

## **Project Title**

Pre-Filled Drug Labels for IV Drips In ED

## **Project Lead and Members**

Project lead: NC Lim Siew Lian

Project members: SNM Khoo May Lin, SSN Teng Lilian, SSN Valerie Mercadal

Capangpangan, SN Nurul Huda Md Zaid, SN Syah Andrini Binte Kamar Afandi, Eileen Ng

## **Organisation(s) Involved**

Ng Teng Fong General Hospital

## **Healthcare Family Group(s) Involved in this Project**

Nursing

## **Applicable Specialty or Discipline**

Nursing

## **Aims**

Improve the compliance rate for filling up drug labels for IV drips (complete info) in ED from 39% to 100%.

## **Background**

See poster appended/ below

## **Methods**

See poster appended/ below

## **Results**

See poster appended/ below

## Lessons Learnt

**Enhanced patient safety:** Correct drug labelling is central for ensuring proper drug dispensing and enhances patient safety.

**Efficiency:** Save time to fill up these labels so that more time can be spent on patient's care. As some drug names are more complicated, by pre-filling them, it ensures consistency in the way the drug names are filled up and avoids issues of illegible handwriting.

**Emergency Preparedness:** In the event of an emergency or a change in the patient's condition, clear IV medication labelling enables quick access to essential information.

## Conclusion

See poster appended/ below

## Project Category

Care & Process Redesign

Quality Improvement (Clinical Practice Improvement)

## Keywords

Drug, Label, IV, Drip, ED, Drug Label

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# PRE-FILLED DRUG LABELS FOR IV DRIPS IN ED

- ✓ SAFETY
- ✓ PRODUCTIVITY
- ☐ QUALITY
- ☐ COST
- ☐ PATIENT EXPERIENCE

MEMBERS: NC LIM SIEW LIAN, SNM KHOO MAY LIN, SSN TENG LILIAN, SSN VALERIE MERCADAL CAPANGPANGAN, SN NURUL HUDA MD ZAID, SN SYAH ANDRINI BINTE KAMAR AFANDI, EILEEN NG

## Define Problem, Set Aim

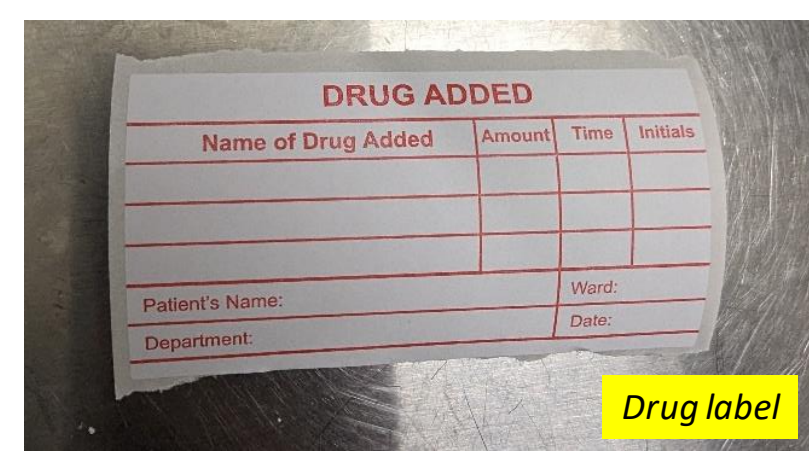
### Problem/Opportunity for Improvement

Filling up drug labels for IV drips in ED is essential for patient safety and effective medical care. Based on a randomized 1-month audit done between 26 Mar-25 Apr 2023, only 39% of the IV drips had clearly written drug labels (complete info). This is below the hospital's target of 100%.

### Aim

Improve the compliance rate for filling up drug labels for IV drips (complete info) in ED from 39% to 100%.

