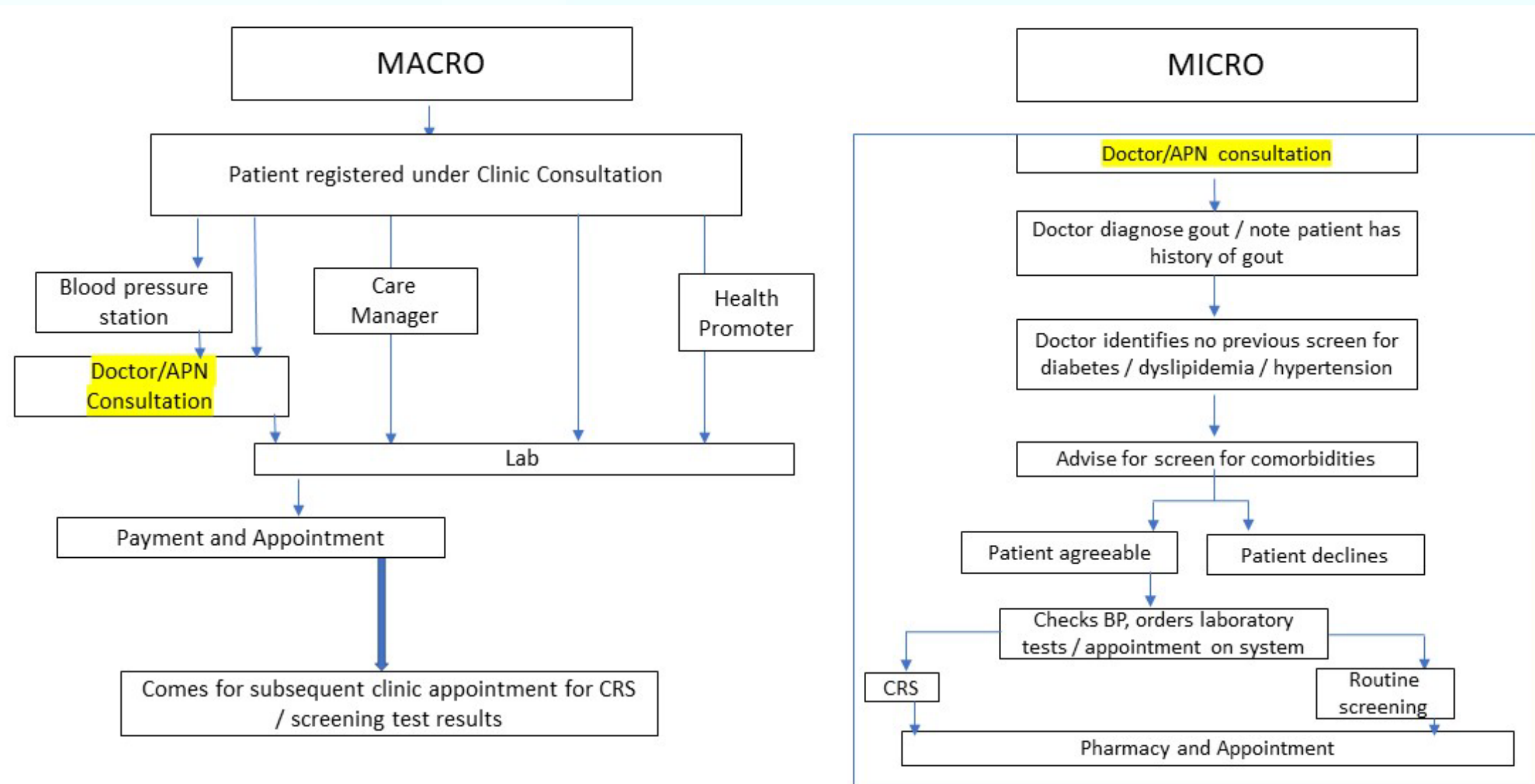
Team Members

	Name	Designation	Department
Team Leader	Teo Ling Li	Resident	Medical
Team Members	Dr Keith Tan	Core Faculty	Medical
	Dr Lim Hong Hwee	Family Physician	Medical
	Ms Tan Cheng Gek	Advanced Practice Nurse and Care Manager	Nursing
	Ms Carmen Goh	Cardiovascular Risk Screening Champion and Care Manager	Nursing
	Ms Chin Ka Mun Carmen	Health Promoter	Health Promotion & Preventive Care
	Ms Nurul Ain Binte Mohd Shahrin	Patient Service Associate	Operations
Sponsor	Dr Kung Jian Ming	Yishun Polyclinic Deputy Head	Medical

