

I CAN MANAGE MY GOUT FLARE!

Improving provision of gout rescue self-medications

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Define Problem, Set Aim

Problem Statement

Only 1 in 5 general medicine patients in NTFGH were prescribed appropriate standby medications for gout flares between Oct 22 to Apr 23.

- Falls short of **international guideline recommendations** that all with gout should have and be educated on standby self-medications
- A delay in initiating rescue medications for a gout flare **lengthens the flare** from just a few days to several weeks and with **increased severity**
- Contributes significantly to **work absenteeism**, increased **acute clinic or emergency visits** or **inpatient admissions** (potential cost to patient ~\$20-\$5000 per episode)

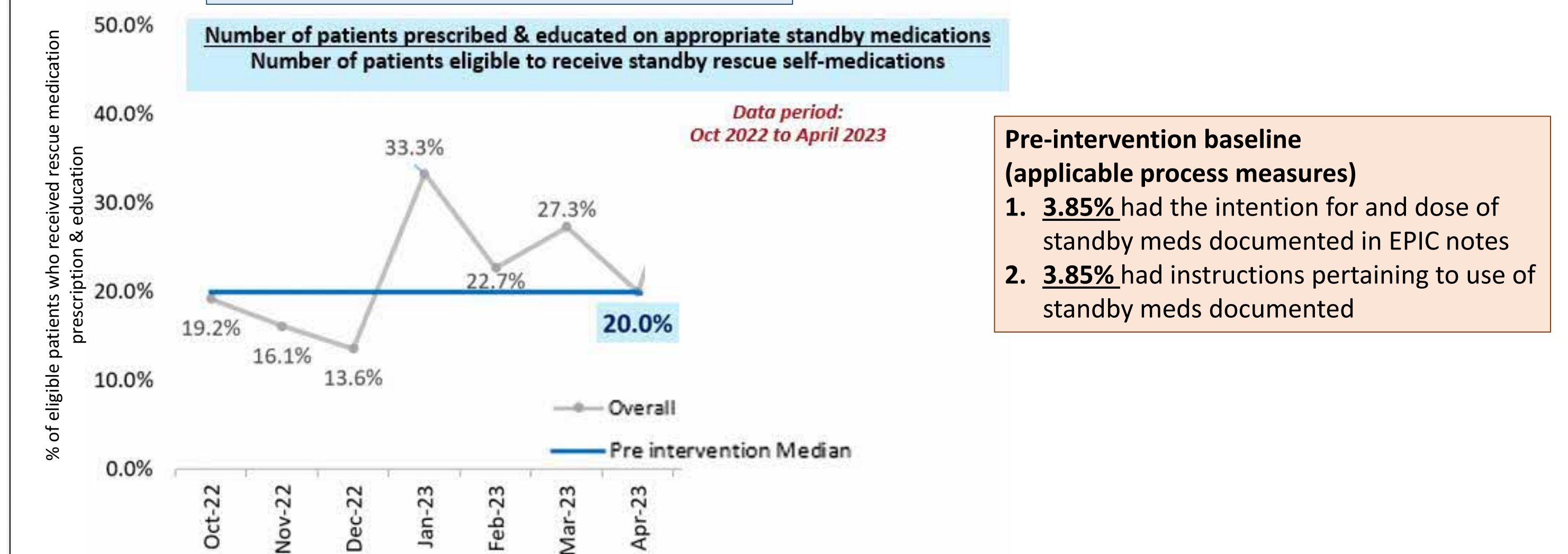
Aim Statement

To increase provision of and education on appropriate gout rescue self-medications on discharge for patients admitted to NTFGH general medicine for gout from 20% to 50% in 6 months

