

## **Project Title**

Reducing interventions related to post-consult medication requests at pharmacy

## **Project Lead and Members**

Project lead: Huang Yu-chu, Vera, Senior Pharmacist

Project members: Tan Min Feng, Senior Pharmacist

## **Organisation(s) Involved**

Ng Teng Fong General Hospital

## **Project Period**

Start date: 2018

Completed date: Apr 2019

## **Aims**

To reduce the median number of interventions for patient-requested medications by 50% for Orthopaedic Clinic within 6 months starting from August 2018.

## **Background**

See attached

## **Methods**

See attached

## **Results**

See attached

## **Lessons Learnt**

We have learnt that starting with one area, tackling one issue at a time is important. It is a good experience of learning. Many quality improvement tools were used. Visual chart acts as a visual cue to prompt patients to ask about such medications and

facilitate communication between patient and physician. Expanding use of customized visual charts to other clinics after extracting list of common medications requested at pharmacy post-consult will reduce incidences further. However, sometimes some patients' requests are rejected by doctors, especially those requesting more pain killers in Orthopaedic Clinic. In this respect, educating patients on the short-term nature of acute medications may be useful, as some patients may have the wrong impression that all medicines need to be taken regularly.

## **Conclusion**

See attached

## **Additional Information**

Visual chart is not a direct answer to reduce patient requests, and it does not solve all the root causes. However, it is an aid for clinic service, so it is well accepted by doctors and patients. This is the reason that it is workable.

Overall, the usage of visual chart improves the communication between doctors and patients during consultation, and it reduces the incidences that patients request medication after consultation at pharmacy.

## **Project Category**

Care Redesign, Workforce Transformation

## **Keywords**

Care Redesign, Workforce Transformation, Quality Improvement, Improvement Tool, Fishbone Diagram, Plan Do Study Act, Outpatient Pharmacy, Orthopaedic, Waiting Time, Workflow Improvement, Patient Journey, Patient Satisfaction, Ng Teng Fong Hospital, Visual Charts, Post Consultation, Medication Request

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# REDUCING INTERVENTIONS RELATED TO POST-CONSULT MEDICATION REQUESTS AT PHARMACY

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## Define Problem & Set Aim

### Problem Statement

From January to December 2017, outpatient pharmacists performed an average of **491 interventions per month**, of which **78** were due to **patient requests (15.9%)**.

Requested medications may be omitted due to human, system or process shortcomings, such as omission of the request or inaccurate medication ordering, miscommunication and others.