## Importance of Proper Labelling

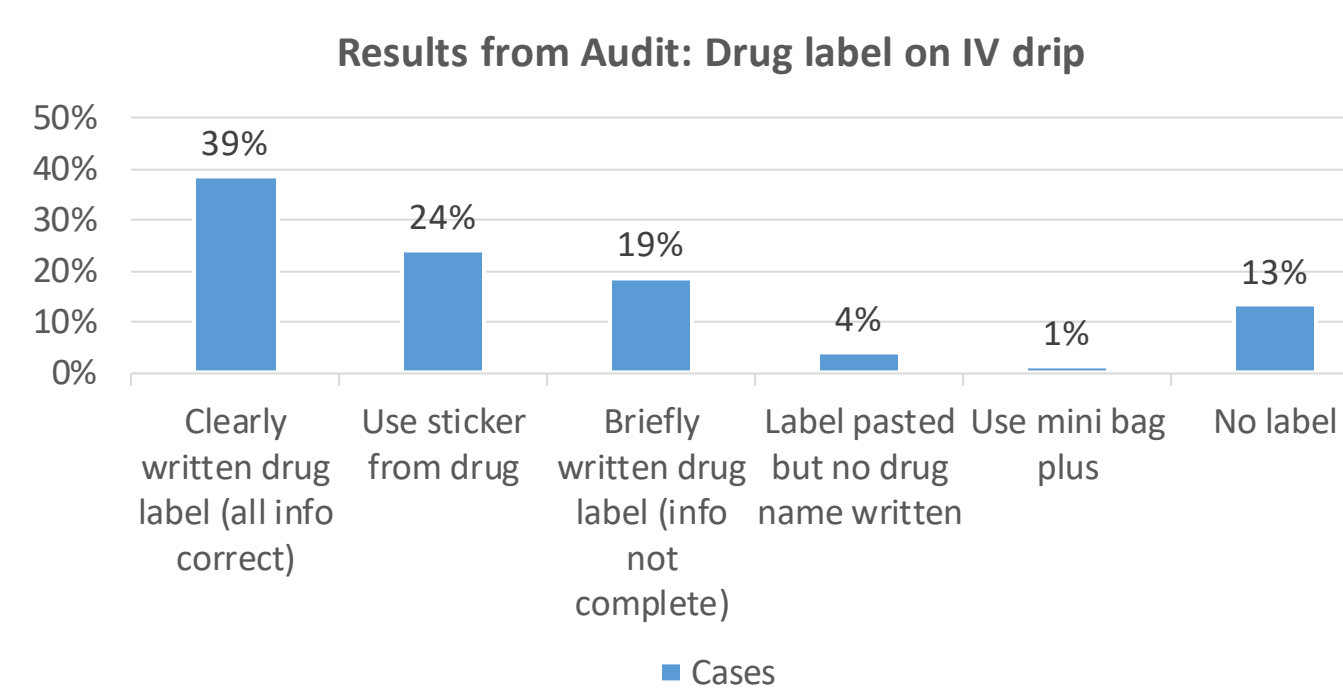


To ensure the label has the **complete** info, the following fields must be written:

- Name of Drug
- Amount of Drug
- Time Start
- Nurse initials
- Patient Name
- Department/Ward

## Pre-Intervention

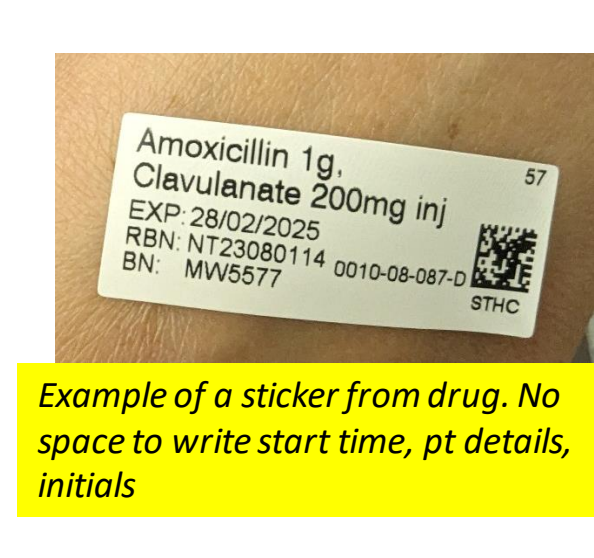
Based on a randomized 1 month audit by the project team, out of the 75 cases audited, 39% had clearly written drug label with all info filled in.