Establish Measures

	Description	Operation Definition
Outcome Measure	% of patients admitted to NTFGH general medicine who are prescribed & educated on appropriate standby medications on discharge	No. of general medicine inpatients prescribed & educated on appropriate standby medications No. of patients eligible to receive standby rescue self-medications
Process Measures	% of patients with the intention for and dose of standby medications documented in EPIC notes	No. of general medicine inpatients with documented intention for & dose of standby medications No. of patients eligible to receive standby rescue self-medications
	% of patients with instructions pertaining to use of standby rescue meds documented	No. of general medicine inpatients with instructions pertaining to use of standby meds documented No. of patients eligible to receive standby rescue self-medications
	Efficacy of counselling with patient information leaflet	Post counselling survey results for change in confidence in gout rescue self-medication (pre & post-counselling), and usefulness of counselling
Balancing Measure	Healthcare providers' (doctors, pharmacists, nurses) time and added workload	Feedback obtained via interviews and informal discussion with involved parties

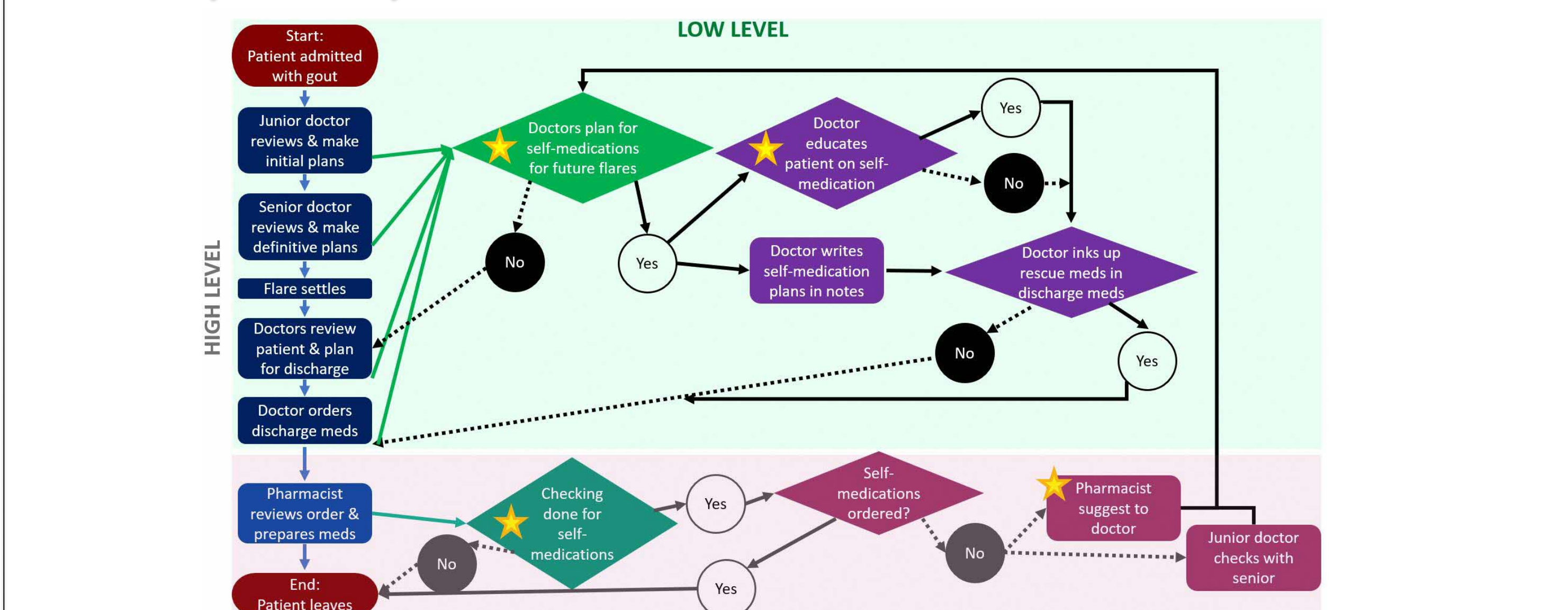
Pre-intervention baseline (outcome measure)



