



Singapore Healthcare Management 2018

Re-organising the storage of medications in the Operating Theatre

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Introduction

Daily, local anaesthetic drugs and other types of medications are prepared pre-operatively and used intra-operatively for elective and emergency surgeries. The amount and types of drugs used in each Operating Room surgical discipline varies, based on surgery requirements.

Background

These medications are stored in non-standardized boxes and locked in cupboards located in the Induction Room of every Operating Theatre (OT), which is a distance away from area of preparation. Also, these boxes are not properly compartmentalized, not clearly labelled and the standard norm for each medication is not stated. Potentially, this may cause medication errors and wastage.



Drug box used in OT before start of project

Interventions / Initiatives

Implementation (5S):

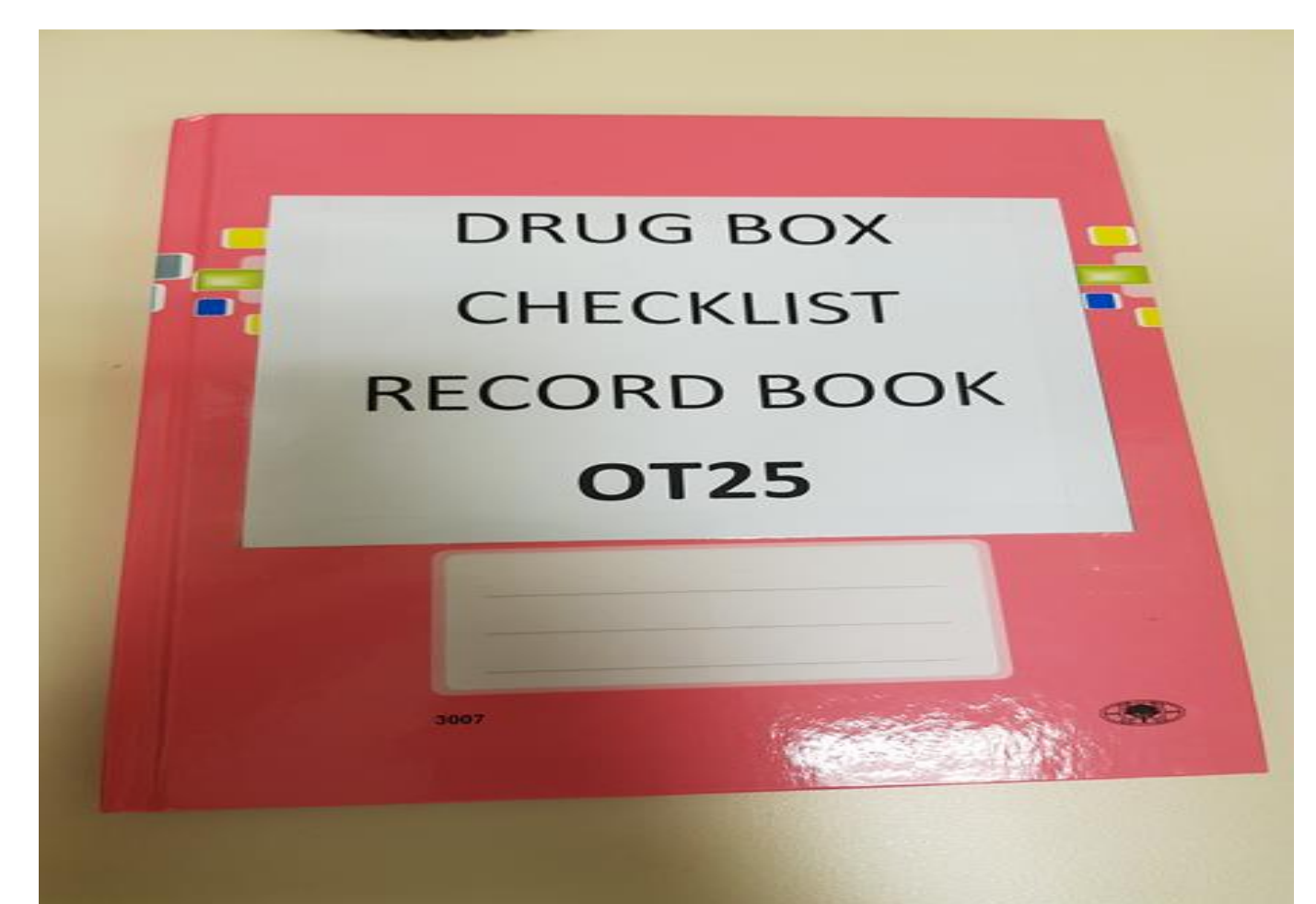
We aim to:

