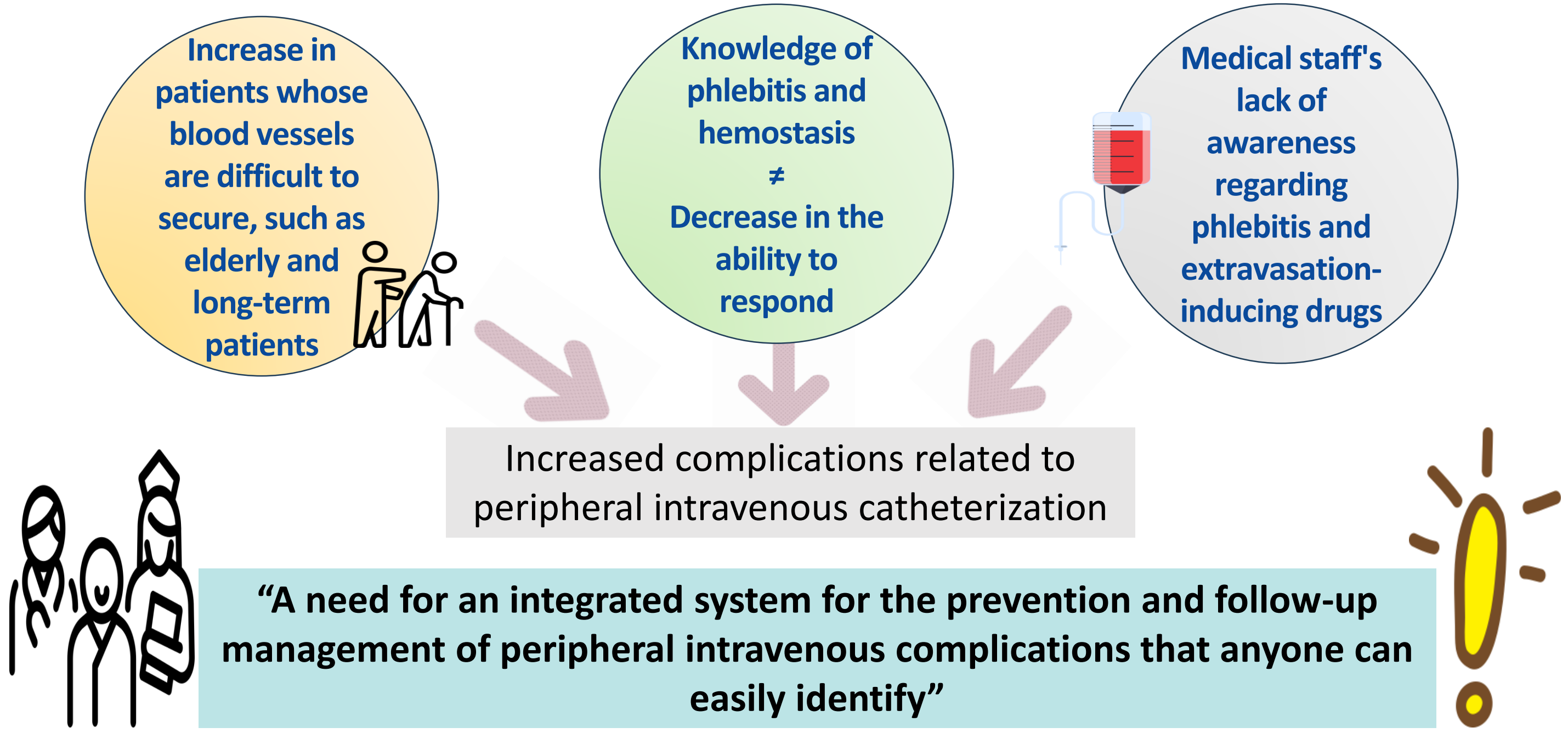


The Strengthening of Management Activities to Reduce Phlebitis and Drug Extravasation