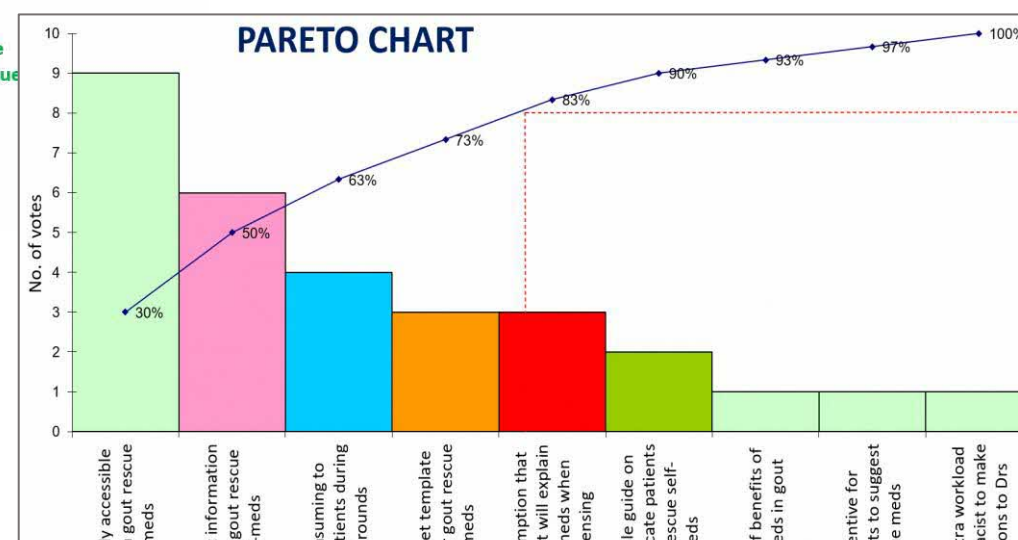
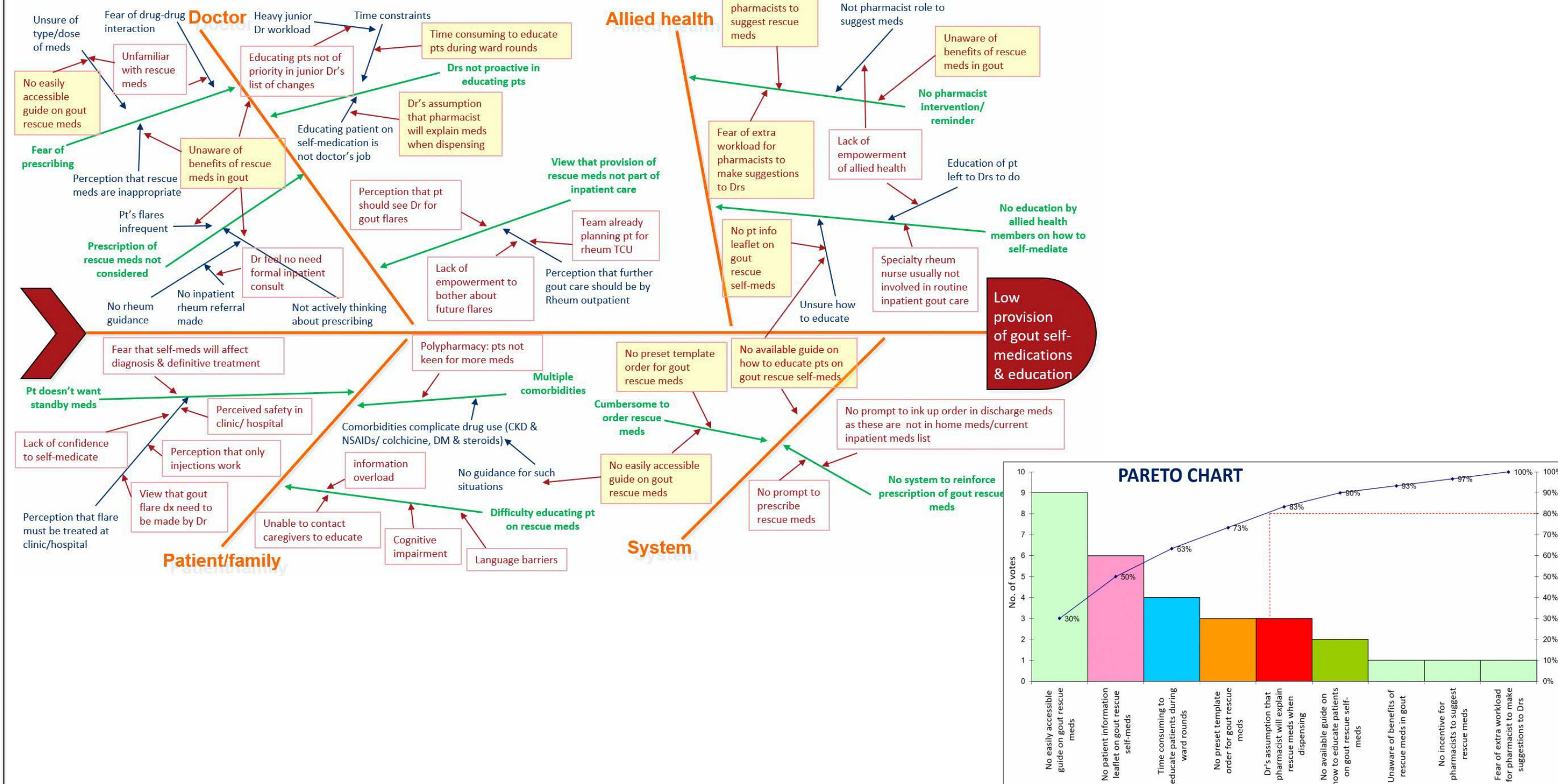
- Pre-intervention baseline (applicable process measures)**
- 3.85% had the intention for and dose of standby meds documented in EPIC notes
 - 3.85% had instructions pertaining to use of standby meds documented