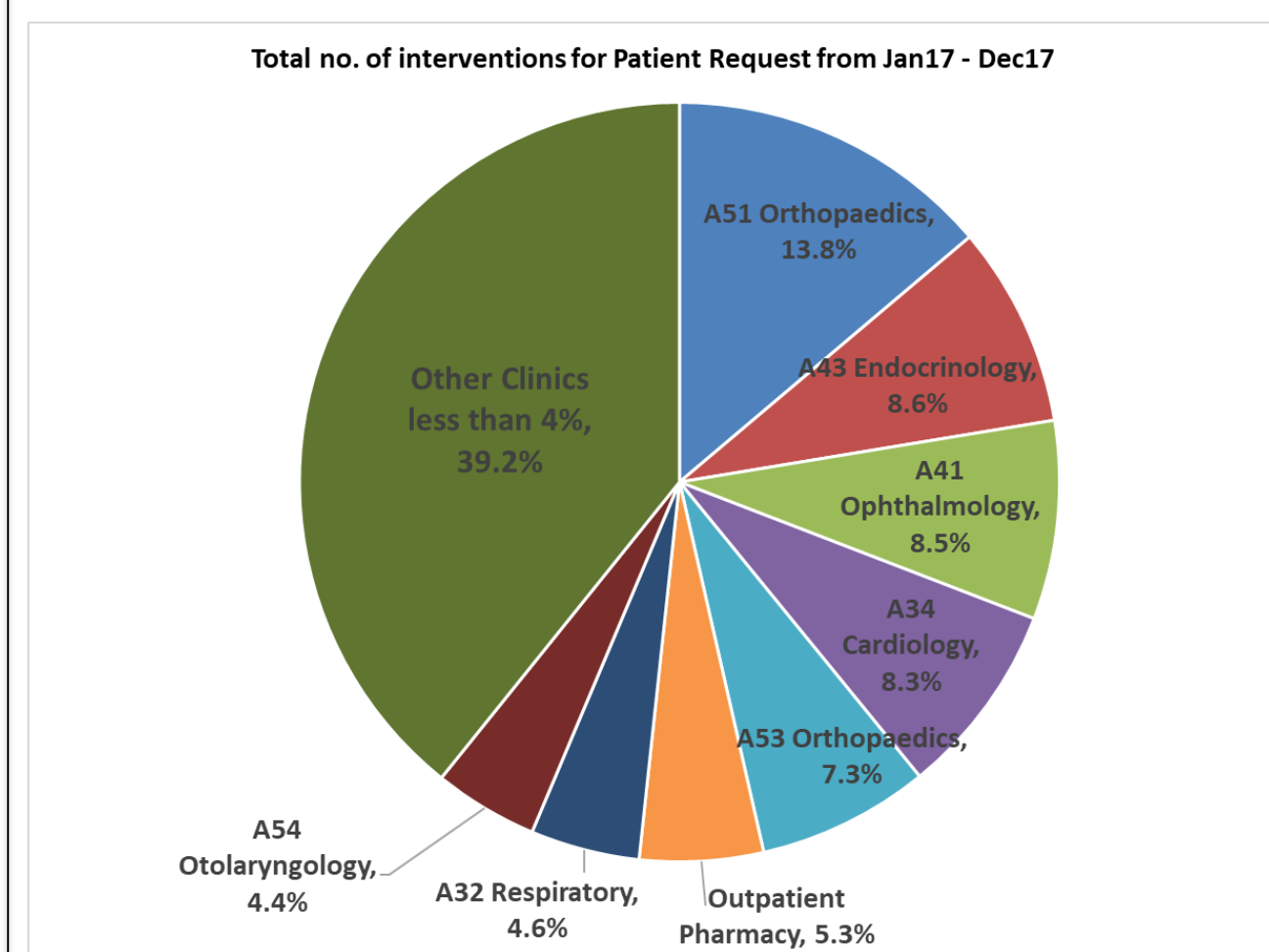
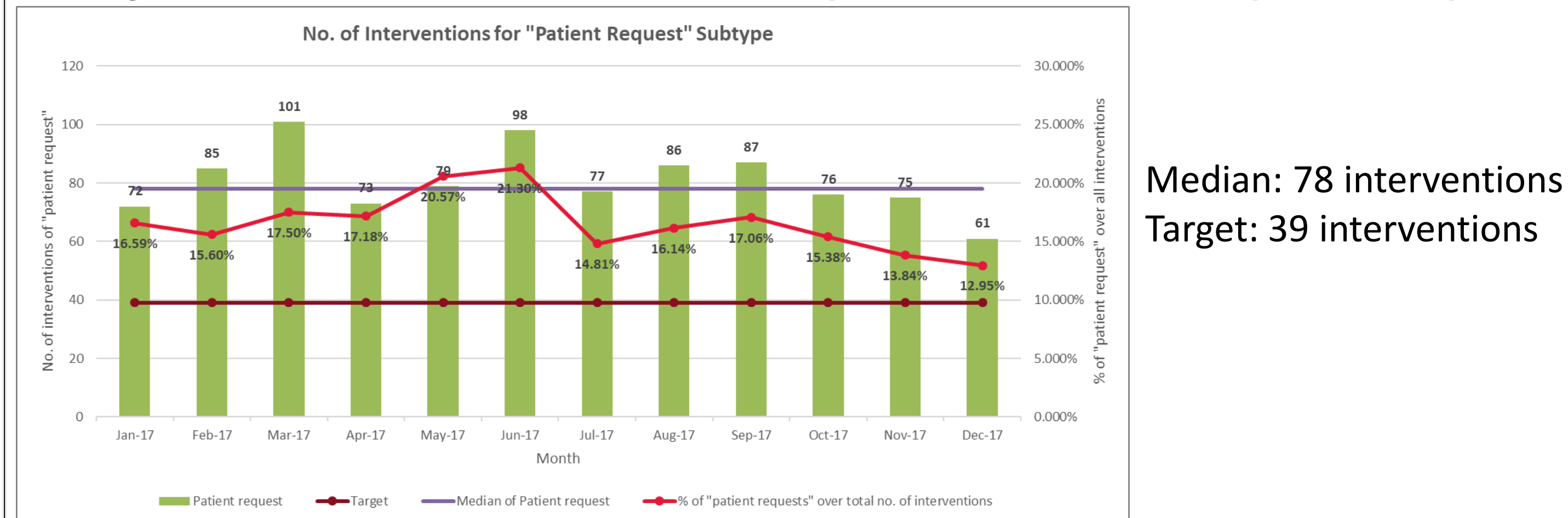
Interventions due to patient-requested medications resulted in pharmacists having to repeat the ordering, reviewing and packing processes of the prescription which were completed earlier. An additional 234 hours per month was spent on rework, leading to longer waiting time for collection of medications. Patient and staff satisfaction were affected as a consequence.