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Introduction



Indicators and Goals

Indicator 1: Incidence of phlebitis

- ✓ Target: **2.16% → 1.9%**, 10% decrease from the preliminary investigation

Indicator 2: Incidence of drug extravasation

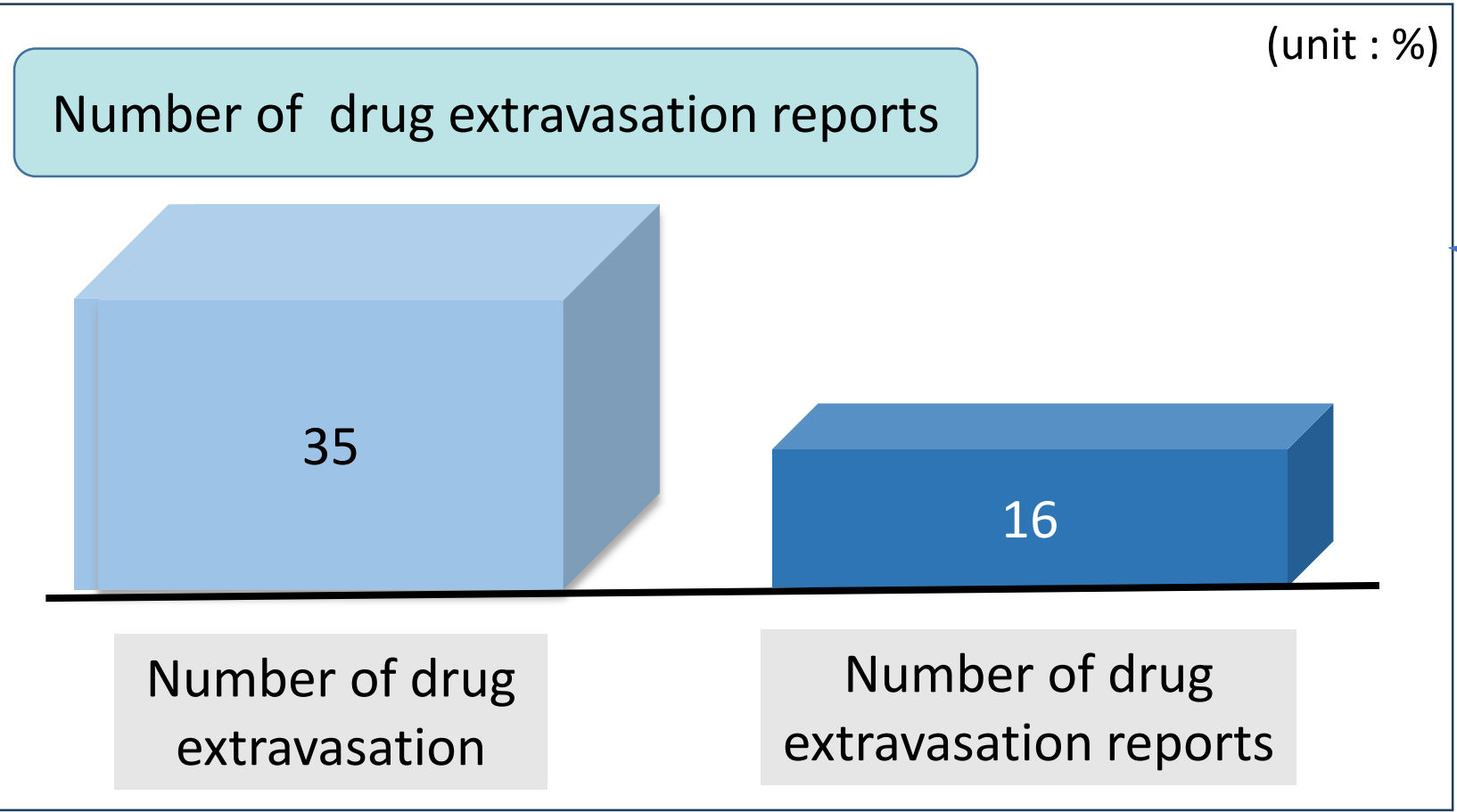
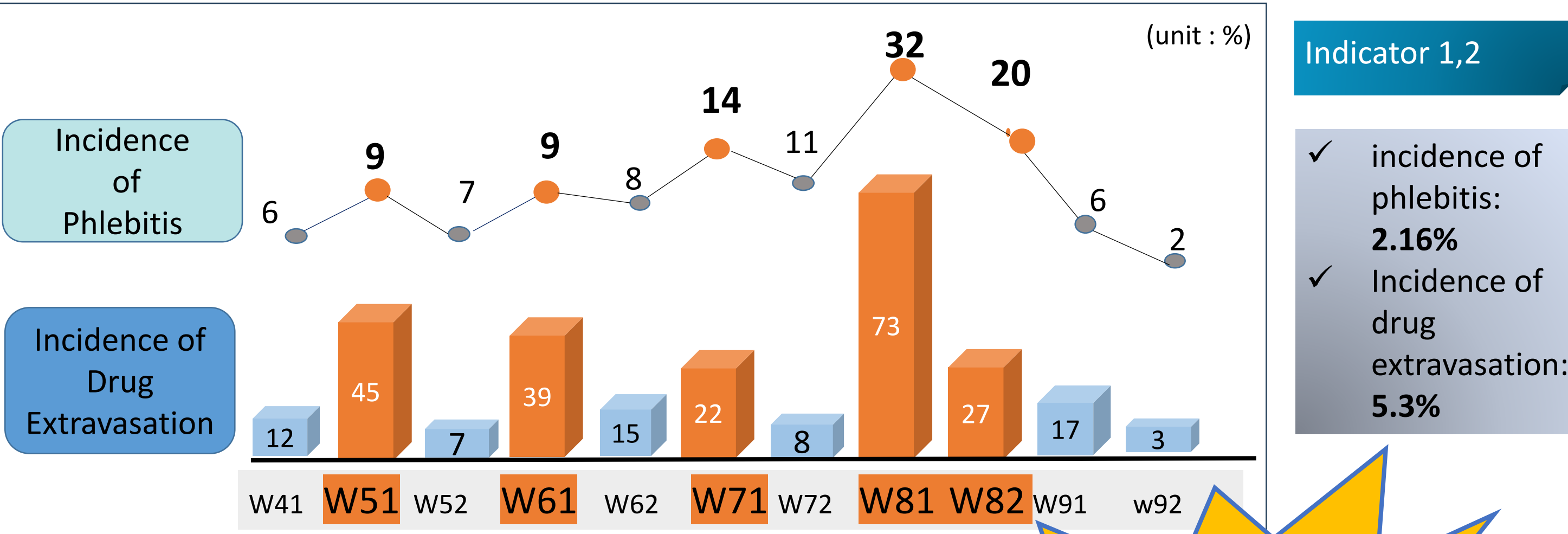
- ✓ Target: **5.3% → 4.8%**, 10% decrease from the preliminary investigation

