Project Title

Improved Medication Reconciliation Workflow for Joint Admission Wards in Sengkang Hospital

Project Lead and Members

Lim Hui Jun, Nguyen Thi Hai Van

Organisation(s) Involved

Sengkang General Hospital

Healthcare Family Group(s) Involved in this Project

Pharmacy

Applicable Specialty or Discipline

Joint Admission Wards (JAW)

Aims

- To reduce reworks via consistent documentation
- To engage Pharmacy Technicians (PT) in interpreting MR documents

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

See poster appended/ below

Project Category

Care & Process Redesign, Quality Improvement, Workflow Redesign

Care Continuum, Inpatient Care

Keywords

Medication Reconciliation in Joint Admission Wards

Name and Email of Project Contact Person(s)

Name: Lim Hui Jun

Email: singaporehealthcaremanagement@singhealth.com.sg

IMPROVED MEDICATION RECONCILIATION WORKFLOW FOR JOINT ADMISSION WARDS IN SENGKANG HOSPITAL

Lim Hui Jun, Nguyen Thi Hai Van

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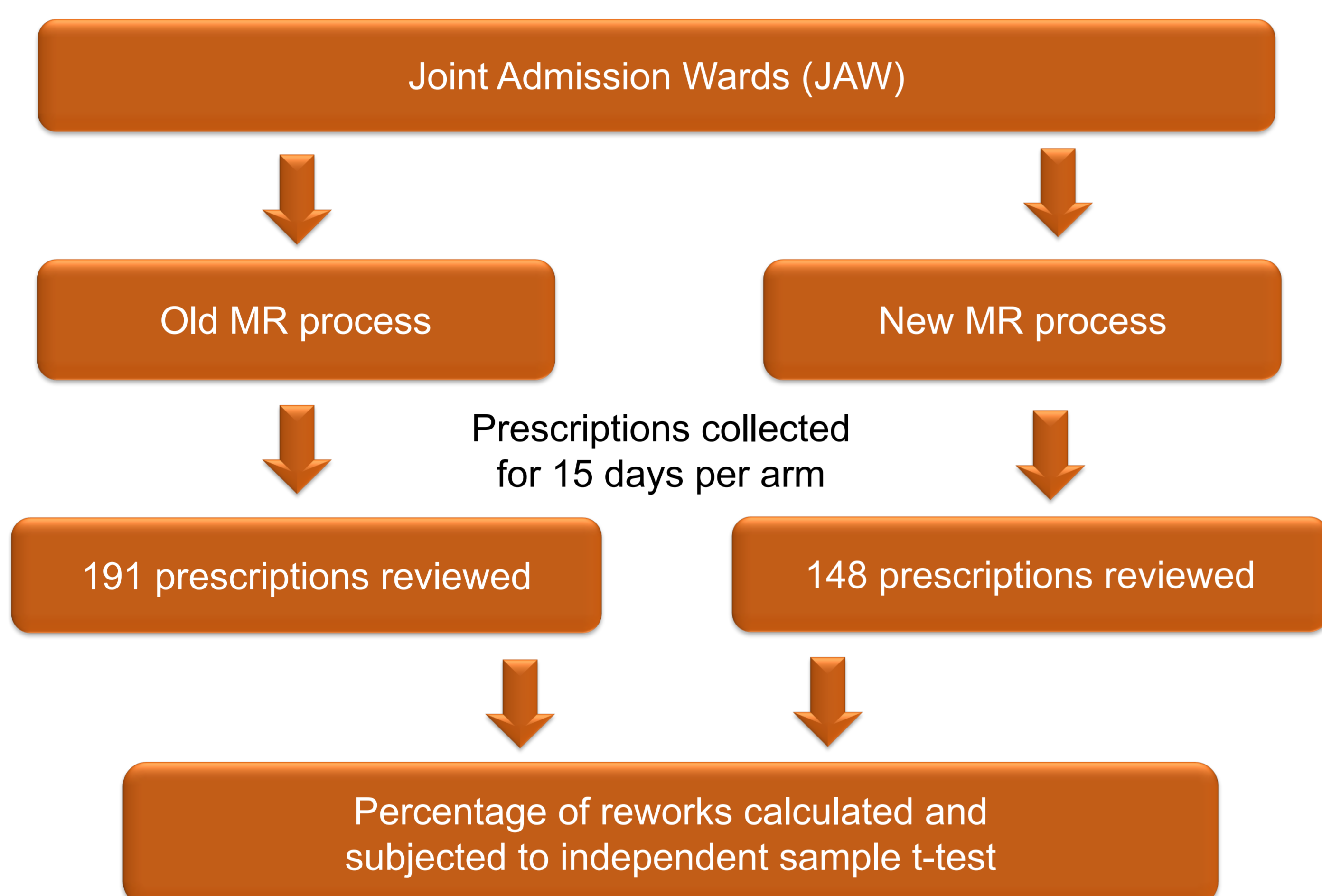Sengkang General Hospital
SingHealth