Analyse Problem

Process map: current process



Root causes

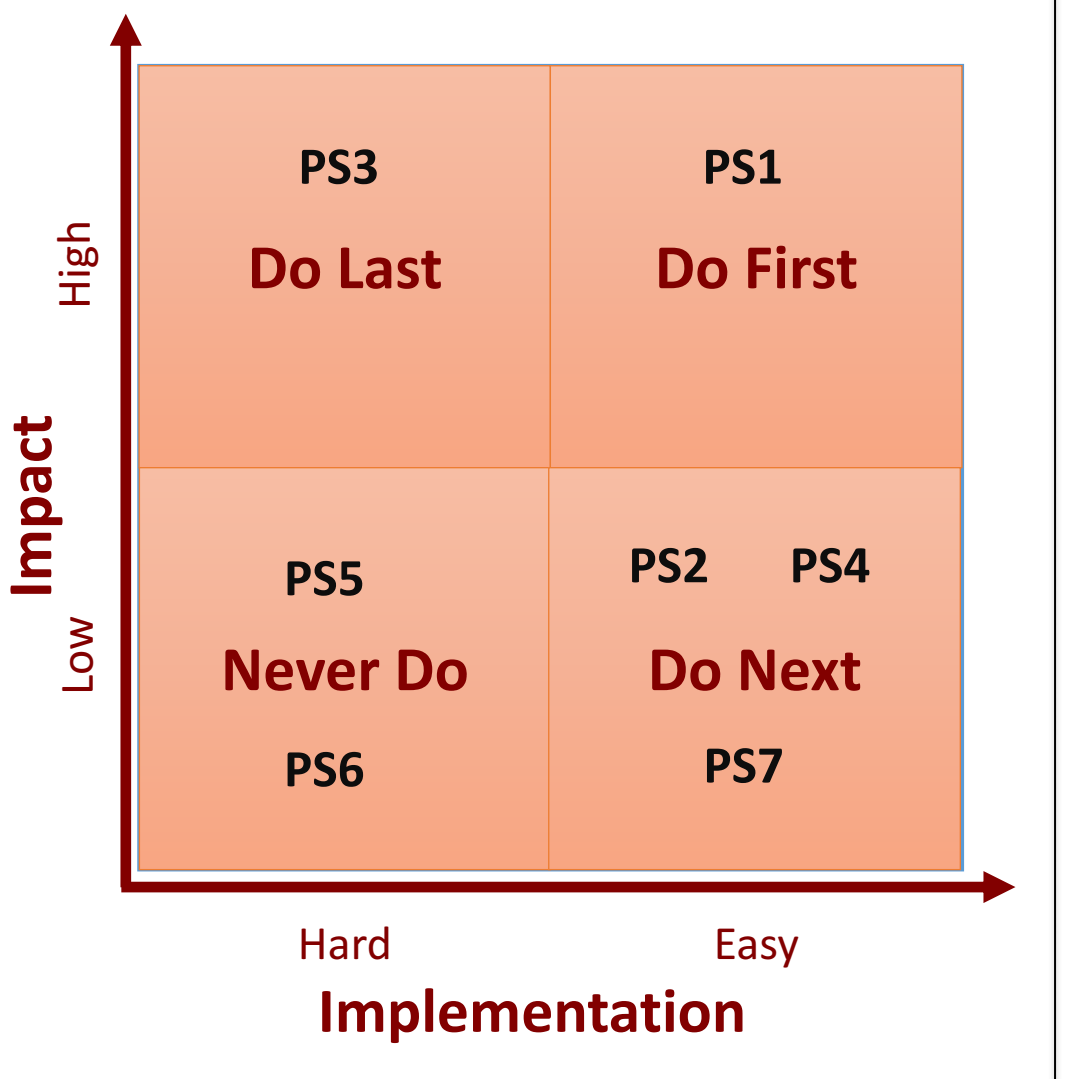


- WORKPLACE / PATIENT SAFETY
- PATIENT EXPERIENCE
- INNOVATION AND PRODUCTIVITY
- GREEN & SUSTAINABILITY

Select Changes

Probable solutions and selection of changes

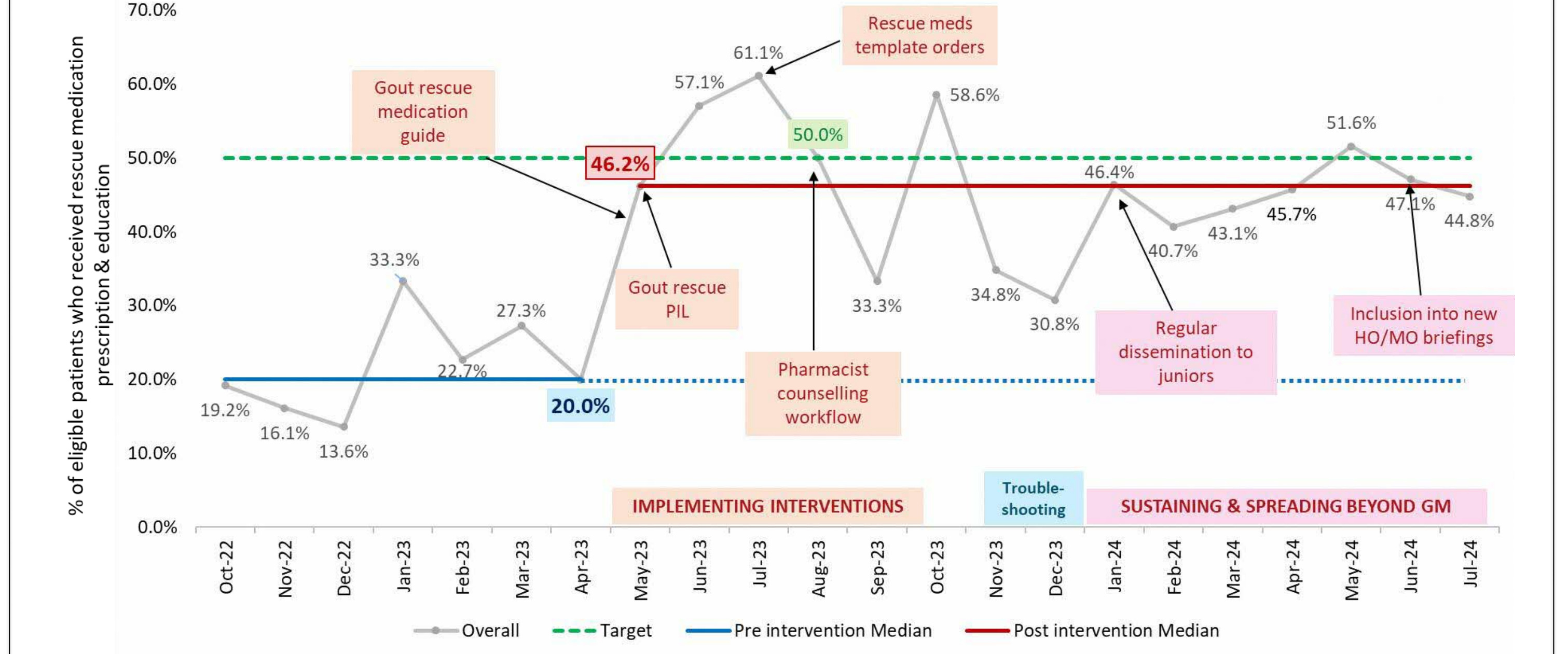
Root Cause	Potential Solutions	PS#
No easily accessible guide on gout rescue meds	1) Create and disseminate a gout rescue medication guide to be used as an EPIC smartphrase	PS1
No patient information leaflet on gout rescue self-meds	2) Create and upload a patient information leaflet that can be personalised according to patient's medication prescribed	PS2
Time consuming to educate patients during ward rounds	3) Implement use of patient information leaflet by discharge pharmacists to educate patients on gout rescue medications when collecting discharge medications.	PS3
	4) Recommend specialty rheumatology nurse education for challenging patients.	PS4
	5) Mandate junior doctors to educate patients prior to discharge	PS5
Doctors' assumption that pharmacist will explain rescue meds when dispensing	5) Mandate junior doctors to educate patients prior to discharge	PS5
	3) Implement use of patient information leaflet by discharge pharmacists to educate patients on gout rescue medications when collecting discharge medications	PS3
No preset template order for gout rescue meds	6) Teach junior doctors to create their own gout rescue medication order and what instructions to include	PS6
	7) Create a set of template orders that can be used by doctors for gout rescue meds with appropriate prefilled instructions	PS7



