



Background

- Discharge pharmacies (Pharmacy B and Pharmacy @ IB) start preparing discharge medications upon doctor's order of discharge prescriptions. Discharge prescriptions may be ordered prior to discharge confirmation (e.g., a day before actual discharge). Pharmacies process the prescriptions without knowing patient's discharge status.
- Due to the sheer number of discharge prescriptions to be processed without the information of patient's discharge status, discharge pharmacies may not be able to prioritize confirmed discharge cases. Hence, some prescriptions have not been processed upon patient's check in at the discharge pharmacies.
- As part of the closing duty, pharmacy technicians will call the wards to check on discharge status for all the uncollected bags. This is to identify the discharge cases after operating hours as these bags will be transferred to be dispensed at A&E pharmacy after discharge pharmacy closing. This is a time-consuming process which the time and manpower could be better utilized.

Objectives

The aim of the project is to reduce the number of unprocessed discharge prescriptions when the patients arrive at discharge pharmacies by 20% within 6 months. The secondary aim of the project is to reduce total time taken by pharmacy staff on calling the wards to check on discharge status.

Problem Analysis

During the project kick-off meeting, discharge pharmacy workflow was reviewed. The team conducted workflow mapping of existing processes.

A Gemba walk at inpatient wards was conducted to observe and to better understand discharge work process at the wards. Inpatient patient/bed status is being monitored (occupied, to be discharged, available, etc.) via Patient Information Management System (PIMS) and once the attending doctor confirms patient discharge, the nurses will inform the patient service associate (PSA) to update PIMS accordingly. This information can potentially be useful for the discharge pharmacies to prioritize picking and reviewing of discharge prescriptions for these upcoming discharge cases.