23% used the sticker from drug but it does not equate to completeness as it only has the drug name and does not have the pt's name, time start and nurse initial.

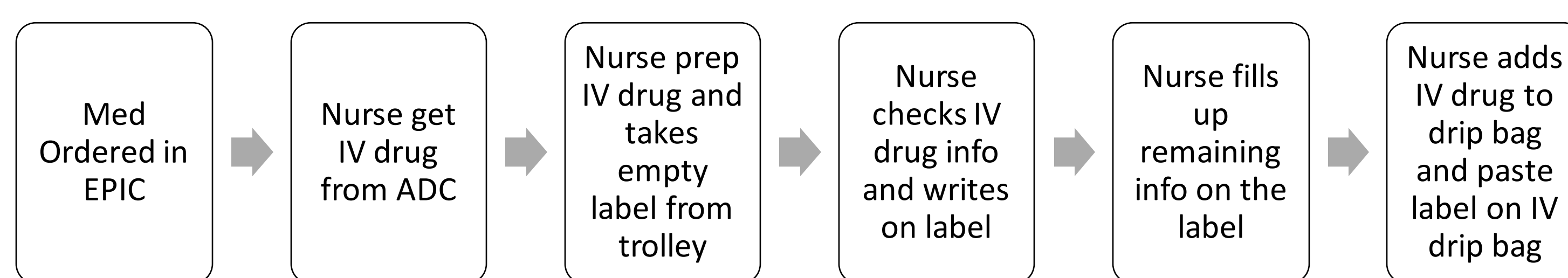
13% did not have any form of labelling on the IV drip.

Significant room for improvement is observed.