- Collate all drugs used intraoperatively
- Source and procure storage drug boxes which meet our specifications and requirements
- Label the drug boxes and indicate the norms for every drug
- Designate a storage cabinet with lock in the preparation room.
- Conduct briefing to all nurses on the use of the new drug box
- Create recording book for checking and replenishment of drugs

Sort	Set-in-order	Shine	Standardize	Sustain
Sort and select drug box and norms for weekly usage basis	Arrange drugs according to properly labelled storage space.	Clean drug box according to department protocol.	Create a checklist and standardize labelling of drugs according to OT surgical discipline's use.	Conduct inventory checklist audit by NC in charge of individual OT and quarterly audit by the pharmacist

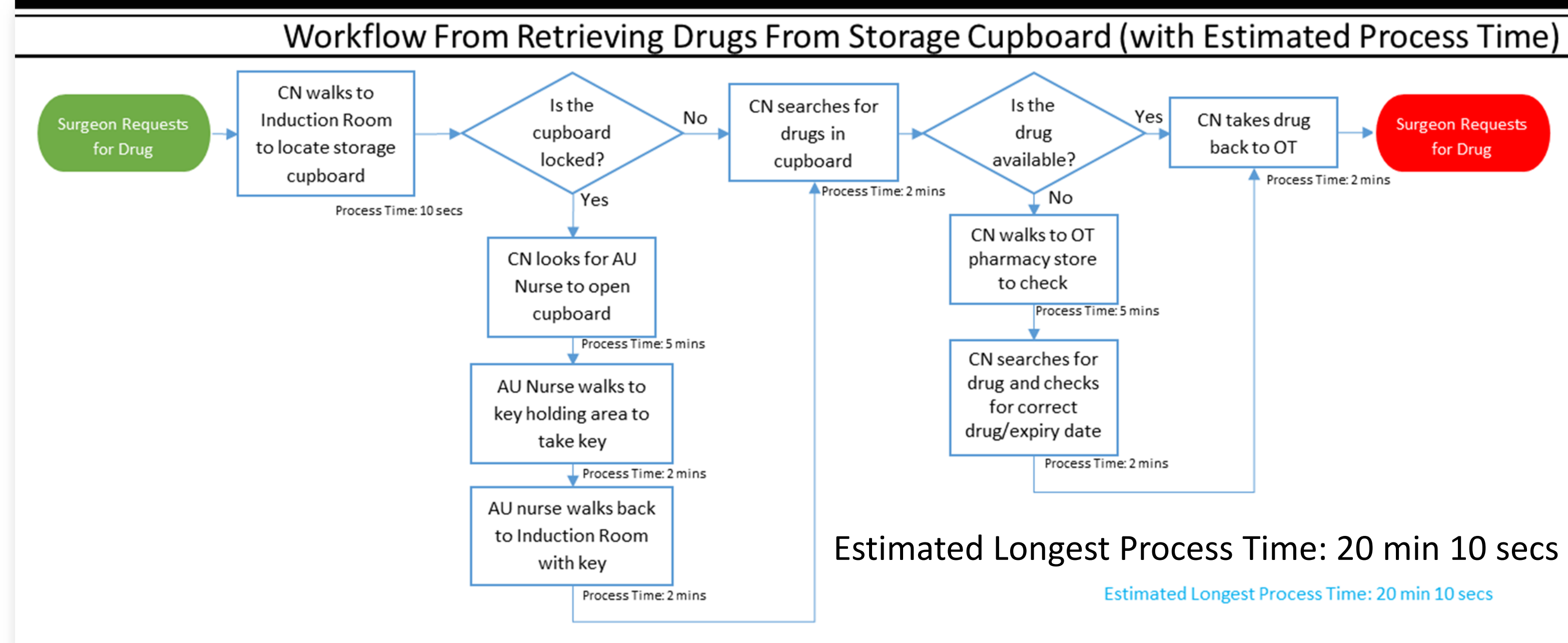


New drug box



New Recording Book (for each OR)