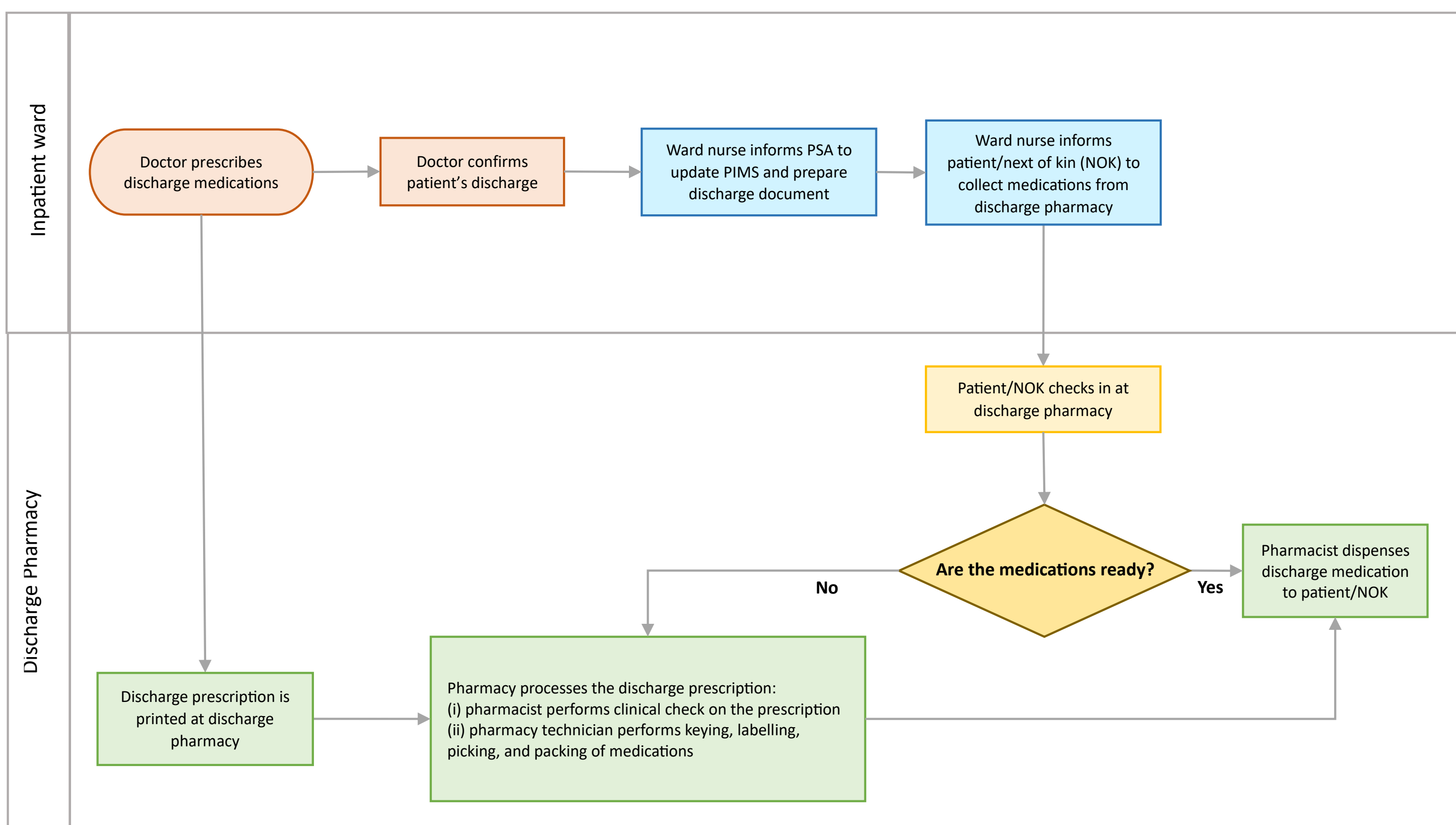


Figure 1. Process mapping diagram of existing workflow

With this finding, the team decided to steer improvement efforts to incorporate PIMS as part of the existing workflow.

