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No Discrepancy! No Delay!

To reduce Automated Medication Cabinet (AMC) discrepancy rate based on value in the top 6 Wards 45,47,64,73,75 and 77 by 50% within 6 months.
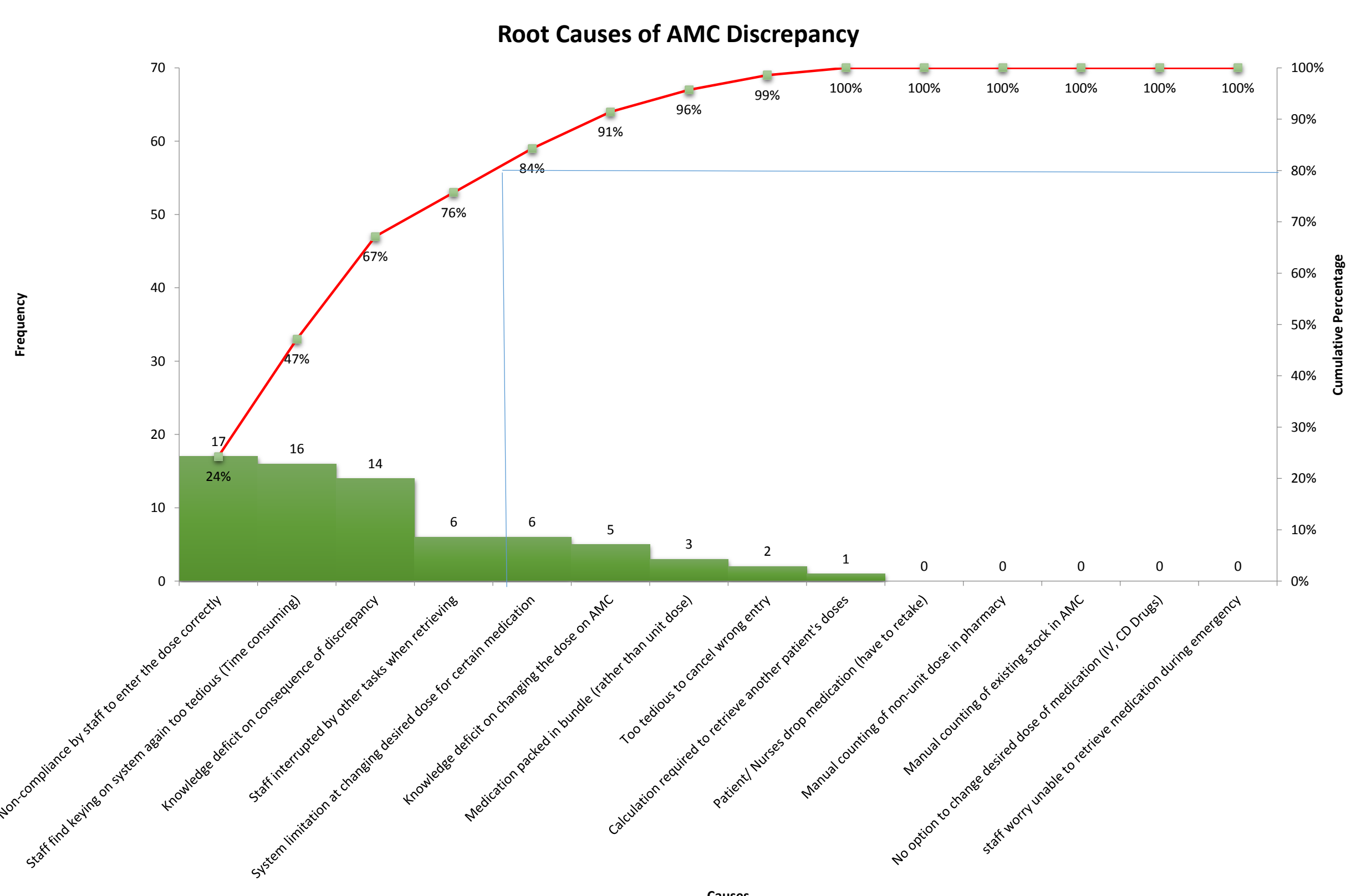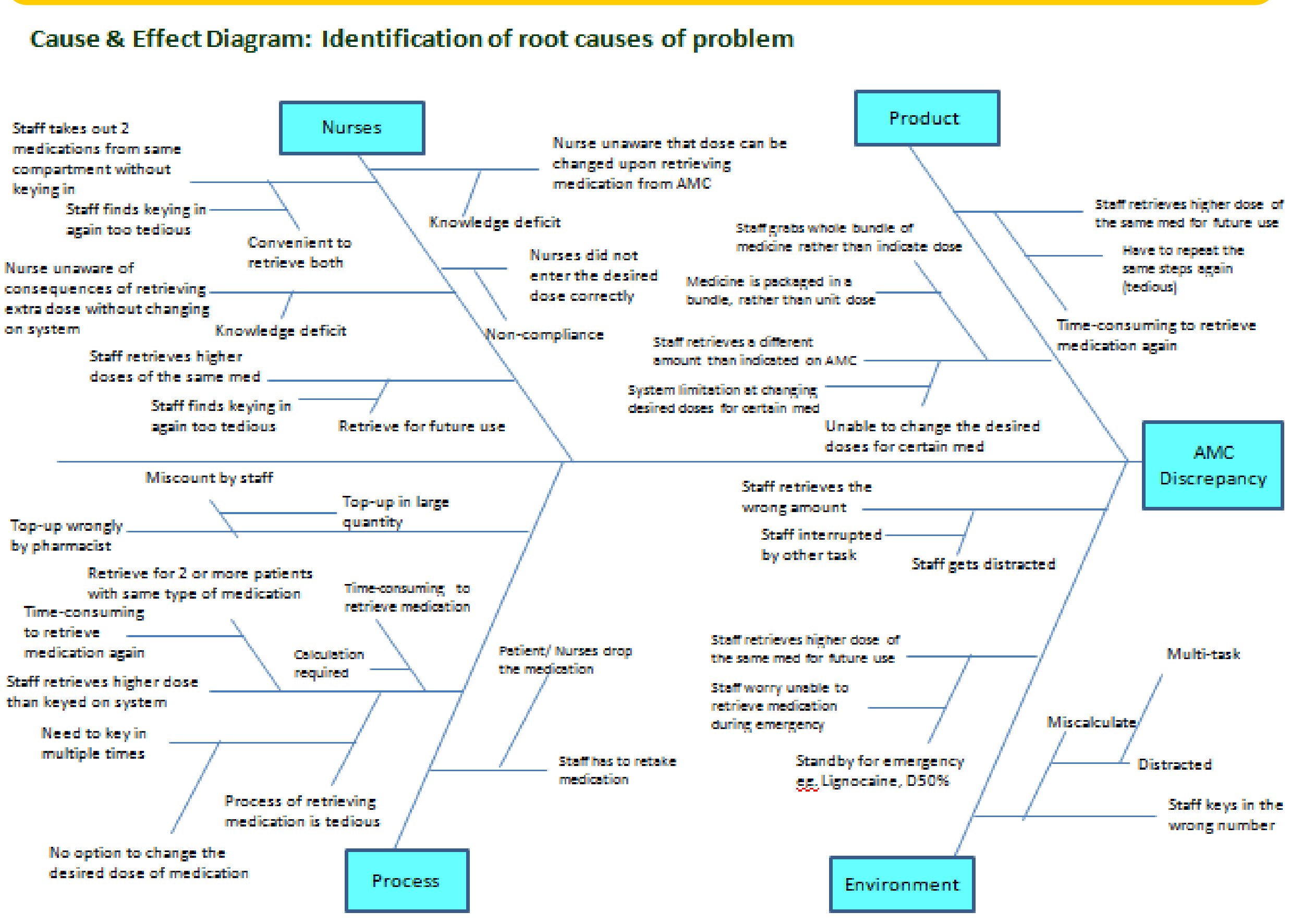
Introduction & background of AMC