### Aim

To reduce the median number of interventions for patient-requested medications by **50%** for Orthopaedic Clinic within 6 months starting from August 2018.

## Establish Measures

Fig. 1.1 No. of non-clinical interventions related post-consult medication requests at the pharmacy



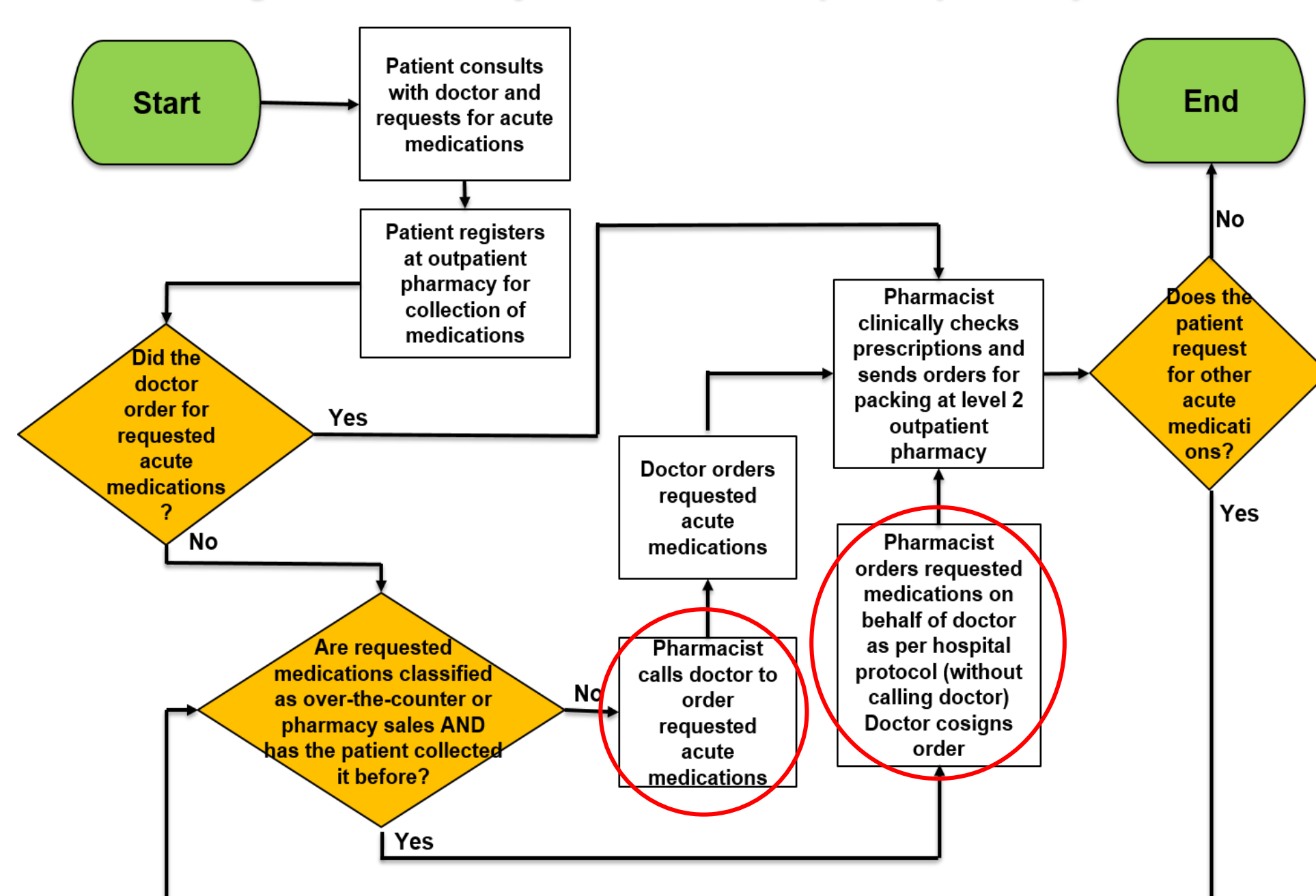
Initial focus on A51 Orthopaedic Clinic, the clinic with the highest number of interventions for patient-requested medications.

