Reduce Incidences of Stool Results Unavailable on TCU

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Sengkang General Hospital — SingHealth

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Background

In the SKH Gastroenterology clinic, outpatient stool tests are ordered prior to consultation. Patients are to submit stool samples at least 2 weeks before doctor's appointment ("TCU") for results to be processed and out in time. However, 28.6% of stool results are unavailable by TCU day. (avg ~ 24 tests/month)
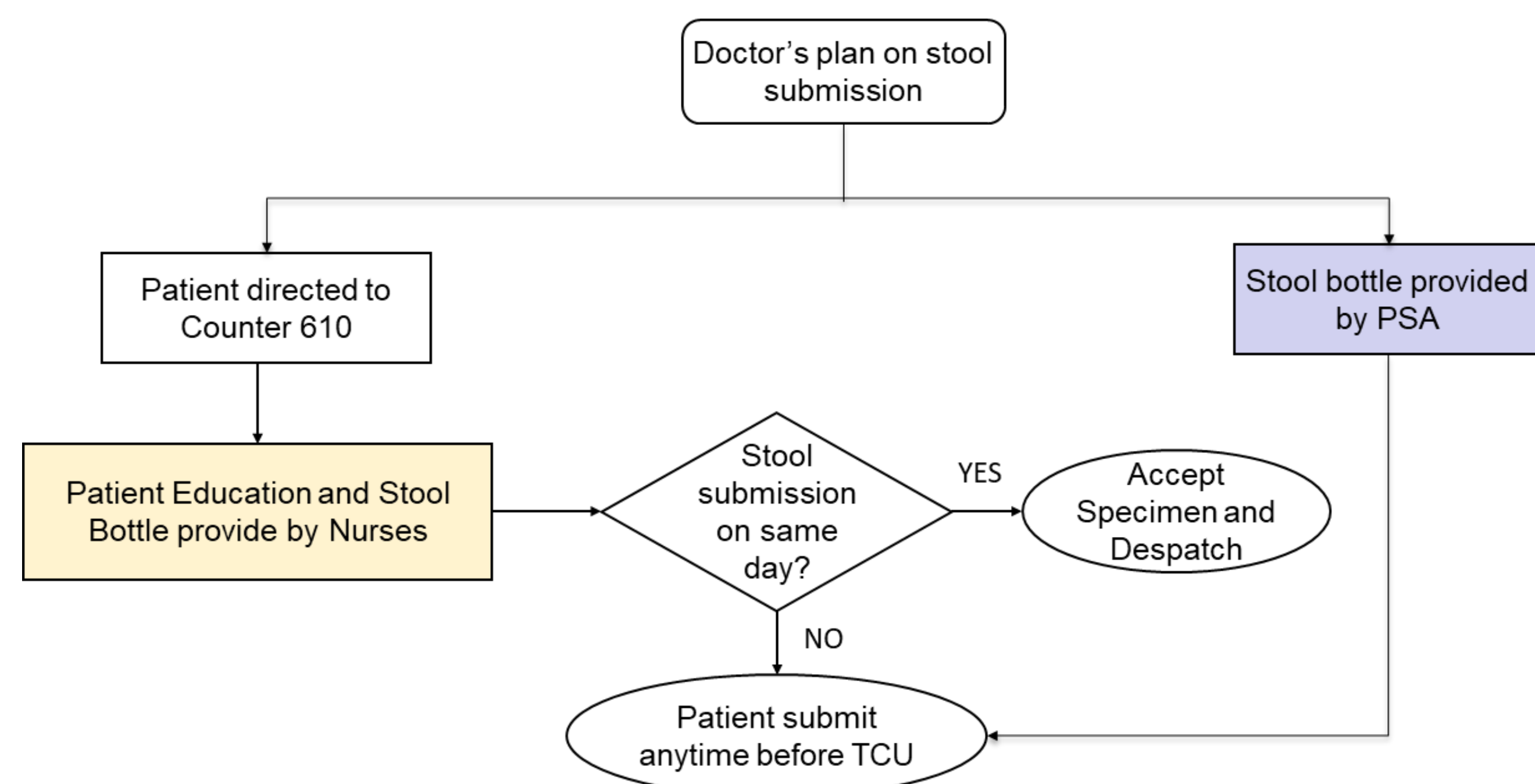This results in:
- More follow up clinic appointments so to ensure that results are available
- Potential delayed diagnosis and care
- Reduced patient satisfaction

Baseline / Previous State

The team observed large variability in the workflow for stool sample collection such as,
- Different instructions given by different clinic staff members
- No standardization of instructions
- Instructions can be confusing to the patients
- These may contribute to delayed sample collection and processing

Root Cause Analysis

Using the above tree diagram and pareto chart, it was identified that "Forgot to submit stool" and "Walk-in / email enquiry on stool test" has the highest incidence which was attributed to the open date sample submission and missing input by room assistant in the message Q-Bubble when to submit, hence patients had to clarify when to collect stool samples.