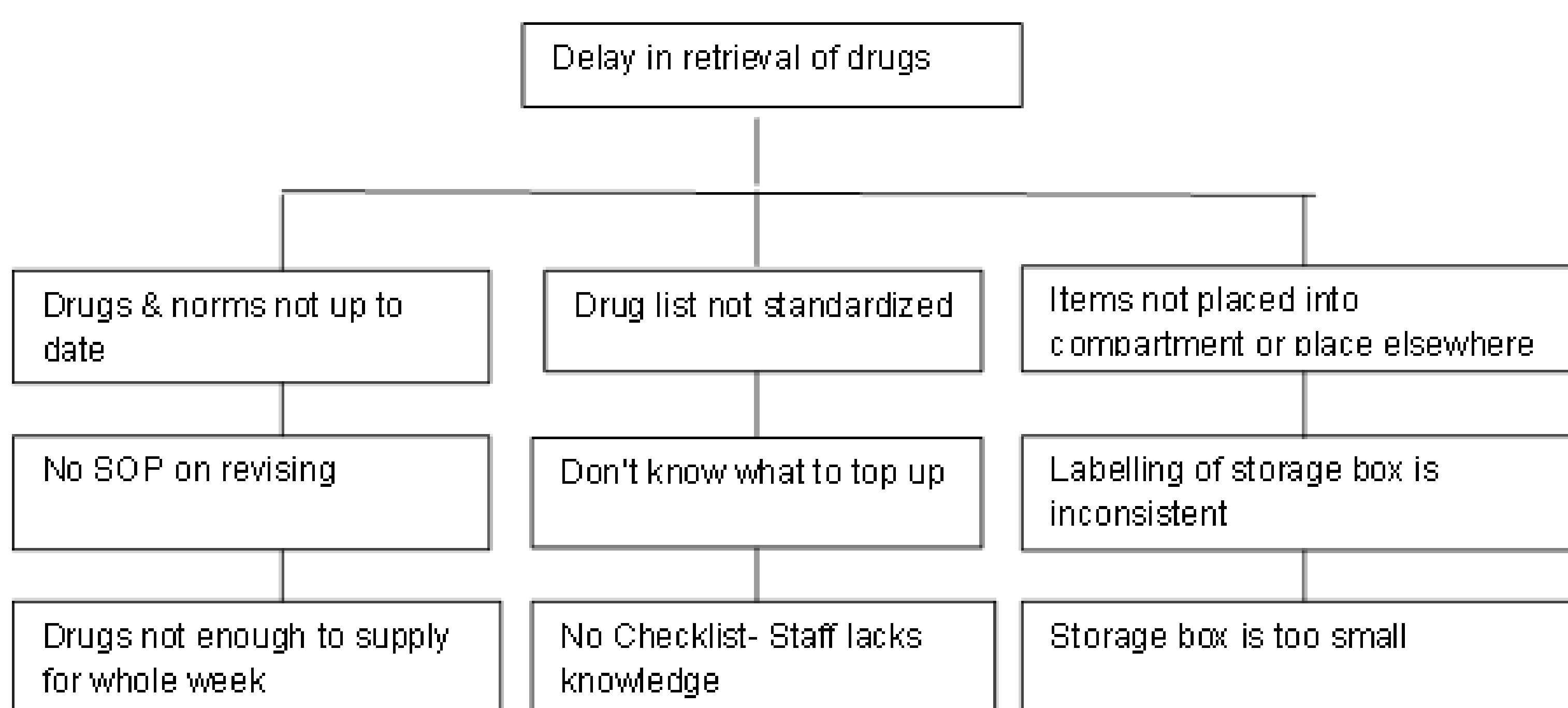
Workflow From Retrieving Drugs From Storage Cupboard (with Estimated Process Time)