Indicator 3: Drug extravasation report rate

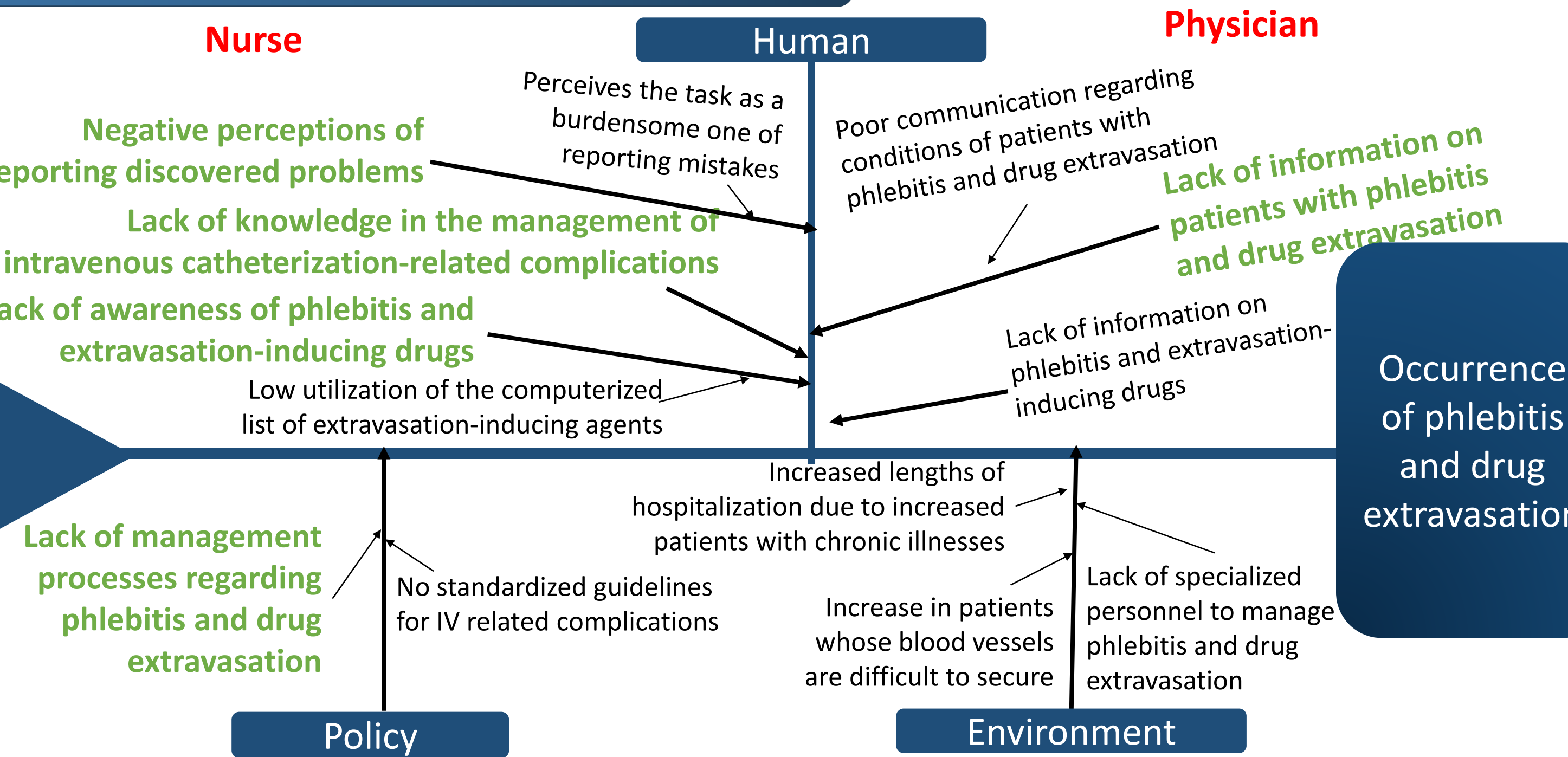
- ✓ Target: **45.7% → 68.6%**, 50% increase from the preliminary investigation

