

Enhancing Medication Safety through the Utilization of a Smart Intravenous Infusion Rate Monitoring System

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Introduction

- ◆ In hospitals, it is important to Accurately adhere to the target infusion rate for optimal therapeutic effects and avoiding adverse effects.
- ◆ Aim to reduce infusion rate errors and build a smart patient safety system by introducing a cutting-edge remote infusion monitoring(RIM) system .

※ RIM system?
Recognized the infusion rate and sends an alarm through the platform if it deviated from the set infusion rate

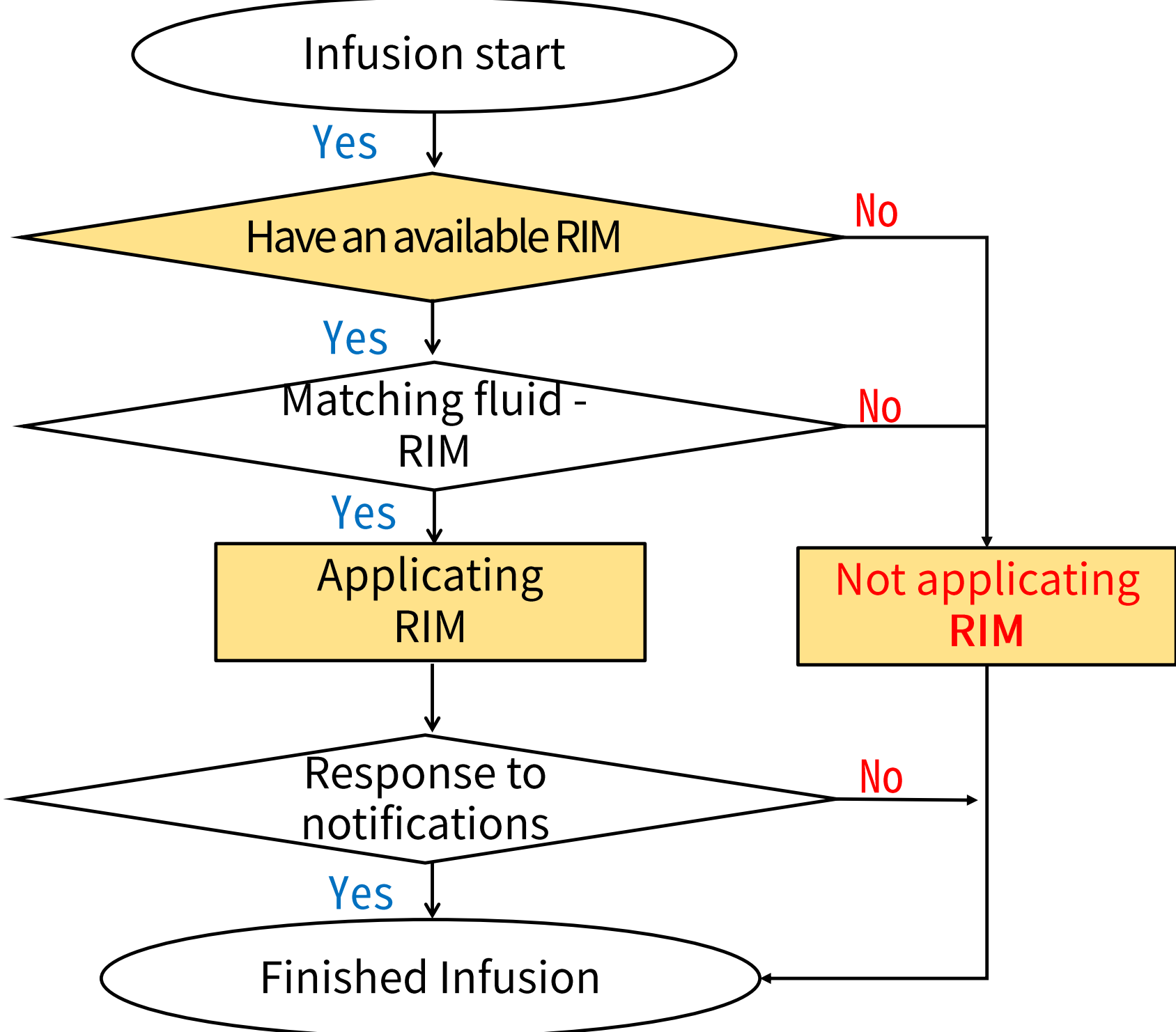


Indicators and Goals

- ◆ Indicator 1. Improved RIM recognition score by 20%
- ◆ Indicator 2. Improved RIM satisfaction score by 20%
- ◆ Indicator 3. Improved RIM device utilization rate by 10%p
- ◆ Indicator 4. Reduced the reported rate of dosing errors to 0.41‰