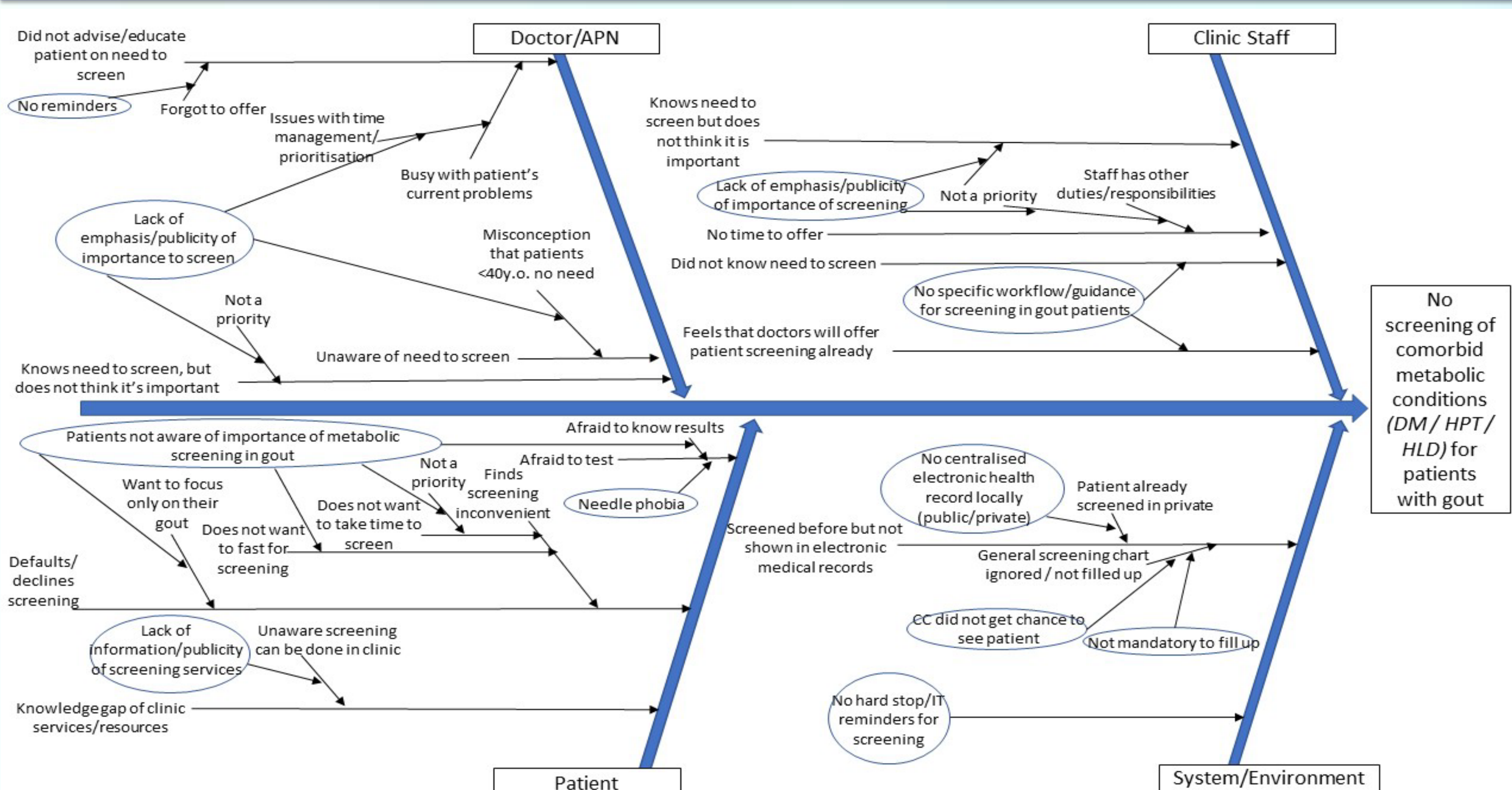
Evidence for a Problem Worth Solving

- In Singapore, the prevalence of gout in 2012 is ~4.1%, commonly managed in primary care. As per local and overseas guidelines, there is a need to screen metabolic and cardiovascular comorbidities in all gout patients. Reasons include (1) increased frequency of such conditions; (2) increased mortality, and that (3) comorbidities (and the drugs) impact management.
- The total baseline percentage of gout patients who have had screening ordered for such comorbidities in Yishun Polyclinic is between 44-65% (average of 52.8%) from May to July 2021.
- The aim is for a stretch goal of 100% in all gout patients in view of the importance of such screening in gout patients.