Test & Implement Changes

CYCLE	PLAN	DO	STUDY	ACT
1	(A) Develop a gout rescue medication guide that can be made easily and immediately available to doctors on epic. Guide to include: Recommended drug & doses for specific settings, Instructions to patients	- Draft rescue medication guide created as an epic smartphrase "goutrescue" on 25/4/23 - Draft guide circulated to rheumatology and general medicine doctors for review over the period of 25-27/4/23 - Feedback and suggestions collected	- Feedback obtained from doctors on choice of drugs, appropriateness of instructions, ease of understanding and use. - Noted slight differences in practice for drug dosing - Found to be easy and straightforward to use, drug options & patient instructions were appropriate	ADOPTED after minor changes Guide amended according to feedback, made changes in colchicine dosing, range provided for etoricoxib, added recommendations for physicians to consider Guide finalised as an epic smartphrase on 28/4/23
2	Develop a patient information leaflet (PIL) on gout rescue self-medications: Must be able to personalise according to patient's prescribed gout rescue medications, Include instructions on medication use	- Draft PIL created on 25/6/23. - rheumatology nurse and a pharmacist from 26/5/23 to 5/6/23 for review - Feedback & suggestions obtained	- Feedback obtained on areas to improve PIL: - Include an "other" option - Include common side effects of drugs - Consider versions in other languages	ADOPTED after minor changes PIL amended according to feedback provided, mandarin version created. Relevant approvals sought and obtained on 8/6/23. PIL finalised for subsequent use. PIL made available to rheumatologists and rheumatology nurse. Planned for use by discharge pharmacists
3	inpatient GM teams to directly engage specialty rheumatology nurse to counsel challenging gout patients on how to self-medicate in event of gout flare. GM teams to identify this group of patient.	Specialty rheumatology nurse was taught on key information to provide to patients for gout self-rescue medications. Email and tigertext announcement made on 14/7/23 to GM teams 1-3 doctors to consider directly referring challenging gout patients for specialty rheumatology nurse counselling from 18/7/23 to 31/7/23, subsequently extended to 7/8/23 to lengthen the study period in view of lack of utilisation. Challenging patients defined as patients with difficulty understanding simple instructions, or will require visual aids to facilitate understanding. Rates of utilisation obtained. Feedback sought from doctors & specialty nurse	- Specialty rheumatology nurse counselling service was not utilised among these teams, despite reminders to the team doctors. - Feedback: nurse counselling is rarely needed for the purposes of gout rescue instructions. If these patients were difficult to manage, they would have been referred to rheumatology. - Specialty nurse also felt that counselling is more relevant for patients to be started on definitive gout treatment rather than solely for gout rescue, referrals are more appropriate coming from rheumatology referral teams.	ABANDONED Direct rheumatology nurse counselling by GM teams ceased, not extended to rest of GM service. Rheumatologists encouraged to utilise nurse counselling if appropriate when reviewing challenging gout patients.