INTRODUCTION

Joint Admission Wards (JAW) is an initiative in Sengkang Health. They receive most of the new admissions, mainly for acute conditions. Patients are discharged or transferred to general wards within 48 hours once care plans are finalised. These patients seldom have medication changes or require chronic medication supply on discharge.

As our current medication reconciliation (MR) workflow does not enforce compulsory documentation of required discharge medication supply, rejected supply and reworks (any item or quantity amendments) during dispensing may occur.
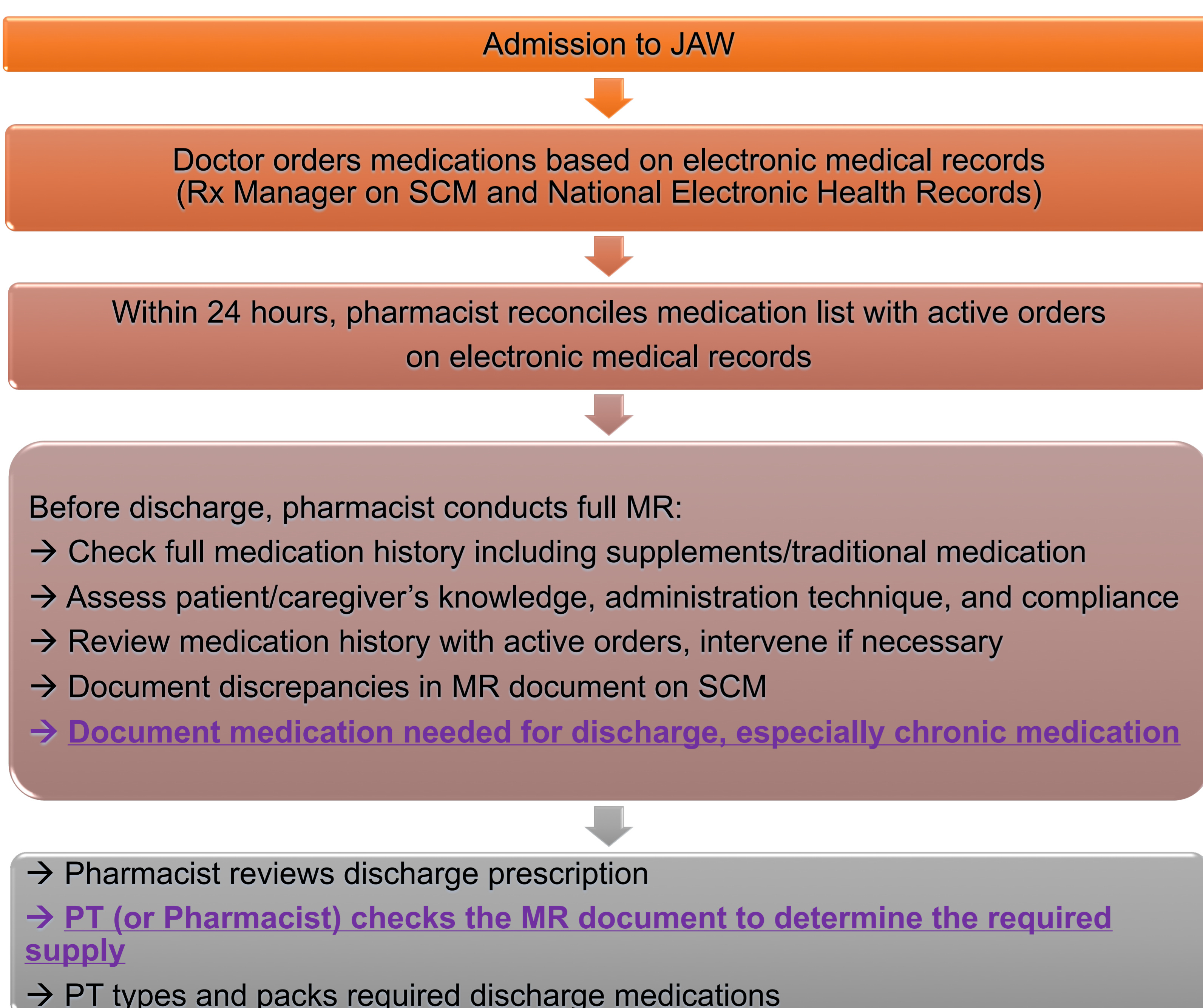
OBJECTIVES