## Analyse Problem

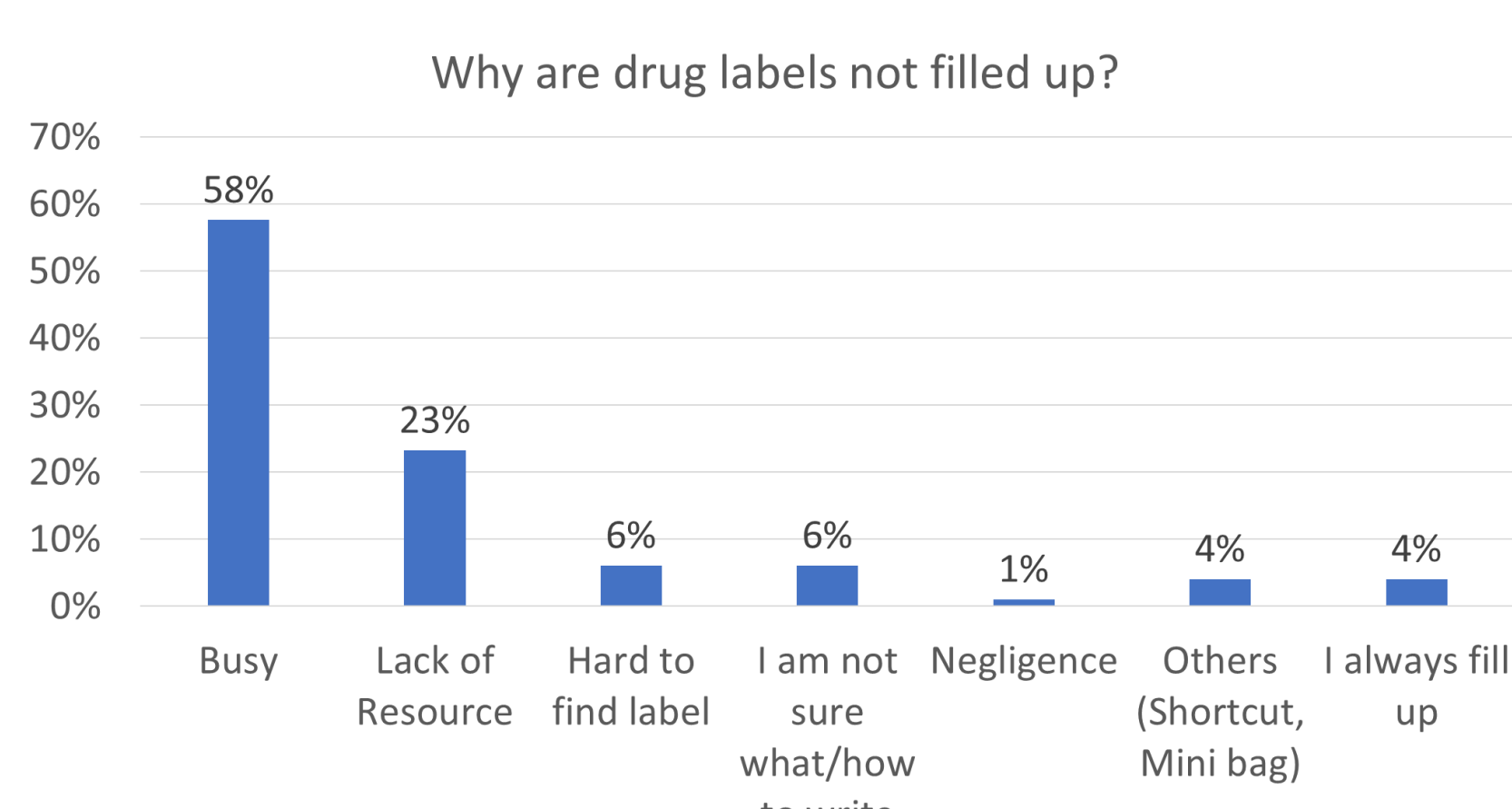
### Process before interventions



### Causes for low compliance

To understand ground nurses' perspectives, an anonymized survey was conducted with all ED nurses to find out the constraints on why drug labels are not filled up.

Out of 74 responses, 97% shared that it is important to fill up the drug labels on IV drips. However, **only 49%** surveyed shared that they label IV drips "All the time".