Goals / Targets

To reduce the incidence of "stool results unavailable" on the doctors' follow-up appointment day by 60% within 12 months.

Interventions / Initiatives

**Improved workflow with documented Stool submission plan and TCU booked**

1. Doctor will order stool test for patient in SCM
2a. PSA to book appointment for stool submission (Table 1) in OAS

2b. PSA direct patient to Counter 610 and indicate in 1-Q "collect stool bottle"
3. Nurse to check CPOE order on the type of test ordered
   - Check if there is a need to clarify with doctor on the stool submission plan
4. Nurse to hand out stool bottle
5. Nurse to document in Nur PFER the number of stool bottle provided

Colour codes that address the pain paints identified:

- [Doctor's recommended timeline for stool submission not advised]
- [No appointment booked for stool submission]
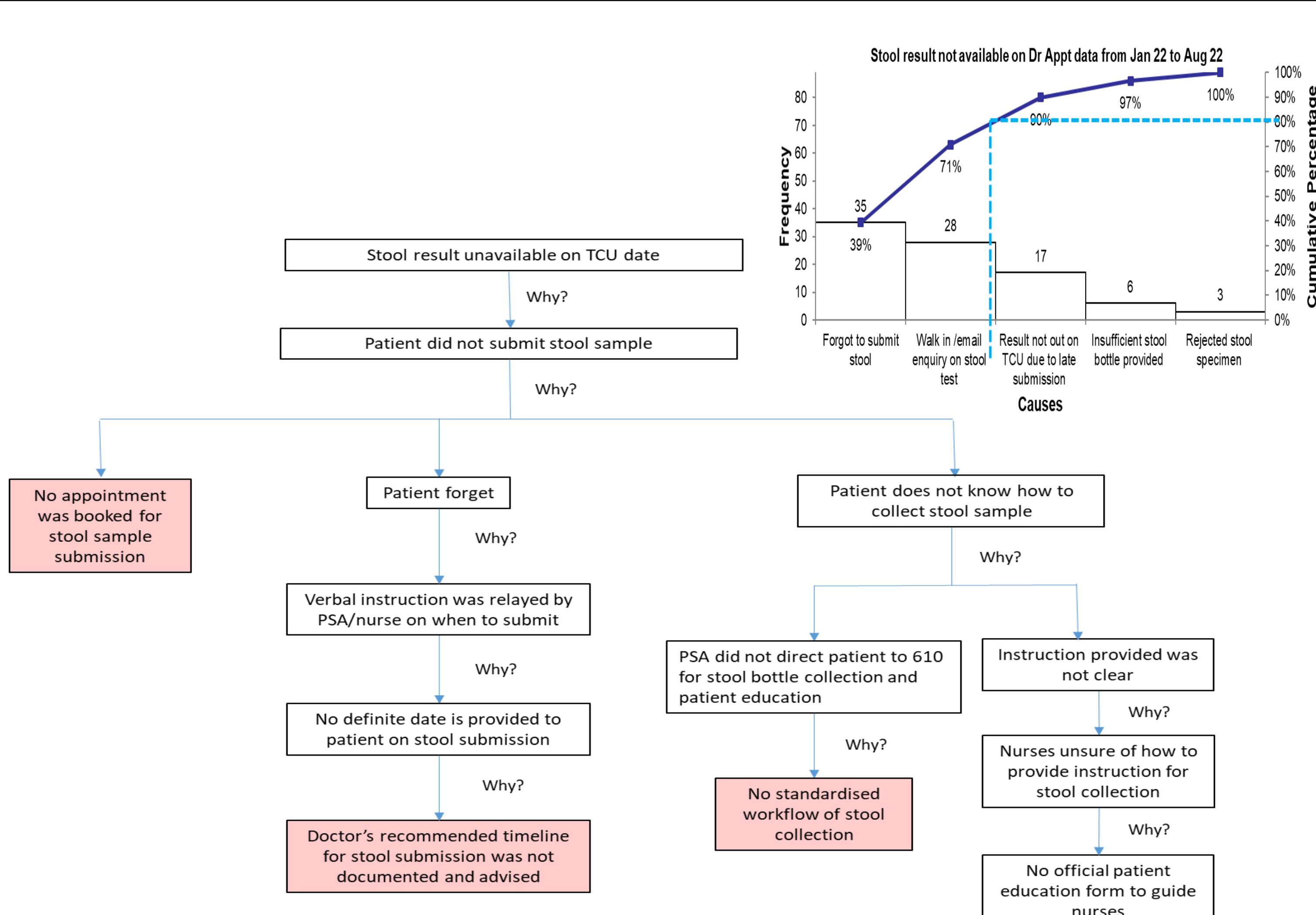- [No standardised workflow for stool collection]
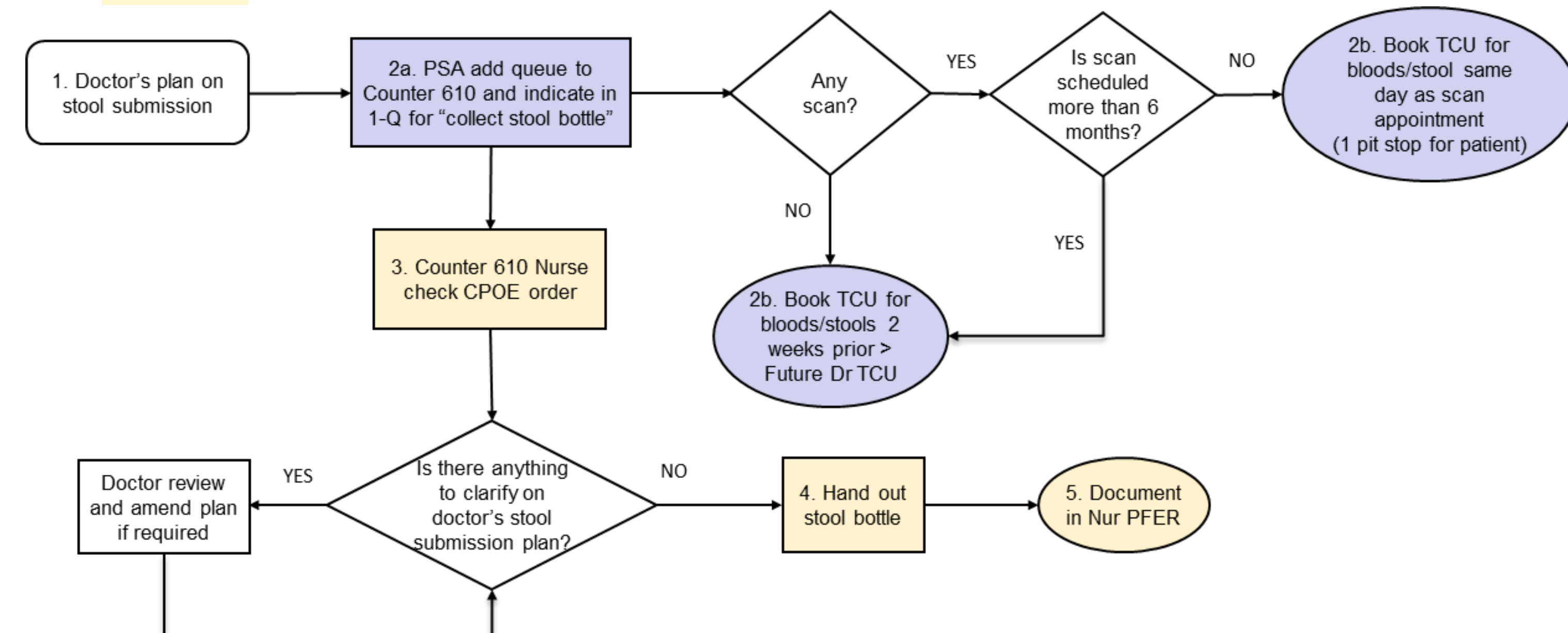
Results / Follow up
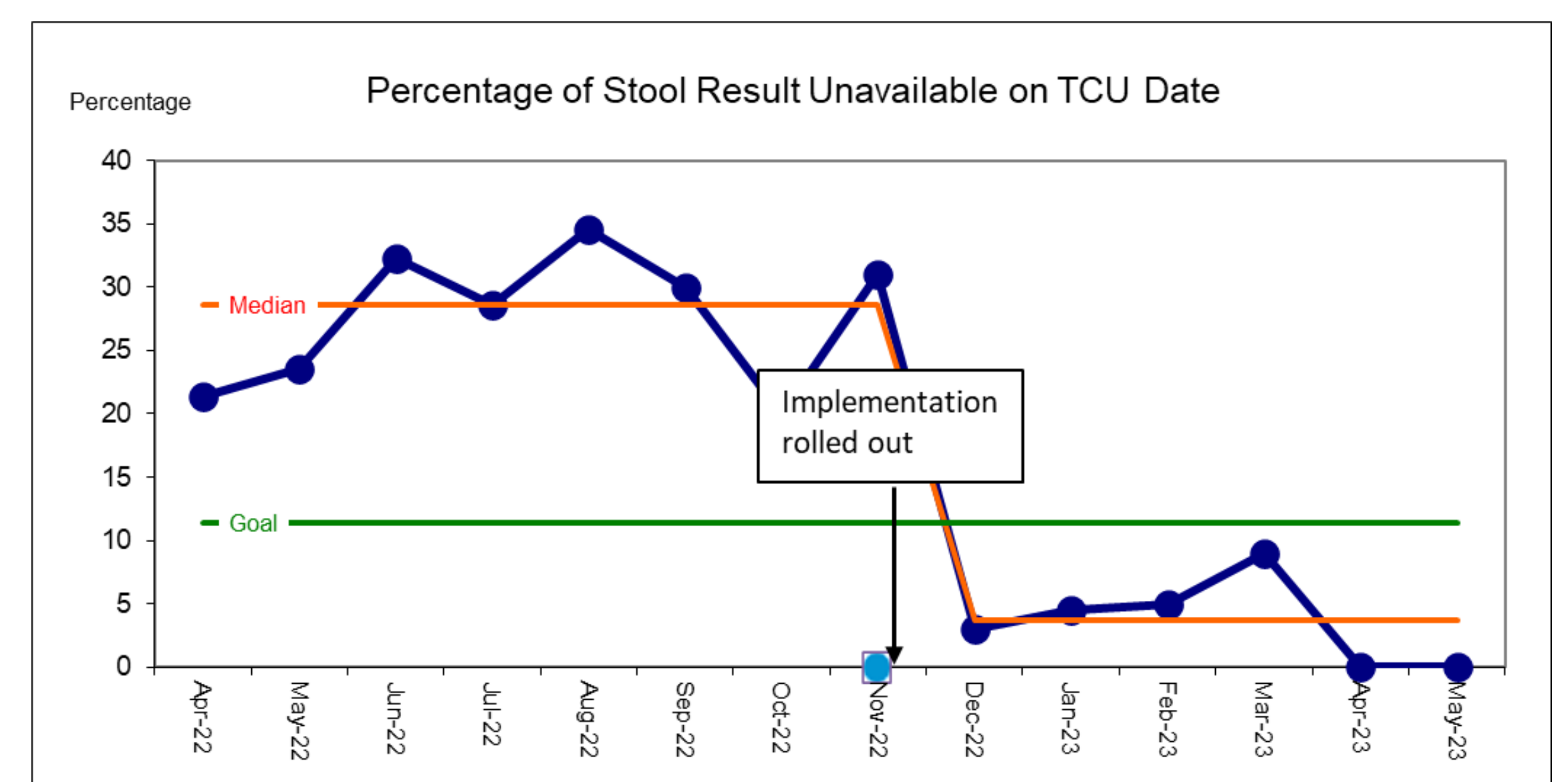
The percentage of stool result unavailable on TCU date showed significant **reduction by more than 65% from the baseline median** of 28.6% to 3.75% ever since implementation rolled out in Nov 22. Percentage of stool results unavailable for every month was consistently kept below 10% and sustained for at least 6 months.

By providing a fixed date for stool submission, doctor would be able to review result sooner, allowing **quicker intervention in patient care** if needed. The patient **journey becomes seamless** with less enquiries and wasted trips for patients due to unclear stool collection workflow. **In future**, our team plans to **spread this improved workflow** to endoscopy and inpatient wards. Also, continuous effort has to be made to educate and remind patients the proper way of collecting stool so that samples will not be rejected and contributing to unavailable results on TCU.