Clinic	Patient Request	% of Patient Request
A51 ORTHOPAEDICS	134	13.8%
A43 ENDOCRINOLOGY	83	8.6%
A41 OPHTHALMOLOGY	82	8.5%

Fig. 1.2 Distribution of interventions due to post-consult medication requests at the pharmacy

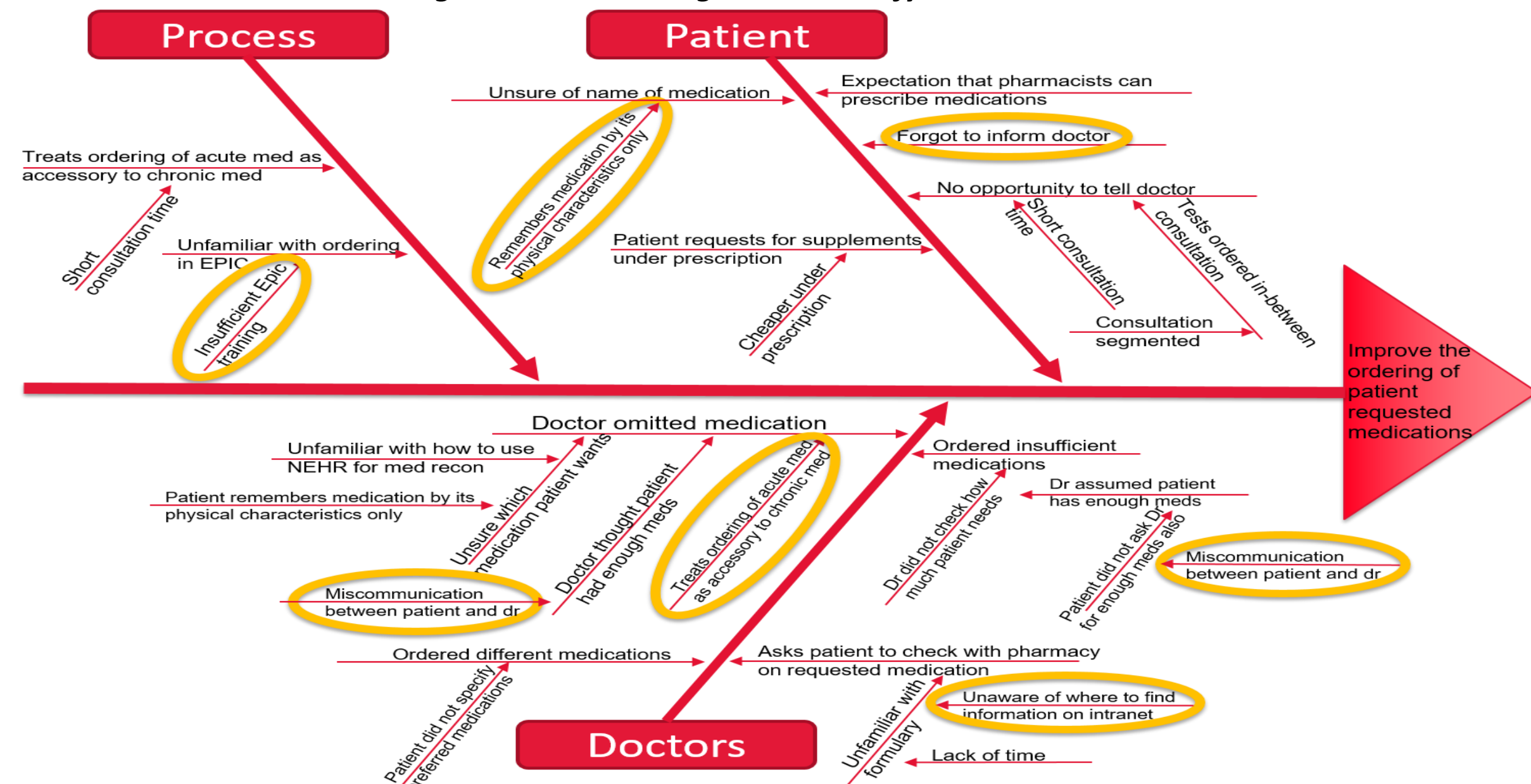
## Analyse Problem

Fig 2.1: Collection of medications at outpatient pharmacy



- 1) Time is wasted due to pharmacists contacting the doctor to prescribe omitted patient-requested medications or documenting in notes if ordering for top-up on behalf of doctor.
- 2) Further time is spent amending the prescription and repeating the processes.

Fig 2.2: Fishbone diagram to identify root causes



## Select Changes

Root Causes	Potential Solutions	Potential solutions were evaluated by:
Patient forget to inform doctor on request for acute medication	1 Poster on consult room door to remind patient to discuss their medications with their doctor before leaving room	Potential solutions were evaluated by: <b>1) Ease of implementation,</b> <b>2) Impact rate</b>  The visual chart was rated highest out of the 3 solutions and was thus chosen for our 1 <sup>st</sup> PDSA Cycle.
Miscommunication between patient and doctor	2 Visual chart of commonly prescribed medications in A51 and A53 orthopaedics	
Patients remember medications by physical characteristics only (e.g. colour and shape)	3 Adding shortcut on doctors' desktops that links to hospital drug listing	