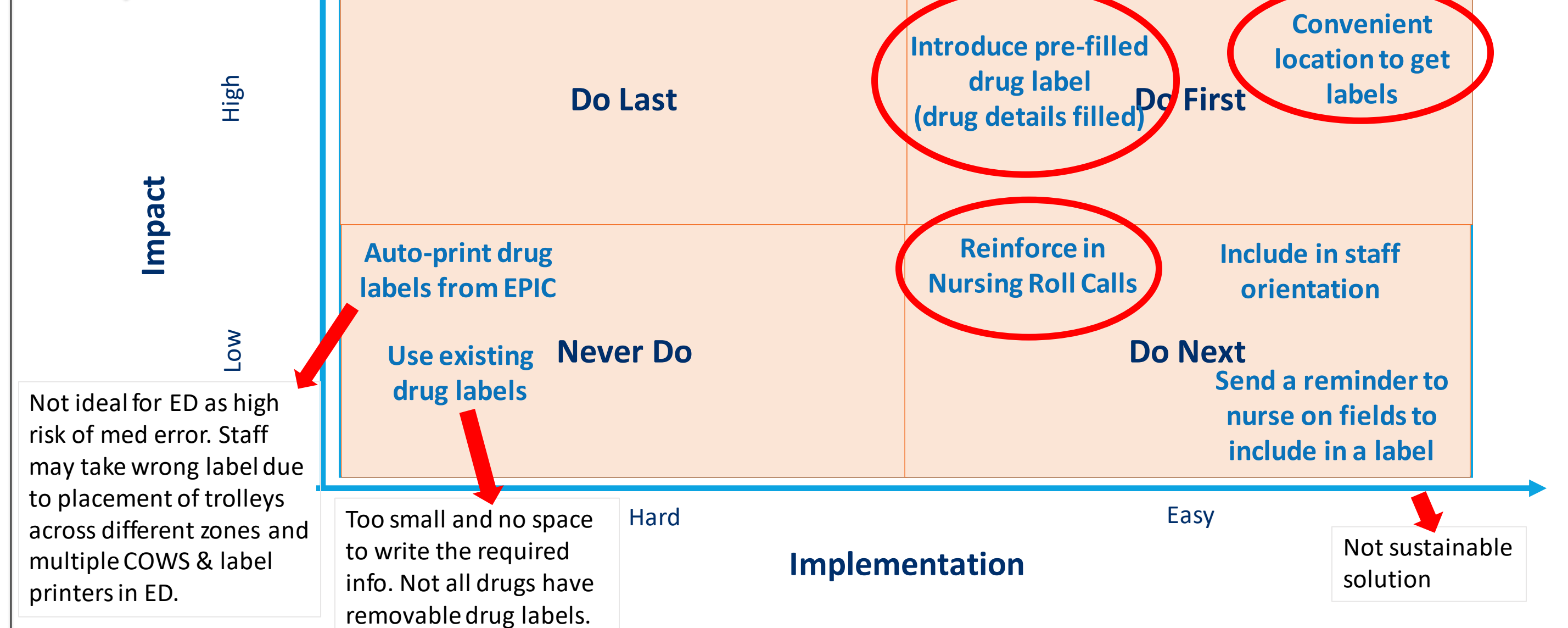


The key reasons for not filling up the drug labels are **Busy/Lack of Time** and **Lack of resource (label, pen, scissors)**.

A few responses also shared that they find it hard to find labels at times and are not sure what to write.

## Select Changes

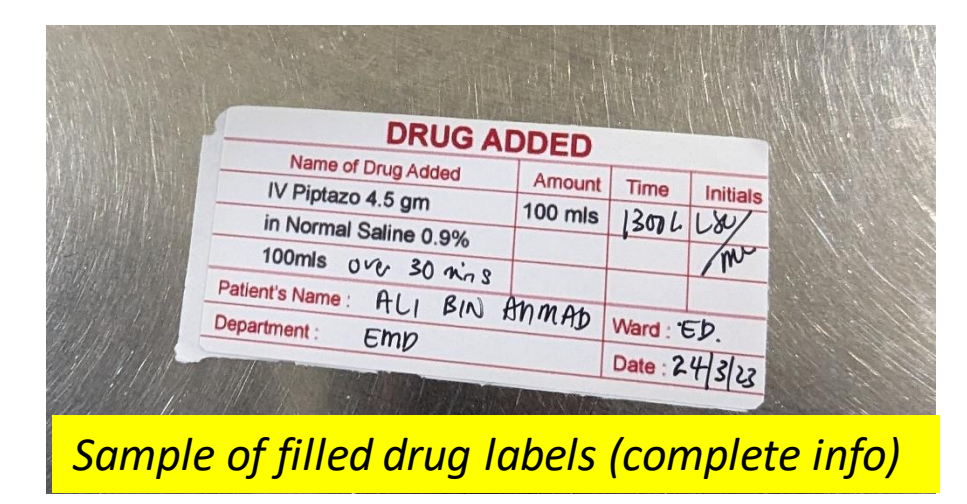
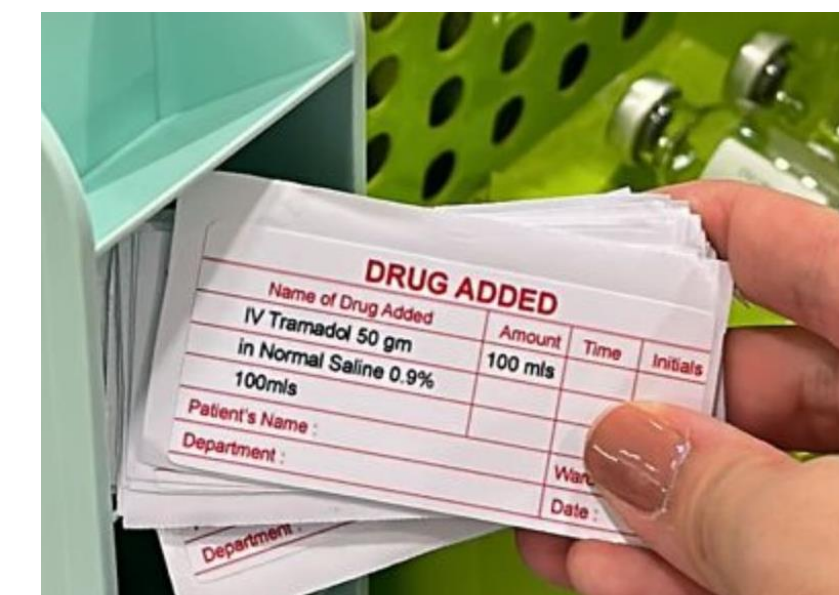
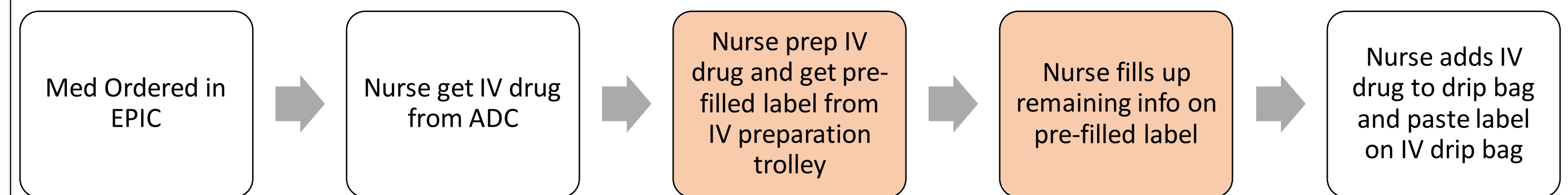
Different interventions were brainstormed by the team, taking into consideration the suggestions from the ground. The different probable solutions were evaluated. The team decided on the solutions in red which can address the top 4 key constraints from the survey.