Automated Medication Cabinets (AMC) were introduced to store various types of medication which are readily accessible and available for patients at ward level. It helps to reduce administration delay without waiting for supply from pharmacy. System send auto triggers to pharmacy for daily refills when supply drops to minimum level.

As most of the patients admitted will require stat dose of medications especially IV Antibiotic and pain killers. Stat dose of medication for the first 24hours is to be obtained from decentralized AMC. Therefore, high usage of AMC at inpatient wards.

Problem

Discrepancies between the actual physical quantities and the inventory quantities affect the accuracy in the auto-triggers for medication top up. In order to ensure that the patients receive the medications timely, staff would then have to spend extra time searching for medication from AMC in another station or calls pharmacy for supply. This led to delay in administration of medication and patient's frustration/ dissatisfaction.

Methodology

Cause & Effect Diagram: Identification of root causes of problem

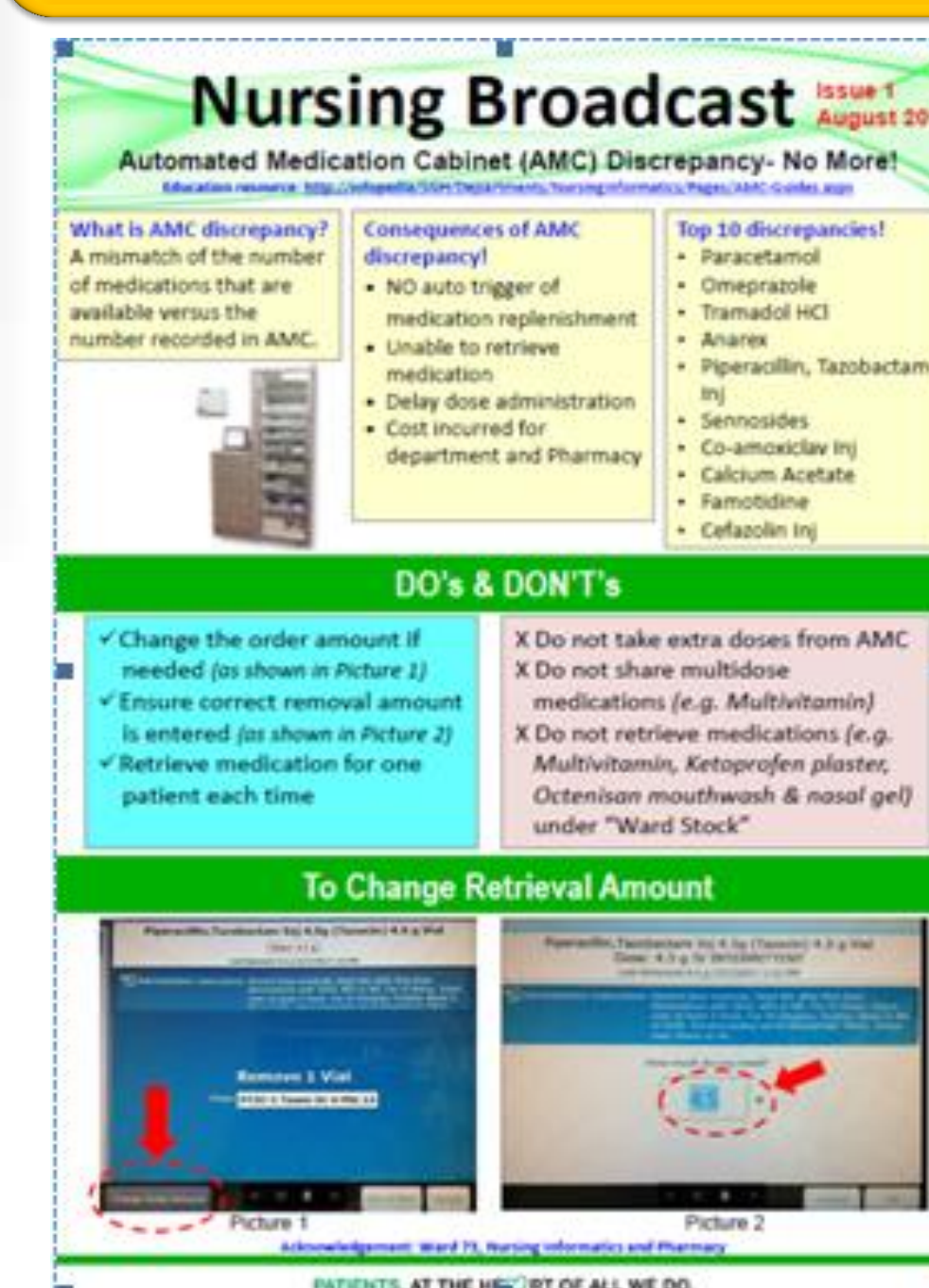
Root Causes of AMC Discrepancy

Intervention 1

• Re-educate staff via in-service and demonstration