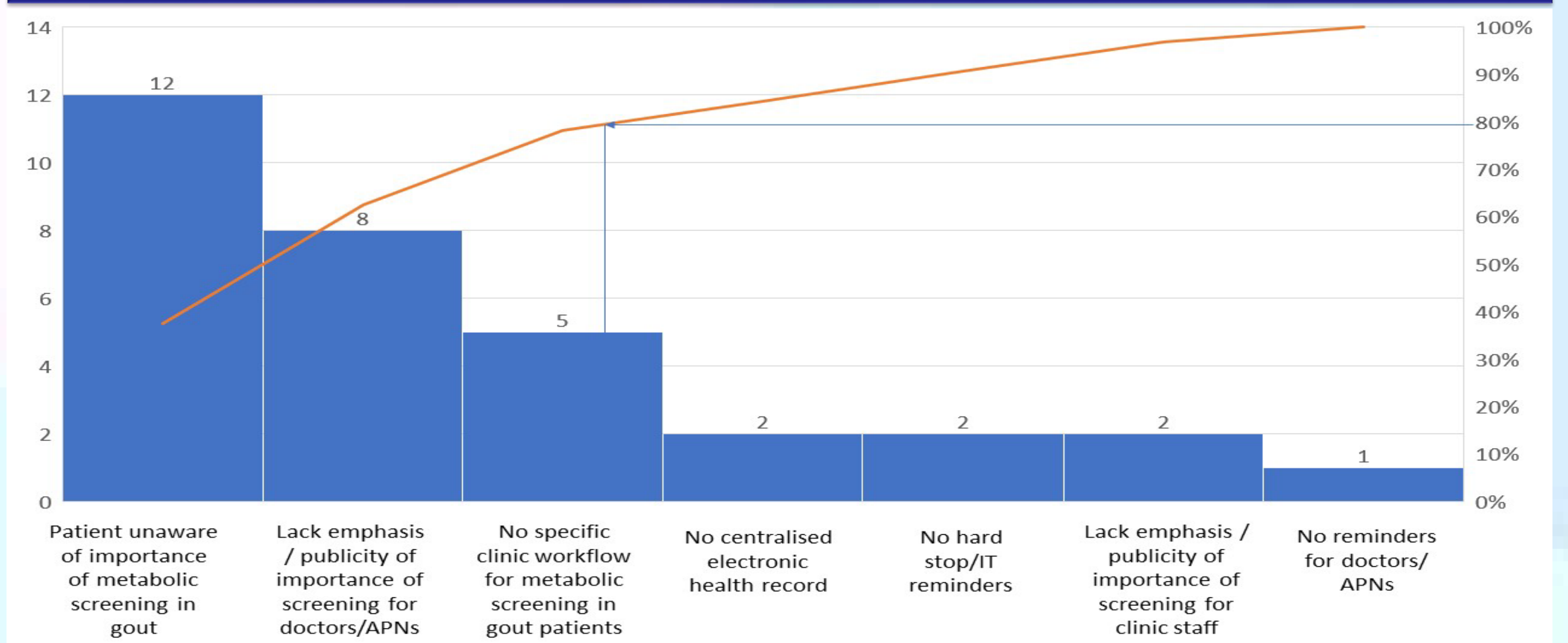
Flow Chart of Process



Cause and Effect Diagram



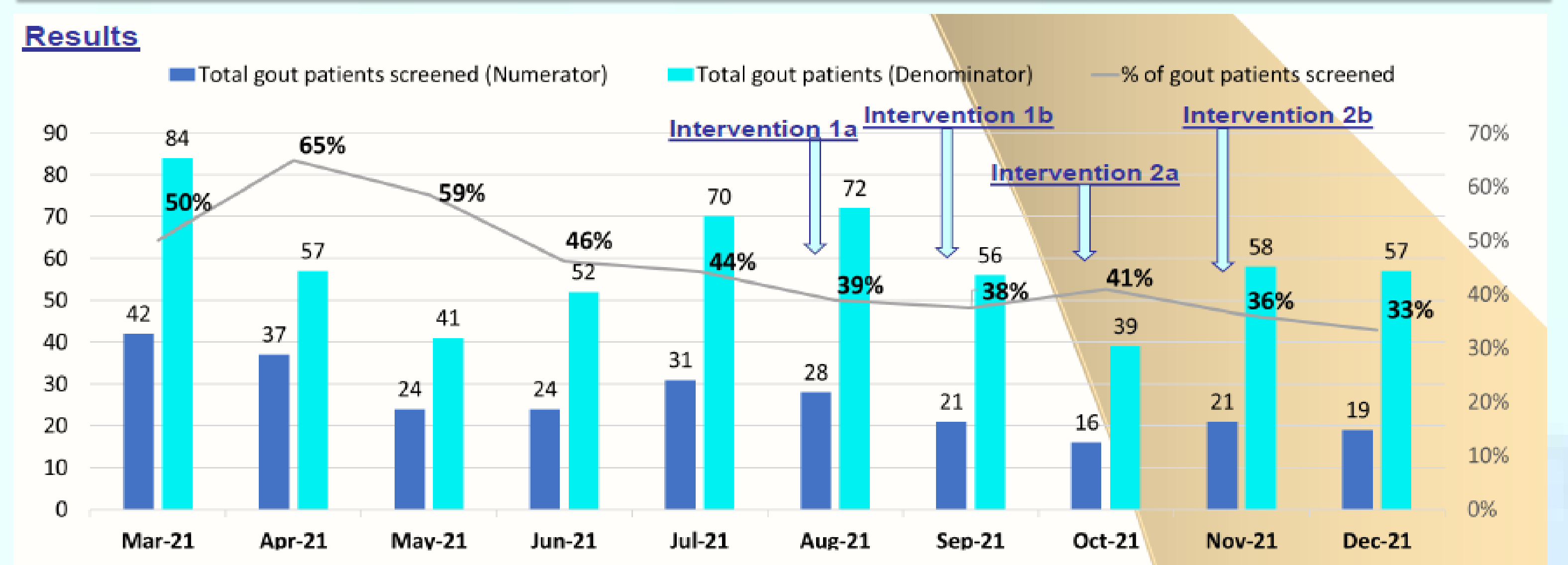
Pareto Chart



Implementation

No	Plan	Do	Study	Act
1a	Increase emphasis/publicity to doctors/APNs of screening importance	3 Aug 2021 Virtual teaching talk to doctors and APNs in Yishun	Participants feedback Difficulty remembering screening during busy clinic hours	Addition of intervention
1b	Reminder to offer screening for gout patients during clinic hours	1 Sep 2021 Daily visual cue: reminder cards on all clinic work computers	Staff feedback Visual cues well placed, served as good reminders	No further modifications Practice continued.
2a	Increase awareness of importance of metabolic screening in patients with gout	1 Oct 2021 Visual stimulus: e-Posters on polyclinic TV screens	Patients feedback Not eye-catching. Difficulty in reading small words	Addition of intervention
2b	Improving and modifying the visual stimulus for patients	1 Nov 2021 Poster redesigned: more eye-catching. Added posters on QueueTV rotation.	Patients feedback More patients noticed poster, most found information relevant, easy to understand	No further modifications Practice continued.

Results



Problems Encountered

- Some gout patients may have screening elsewhere, not captured in our data. Manual random screen done of baseline data of 50 gout patients who did not have screening ordered – found an estimate of 54% of our baseline data presumed to be an accurate reflection of the truth.