Mission Statement

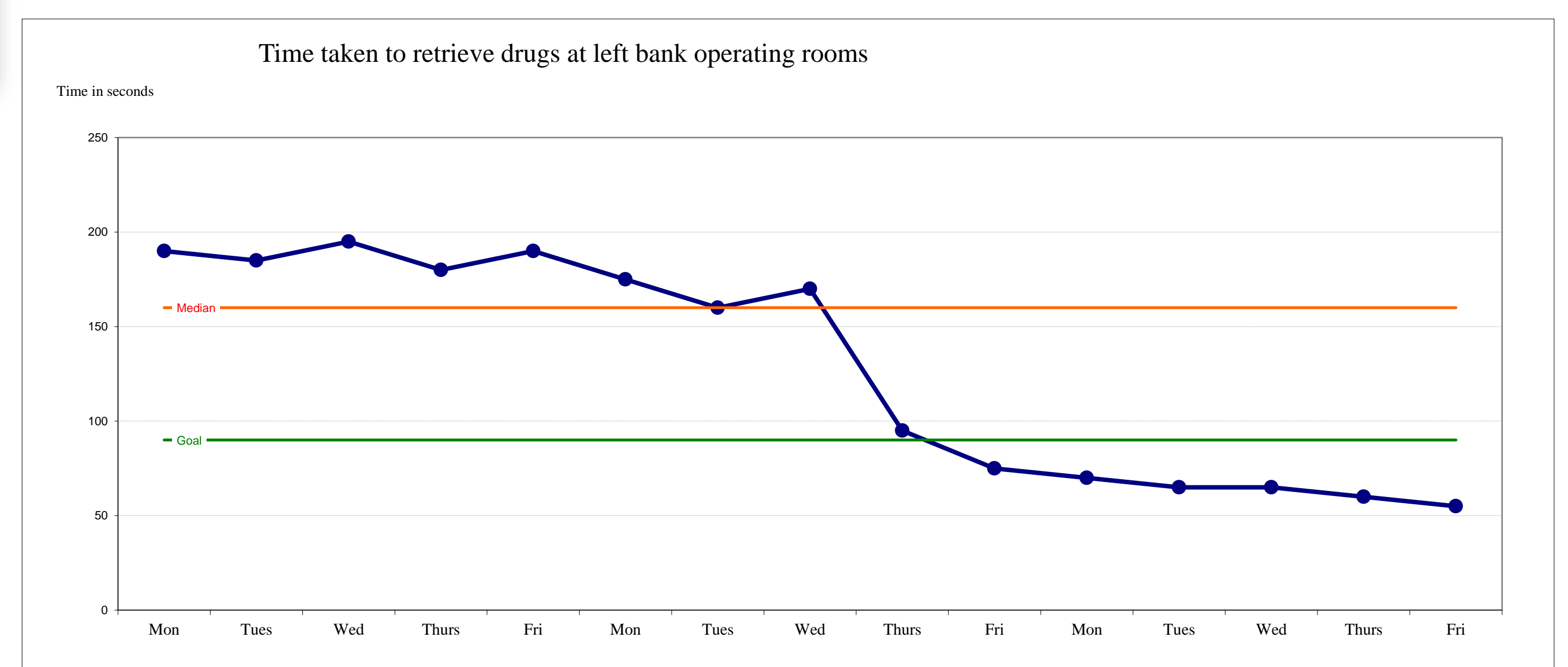
To reduce time taken to retrieve drugs for intraoperative use by less than 50% at left bank operating rooms within the next 3 months.

Analysis



The most effective means to reduce or to eliminate the delay in retrieving drug is to develop a process for managing proper storage and labelling. If we can reduce delay in retrieving drug and prevent occurrence of medication errors, we can then ensure that patient safety is not compromised.

Results



The average time taken to retrieve drug from pharmacy to the left bank operating rooms is reduced to only 1 min and 30 secs. We have met our objectives by significantly reduced the time taken to more than 50%.

Sustainability

We continue to garner support from the Senior Staff Nurses from all surgical disciplines to conduct audit by checking and ensuring correct drugs are placed in the correct compartments, drugs are topped up according to norm and the drugs are within the expiry dates. Team members continue to follow-up and collect feedback. They conduct random audits to ensure compliance by all the nurses.

Conclusion

Introduction of the new drug box with proper drug labelling and standardization of drug norms helped the OT nurses to prepare drugs required for surgery quickly and efficiently. The use of a record book ensures staff accountability and helps to reduce the risks of medication errors and ultimately, enhances patient safety.