➤ Re-educate on the role of AMC, consequences of discrepancy and the correct method of retrieve medication from AMC.
➤ Conducted in-service teaching sessions at respective wards targeting to close the gap of knowledge deficit.
➤ IT Liaison officer post the result of AMC discrepancy to nursing leaders for monthly monitoring.
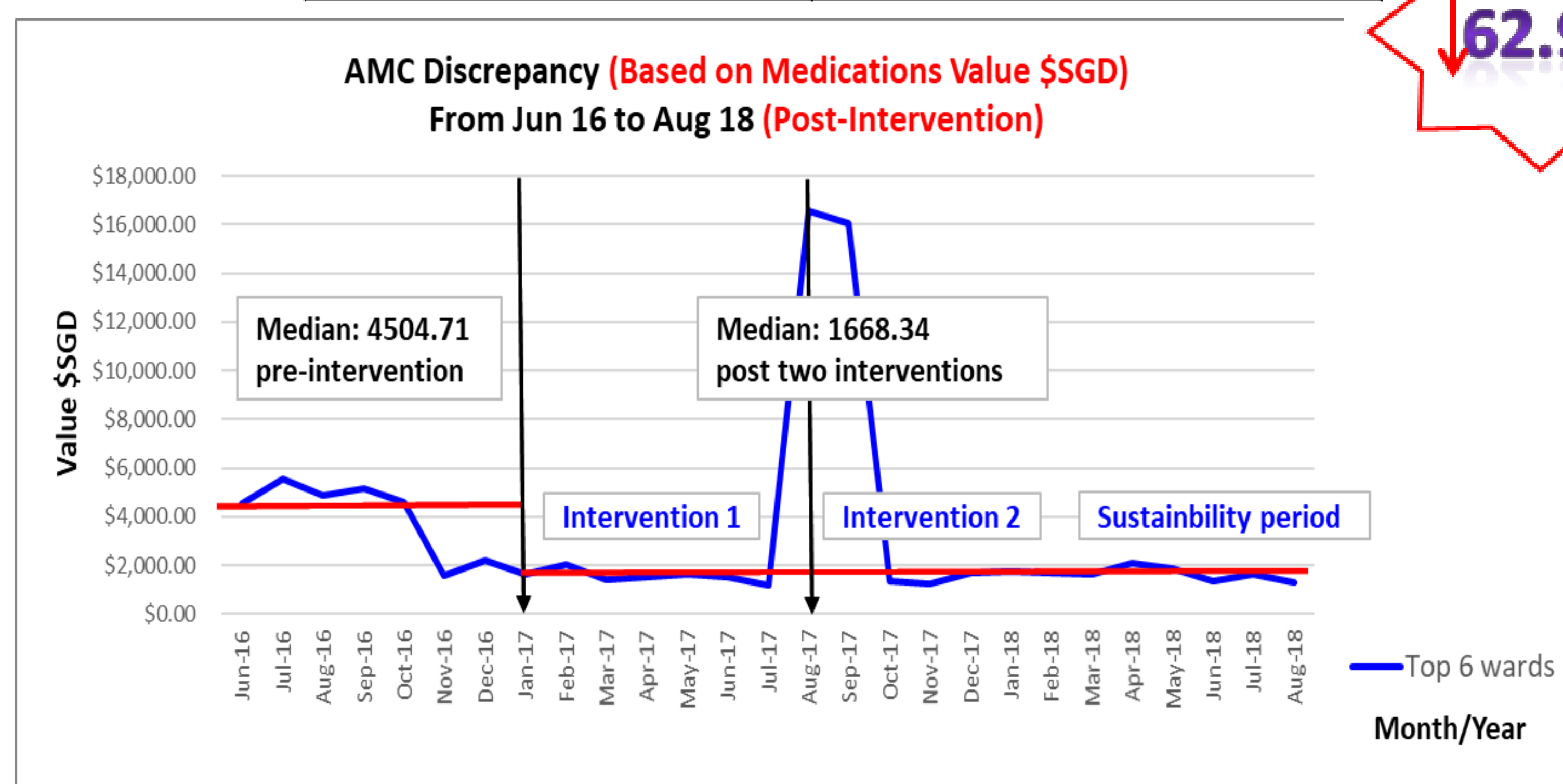
Intervention 2

• Create awareness to reach out to all levels of nurse hospital wide though "Nursing Broadcast"

➤ Simple and comprehensive information on AMC discrepancy.

➤ Targeting on all level of nurses in SGH.

➤ Available online and send to every nurses via email.

Results

Median of AMC discrepancy (Pre-Implementation)	Median of AMC discrepancy (Post-Implementation of Intervention 1 & Intervention 2)
$4504.71	$1668.34

↓62.9%

AMC Discrepancy (Based on Medications Value $SGD) From Jun 16 to Aug 18 (Post-Intervention)

Median: 4504.71 pre-intervention

Median: 1668.34 post two interventions

Intervention 1   Intervention 2   Sustainbility period

Top 6 wards

Month/Year

Conclusion

➤ With the reduced AMC discrepancy, patient receives medication promptly and reduced frustration of nurses.

➤ The reduction of the previous haphazard process of going back and forth on preparing medication, this leads to higher patient satisfaction.

➤ Reduced in discrepancy leads to cost saving.