4	(A) Develop a set of template rescue gout medication discharge orders on epic: Inclusion of relevant drugs and their dosages according to CCI, Have prefilled instructions.	- Over the period of 18 to 21 July 2023, draft template orders created on epic, with dosages and instructions modelled against the finalised medication guide. - Draft shown to rheumatology & general medicine doctors and pharmacists to review content and also to evaluate the process of use of the template order.	- Feedback obtained from the doctors to look for any problems with the usage of the order - Some unfilled components noted - Wrong accessibility (needs to be created in outpatient medications preference for use in discharge prescription)	ADOPTED after minor changes Template order was modified to address the feedback given. Template finalised on epic on 24/7/23 for subsequent use.
5	(B) Implement use of template medication orders for gout inpatients GM doctors to use template rescue medication orders when creating standby rescue medication order for patients with gout.	Template order was made available and tested by 2 house officers and 2 medical officers from 2 medicine teams from 24/7/23 to 28/7/23. They were informed on availability of template orders and to use them to aid in their discharge medication orders.	- Feedback obtained from these junior doctors on ease of use of template orders when doing discharge medications. All gave positive feedback on the ease of use—straightforward, provides guidance in dosing, reduces time needed to type instructions and determine duration to prescribe. During test period in August, 45.5% of patients had instructions properly documented in prescription (from baseline 3.85%)	ADOPTED Template finalised on epic on 31/7/23, made available to all house officers, medical officers, residents and senior residents in medicine. Tigertext announcement made on 1/8/23 to inform on availability with instructions on using template set.
	Pharmacists to educate patient on the personalised PIL when they collect discharge medications	Instructions given to pharmacists on workflow and how to use PIL—done through physical meeting and email from 7/9/23-11/9/23 Set of PIL printed and placed in discharge pharmacies. Pharmacists were reminded of the planned workflow commenced on 13/9/23 Doctors informed on 12/9/23 via tigertext on availability of discharge pharmacist education and for them to indicate on the discharge meds order for pharmacist counselling.	- Pharmacists surveyed: workflow is smooth and can be followed. 3 patients received gout rescue medications during the study period of 13/9/23 to 30/9/23, 2 patients received counselling and provided electronic survey responses: - Improvement in gout rescue self management confidence score from 2 to 3 (likert scale 0-4) - Usefulness score of 3 (likert scale 0-4) - 3 rd patient was a functionally dependent nursing home resident -> counselling was not applicable.	ADOPTED Reminders sent to junior doctors to continue to prescribe gout rescue medications and to indicate instructions for pharmacist counselling if appropriate. Informed pharmacists of survey results, encouraged continued counselling effort.

Run chart: 20% → 46.2% sustained improvement



Spread Changes, Learning Points

- Spreading change after implementation**
- Ongoing spread to all NTFGH inpatient departments since Jan 24 through junior doctors and rheumatology consult teams.
- Spread leaders: Rheumatology consult teams (consultants, senior residents), internal medicine (IM) associate programme director (APD)
- All resources made available to consult teams
 - Education of rotating senior residents on available resources
 - Engagement with IM APD regarding available gout rescue resources for subsequent briefings to junior doctors
 - Instructions document prepared & provided for briefings & circulation to junior staff
- Key learnings**
- Easy-to-use resources (smartphrase, prefilled medication order) that improve efficiency are most effective in instituting change
 - Empowering junior doctors are key to achieve spread due to rotating nature of their postings

Scan to VOTE!