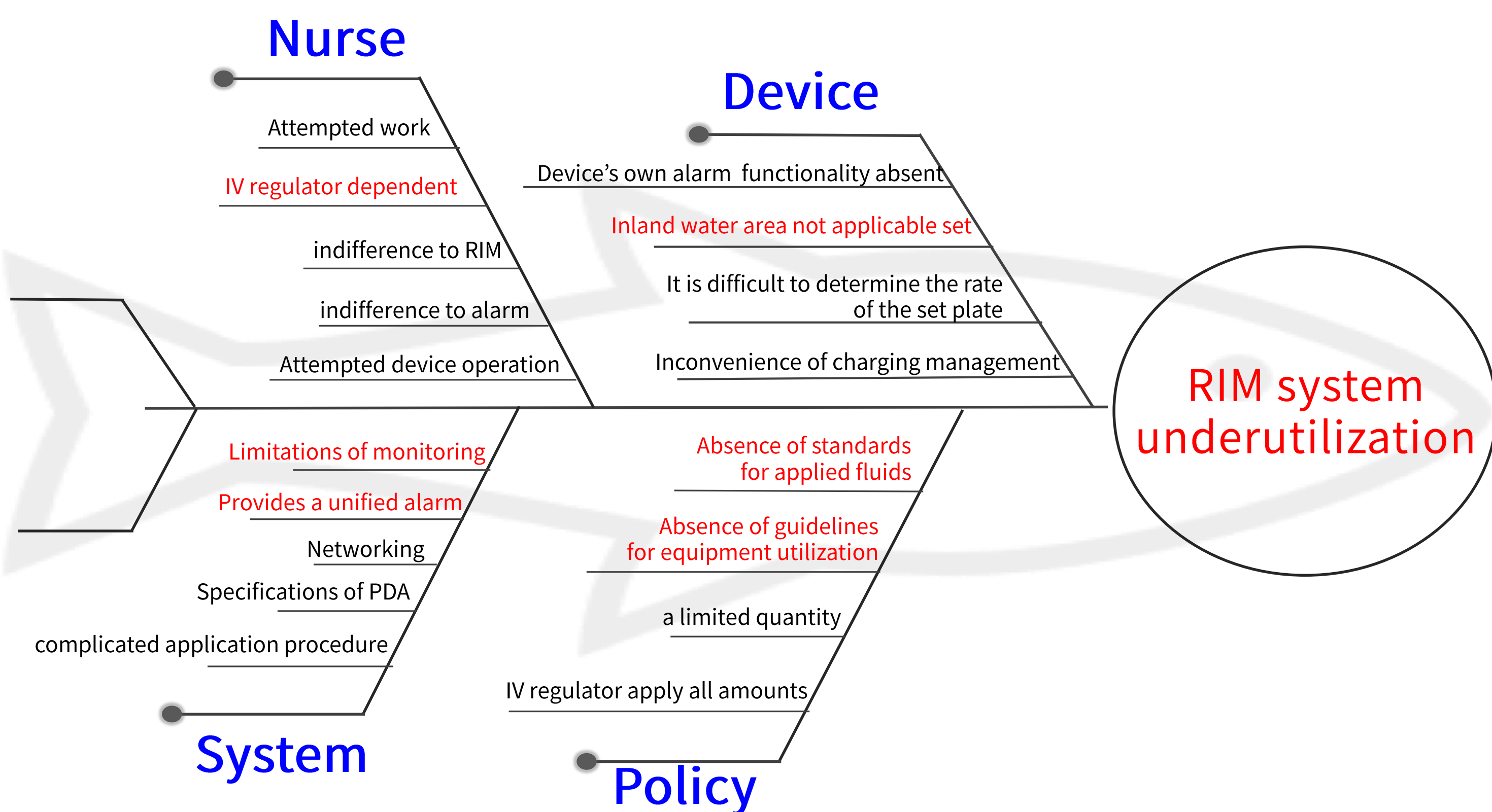
Problem Analysis

◆ Work Process Analysis



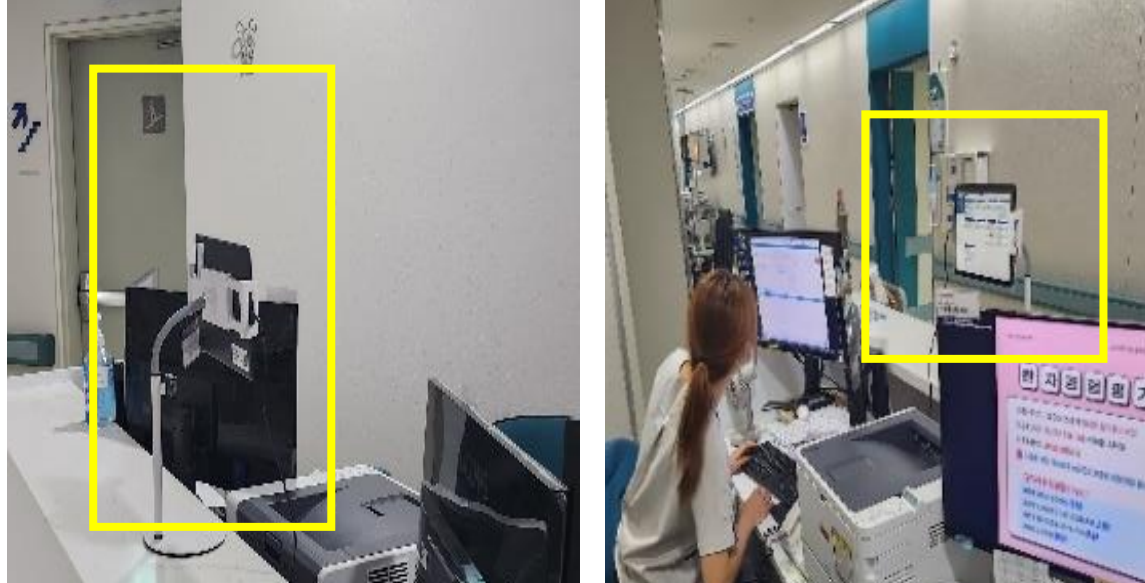