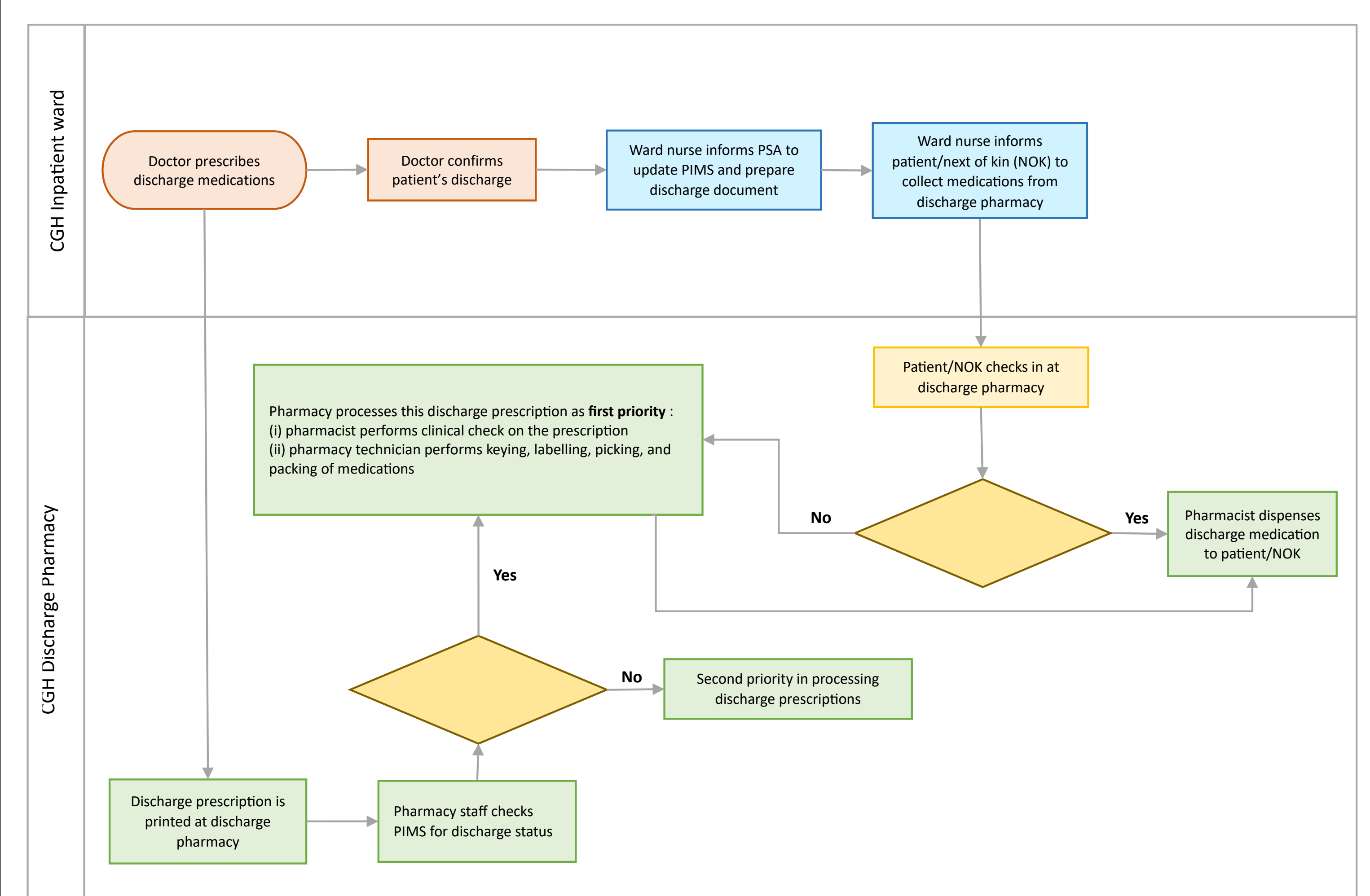


Figure 2. Process mapping diagram of revised workflow.

Results

A) Number of unprocessed discharge prescriptions upon patient's check in at discharge pharmacies

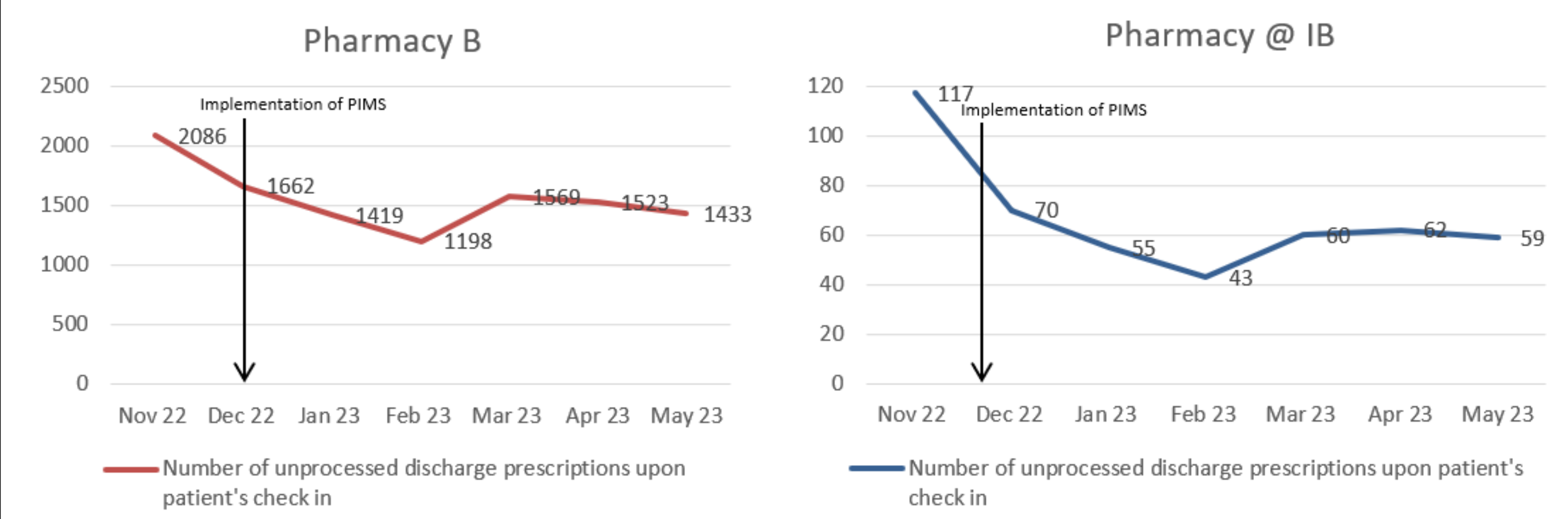


Figure 3. Number of unprocessed discharge prescriptions upon patient's check in at Pharmacy B and Pharmacy @IB.

Gradual reduction of unprocessed discharge prescriptions was observed at both pharmacies since implementation in December 2022. Pharmacy B observed an average of 22.9% reduction of unprocessed discharge prescriptions while Pharmacy @IB observed an average of 6.3% reduction.

A smaller % reduction was observed at pharmacy @IB due to a smaller and more manageable load of discharge prescriptions and a lower % of unprocessed discharge prescriptions even before the start of the project.

B) Total time taken on calling the wards to check on patient's discharge status

Post implementation, the average time taken to call the wards reduced from 50 minutes to 15 minutes at Pharmacy B, and from around 30 minutes to 5 minutes at Pharmacy@ IB.

Conclusion

The team achieved its objective of reducing the number of unprocessed discharge prescriptions when the patients check in at discharge pharmacies. This may help to improve patient's waiting time and satisfaction. This project has improved the efficiency in workflow and reduced redundancy at the discharge pharmacies.