- Presumption that screening orders are equivalent to actual screening rates. Manual random screen of 20 patients included in the data found 19 (close to 100%) of them actualizing their screening orders. As they are small samples, these estimates might truly represent the actual situation.
- Suspension periods of CRS/Health Promotion and Preventive Care screening services during COVID-19 heightened alert period could limit non-essential screening tests ordered for gout patients.
- NGEMR EPIC system commencement on 2nd May 2021 could have led to fewer e-orders by doctors/APNs of screening tests for gout patients due to unfamiliarity of the new IT system and restricted appointment slots for patient follow-up
- Duration of project short – limited time for sustainable changes, including working on my 3rd top root cause identified in my Pareto chart
- Patient perspective lacking

Strategies to Sustain

- External comorbidity screening should be fully accounted for in the data.
- Gout patient(s) included in the team to provide valuable perspective/insight on ways to optimize patient awareness of importance of comorbidity screening.
- Actualization of comorbidity screening should be fully accounted for, helping to work towards goal of increasing actual screening rates.
- Comparison of data in Yishun polyclinic with other polyclinics nationwide will help in setting a realistic target for improvement.
- Conducting project over a longer duration of time to work on all of the major top root causes identified, and conduct further interventions/PDSA cycles, to achieve a more sustainable and impactful quality improvement in the interventions.