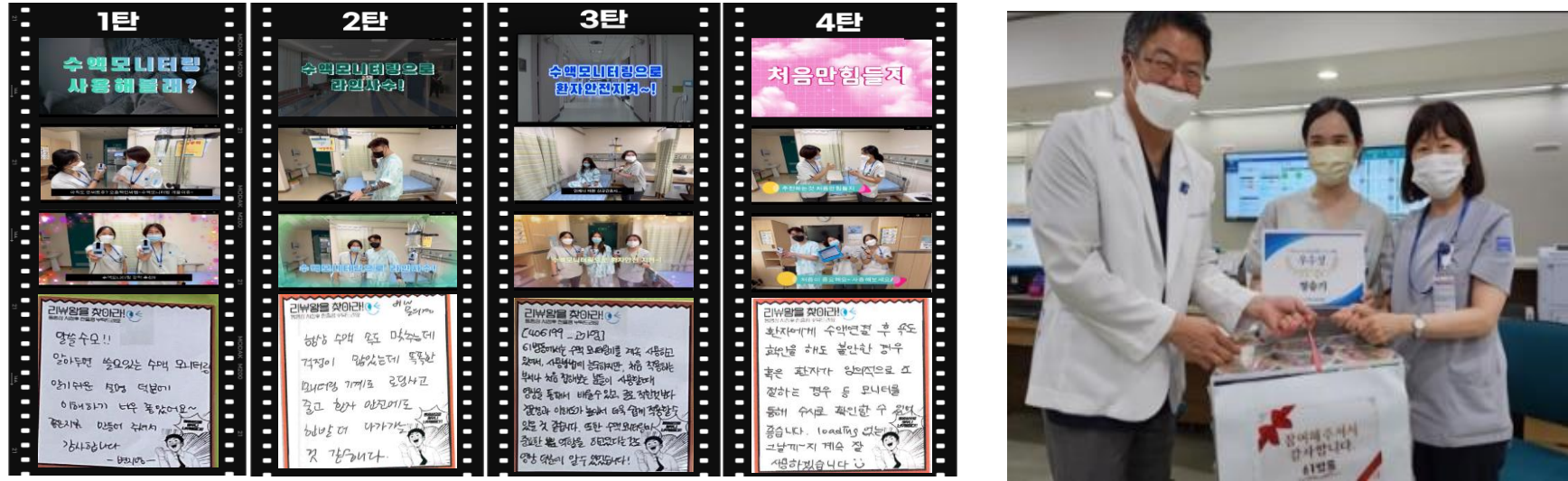
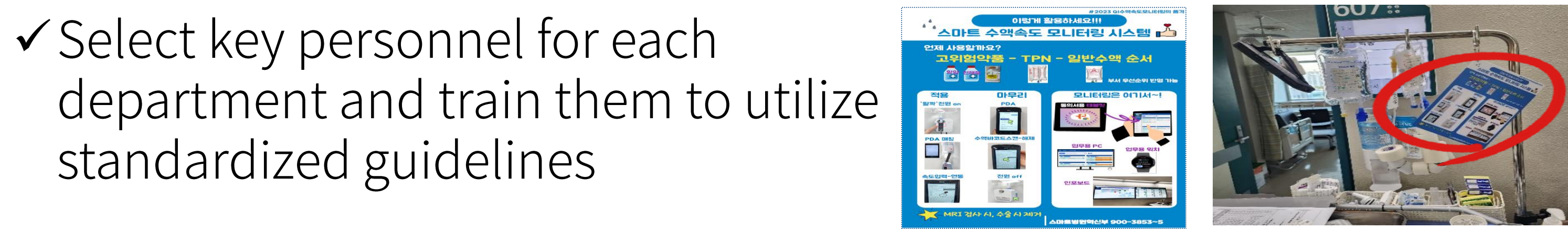
- ✓ Insufficient device quantity
- ✓ Lack of standardization of usage and response methods
- ✓ Lack of understanding of how to use