1) To reduce reworks via consistent documentation
2) To engage Pharmacy Technicians (PT) in interpreting MR documents

METHODOLOGY

Joint Admission Wards (JAW)

Old MR process → New MR process

Prescriptions collected for 15 days per arm

191 prescriptions reviewed → 148 prescriptions reviewed

Percentage of reworks calculated and subjected to independent sample t-test

IMPROVED WORKFLOW

Admission to JAW

Doctor orders medications based on electronic medical records (Rx Manager on SCM and National Electronic Health Records)

Within 24 hours, pharmacist reconciles medication list with active orders on electronic medical records

Before discharge, pharmacist conducts full MR:
→ Check full medication history including supplements/traditional medication
→ Assess patient/caregiver's knowledge, administration technique, and compliance
→ Review medication history with active orders, intervene if necessary
→ Document discrepancies in MR document on SCM
→ **Document medication needed for discharge, especially chronic medication**

→ Pharmacist reviews discharge prescription
→ **PT (or Pharmacist) checks the MR document to determine the required supply**
→ PT types and packs required discharge medications

Legend:
→Original workflow
→**New additional workflow**

RESULTS

PERCENTAGE OF DISCHARGE BAGS THAT NEED TO BE REWORKED

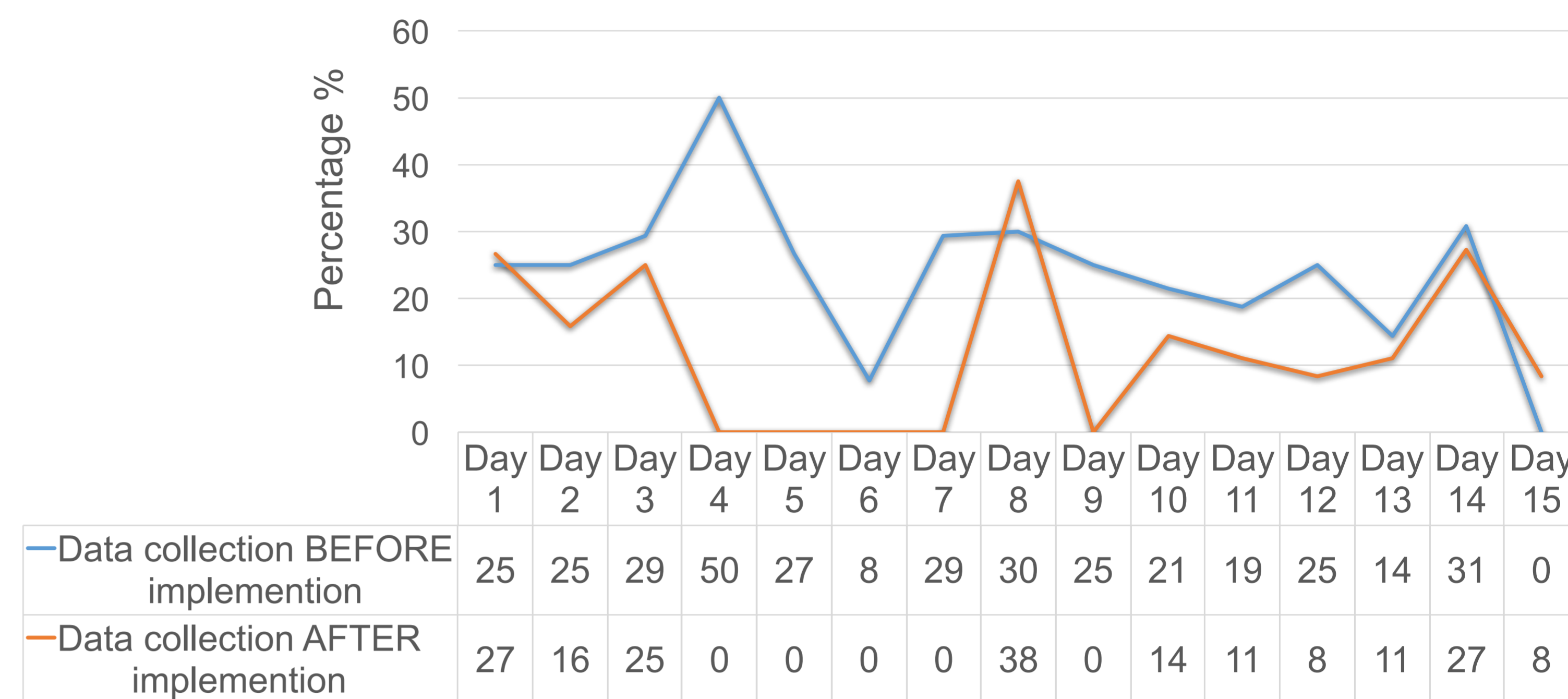|	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15
Data collection BEFORE implementation	25	25	29	50	27	8	29	30	25	21	19	25	14	31	0