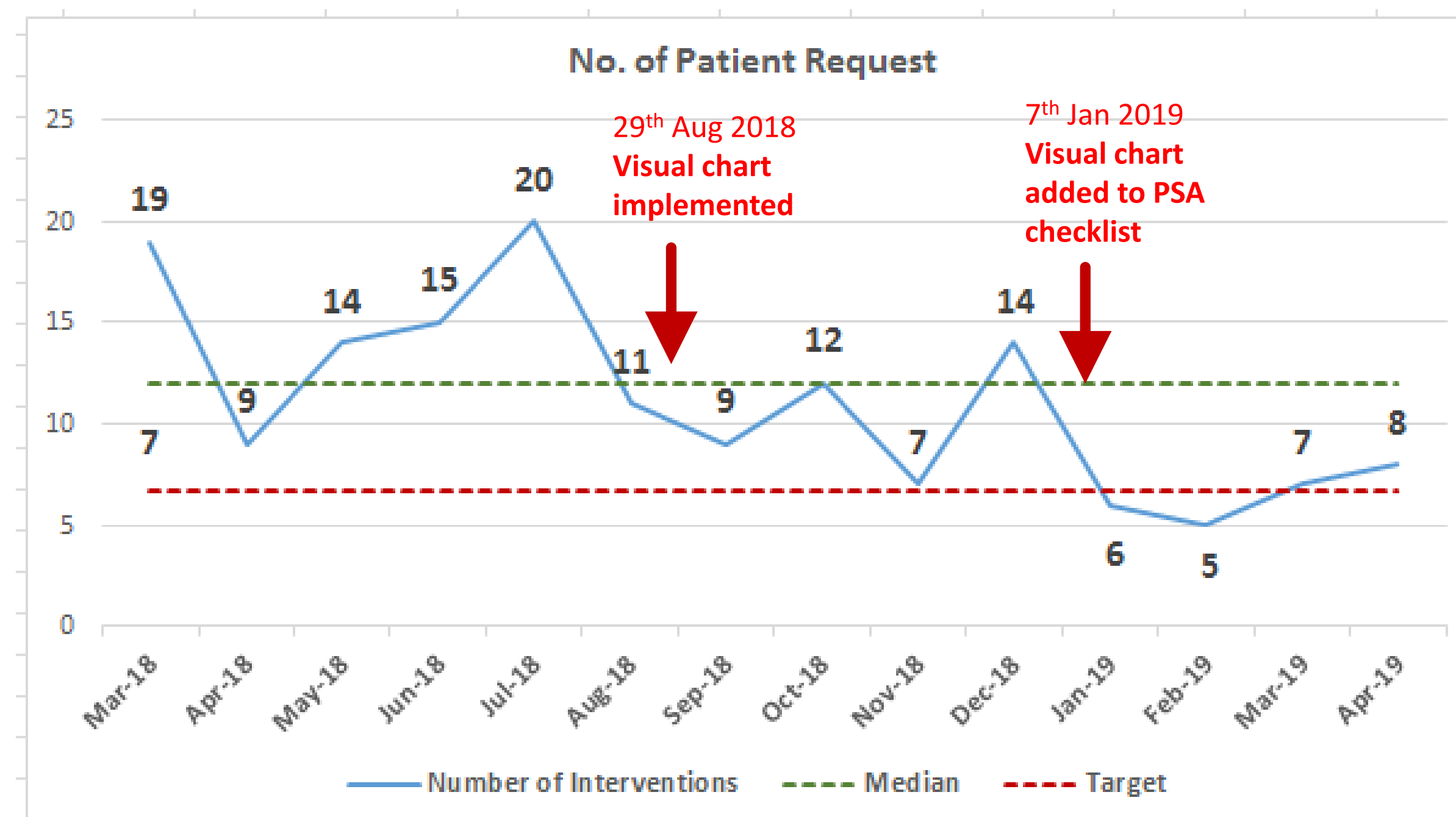
Fig 3.1: Visual Chart used in orthopaedic clinic



## Test & Implement Changes

CYCLE	PLAN	DO	STUDY	ACT
1 (Initiated 29 <sup>th</sup> Aug 2018)	Reduce the median number of interventions for patient-requested medications for Orthopaedics clinic from 13.5 to 6.75 (50%)	Visual Chart of commonly prescribed medications by Orthopaedics team	22.22% decrease in median of interventions related to "Patient Request" (from 13.5 to 10.5)  (-) Clinics misplaced charts	Adapt and work with clinic executives
1.1 (From 7 <sup>th</sup> Jan 2019)	Increase accessibility of visual chart	Include display of visual chart into PSA daily opening checklist	48.15% decrease in median of interventions related to "Patient Request" (from 13.5 to 7)  (+) Visual chart was perceived as useful by patients for purpose of communication (-) Doctors unaware of chart or did not see a need to use	Meeting with Orthopaedics doctors to brief on the visual charts and get their buy-in.

Fig 4.1: Target for Patient Request in Orthopaedic Clinic



## Spread Changes & Learning Points

### What are the strategies to spread change after implementation?

- Design different visual charts, tailoring to the needs of other clinics
- Collaborate with all relevant parties to increase awareness and buy-in

### What are the key learning points?

- Identify all involved parties and inform them of the changes made
- Feedback is important in identifying problems with the "change" to facilitate improvements

### Conclusions and Future Direction

- Visual chart acts as a visual cue to prompt patient to ask about such medications and facilitates communication between patient and physician.
- Educating patients on differences between chronic and acute medications and supplements can be a future intervention to consider. This reduces the misconception that all medications are to be used long term
- Expanding use of visual charts to Endocrine and Ophthalmology clinics after extracting list of common medications requested at pharmacy post-consult, will further reduce future requests.

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