◆ Cause and Effect diagram(Fishbone diagram)



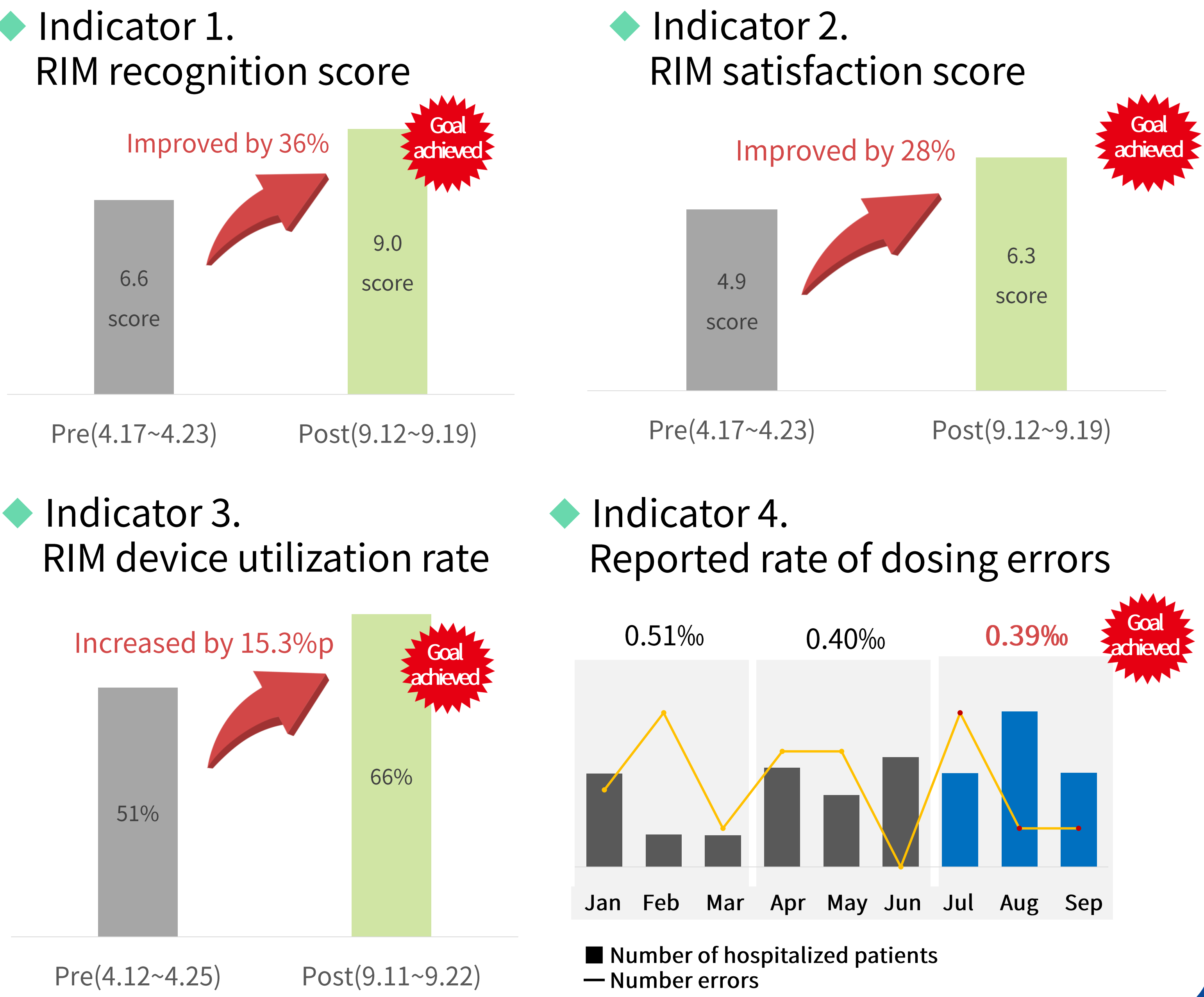
Strategy and Activities

- ◆ Collect user feedback and improve RIM
 - ✓ Addition of a sound alarm within the device, real-time rate and supplement convenience charging
- ◆ RIM application guideline training
 - ✓ Select key personnel for each department and train them to utilize standardized guidelines
- ◆ Motivation for use through contents for best practices
 - ✓ Strengthening public relations to improve application
- ◆ Expansion of multi-channel alarm system to notify speed of errors



Result

Data collection period	Indicator 1 to 3 (Pre) April 2023, (Post) September 2023, Indicator 4 (Pre) Q1 2023, (Post) Q3 2023
Data collection Methods	Indicator 1 and 2 - Surveys ; indicators 3 and 4 - Record Reviews
Data collection subjects	Five departments utilizing the RIM system



Conclusion & Suggestions

- ◆ As part of a new method to maintain the stability of intravenous infusion rates in hospitalized
- ◆ This innovative method is anticipated to propel advancements in field
- ◆ It is expected to enhance user engagement and patient-centered