## Test & Implement Changes

The team decides to trial the idea of a pre-filled drug label (drug details filled), starting with more commonly administered IV drugs. 96% of nurses who took part in a pre-implementation survey find that the pre-filled label will be helpful. The team was encouraged by the support for the idea.

The top 3 IV drug administered is Augmentin, Tramadol and Piptazo. The team prints the pre-filled drug label for these 3 drugs and plans for a 3-months pilot (May-July 2023).



PLAN	DO	STUDY	ACT
Trial the use of pre-filled drug label for Augmentin, Tramadol and Piptazol IV drip (Top 3 commonly used IV drugs) from May-July 2023.	Yes, trial carried out smoothly as planned.	Based on observation by the project team, 80% of the IV drips had clearly written drug labels (complete info)	The results demonstrate strong success and the team is keen to adopt this permanently for all commonly used drugs (est. 6 types).
Place the labels at a convenient location, IV Prep Trolley.	Most of the IV drips which were labelled had pre-filled drug labels. For the IV drips which do not have pre-filled drug labels, the labelling remains inconsistent.	Positive reviews from ground staff on the pre-filled drug labels as it eases the administrative burden and they feedback that all commonly used drugs should have these pre-filled labels.	Suggestion for consideration: - Colour-coded labels for different drugs for better visualisation
Reinforce during staff roll calls.			

Following the pilot, the team noticed that the compliance rate has returned to pre-intervention level.

In view of the success of the pilot, the project team is seeking approval to roll out the pre-filled drug label for all commonly used drugs permanently.

If approved, the team aims to roll out progressively by end of the year.

- A round of audits will be conducted to check on compliance and ensure no confusion over the different drug labels.
- The pre-filled label will also be shared in new staff orientation and roll-calls to reiterate the importance of filling drug labels with complete info.

## Spread Changes, Learning Points

### Strategies to spread change internally and to other areas

#### Awareness:

- Conduct meetings/presentation to stakeholders about the project's benefits and importance to seek support on rolling this out permanently.
- Share our success story with other wards so that cost of ordering the drug label can be minimised if order in bulk. Collectively, we can also achieve hospital target and prevent medication errors.

### Key learnings from this project

#### Enhanced patient safety:

Correct drug labelling is central for ensuring proper drug dispensing and enhances patient safety.

#### Efficiency:

- Save time to fill up these labels so that more time can be spent on patient's care.
- As some drug names are more complicated, by pre-filling them, it ensures consistency in the way the drug names are filled up and avoids issues of illegible handwriting.

#### Emergency Preparedness:

In the event of an emergency or a change in the patient's condition, clear IV medication labelling enables quick access to essential information.