Data collection AFTER implementation	27	16	25	0	0	0	0	38	0	14	11	8	11	27	8

Figure 1: Percentage of reworks done per day

Percentage of rework before and after implementation of new workflow

Variable	Observation	Mean (95% confidence interval)	Mean difference (95% confidence interval)	P value
Before	15 days	23.86 (17.60-30.12)	11.53 (2.75-20.31)	<0.0119
After	15 days	12.33 (5.60-19.06)		

DISCUSSION

Before implementing the new MR workflow, it was not compulsory for pharmacists to document patients' medication supply requirement for discharge. A high amount of reworks resulted as JAW patients were likely to reject chronic medications during discharge medication dispensing.

With the new MR workflow, reworks were reduced by 11.5% (P <0.0119).

Limitations of this project include:

1) Patients being unforthcoming or caregivers being uncontactable during MR
2) Patients requesting changes of supply during dispensing
3) Variability in MR documentation

We also suggest a standardised set of required fields in the current MR document on SCM to facilitate and enforce pharmacists' documentation, and streamline PTs' interpretation and prescription processing. Furthermore, this workflow may prepare PTs for potential PT-led MR processes in the future.

CONCLUSION

The new MR workflow shows a significant improvement in eliminating unnecessary reworks, and potentially ensures consistent documentation, and engages PTs in the interpretation of MR documents.