Methods

Preliminary Status

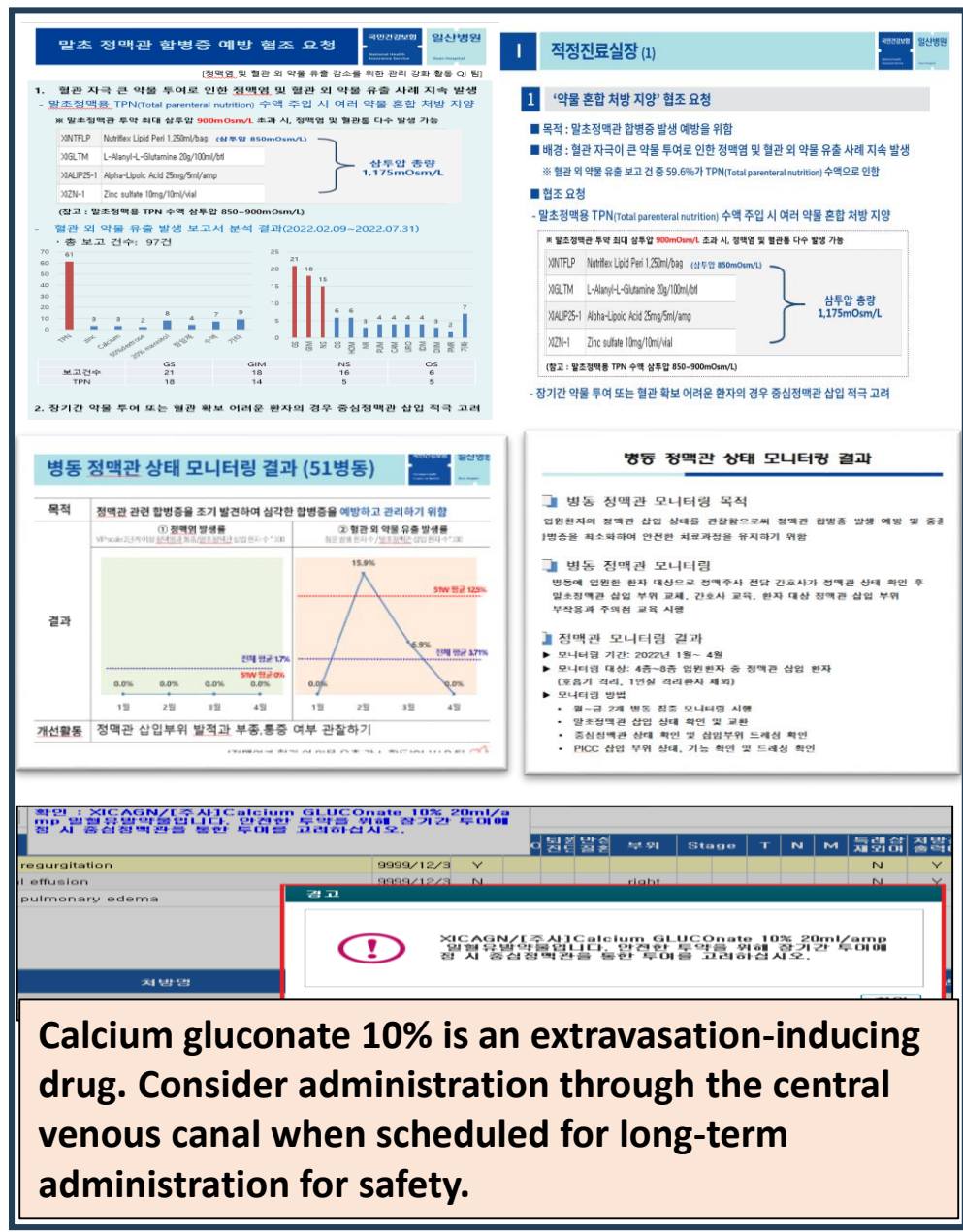


Cause-and Effect Diagram



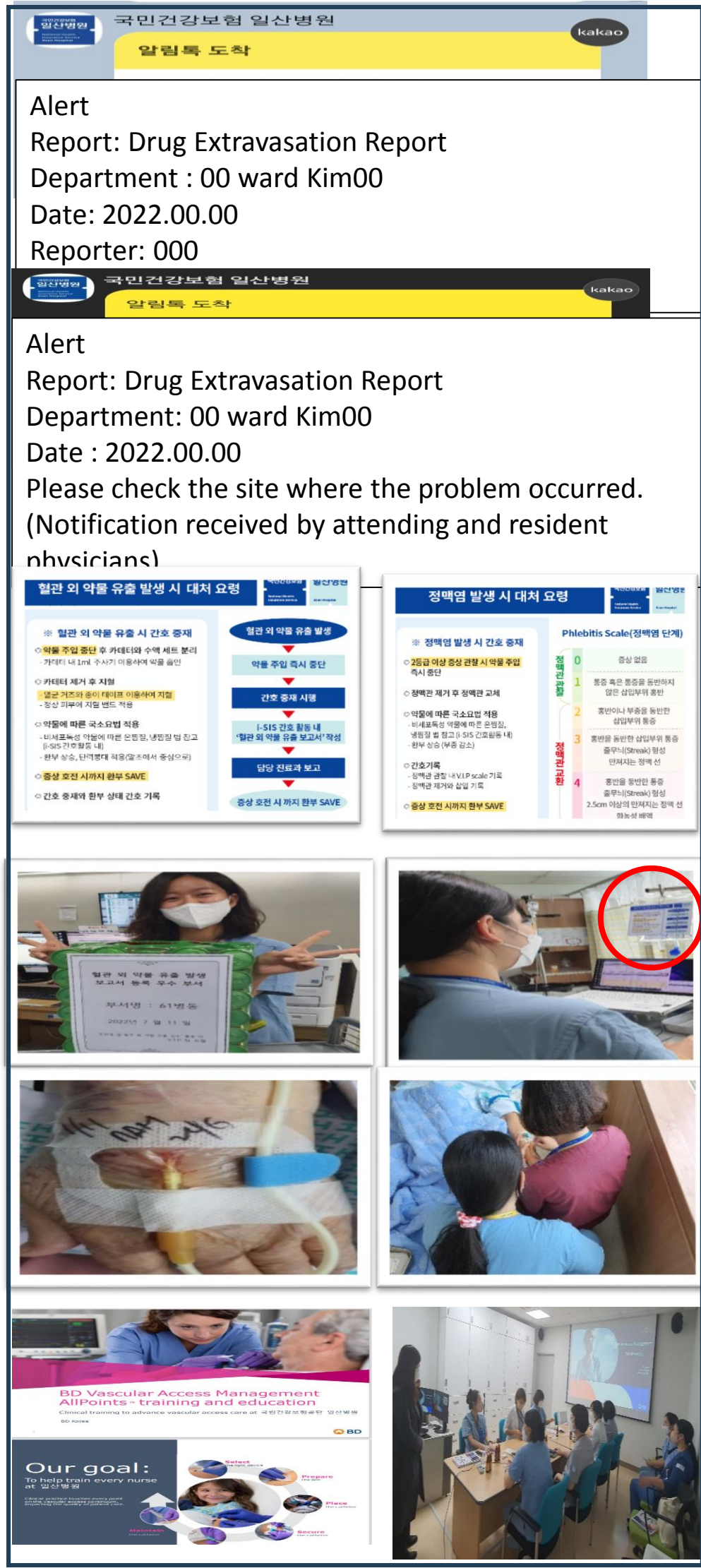
Prevention of the occurrence of phlebitis and drug extravasation

- ✓ Put up posts and distribute emails with examples of prescribing possible extravasation-inducing drugs and information on the occurrence of extravasation-inducing drugs for physicians by the treatment department
- ✓ Propose a request to refrain from mixed prescriptions of extravasation-inducing drugs (clinical directors' meeting)
- ✓ Share and distribute notices of wards' peripheral intravenous catheterization status monitoring results
- ✓ Generate a pop-up notification on the prescription screen when prescribing an extravasation-inducing drug



Management of phlebitis and drug extravasation

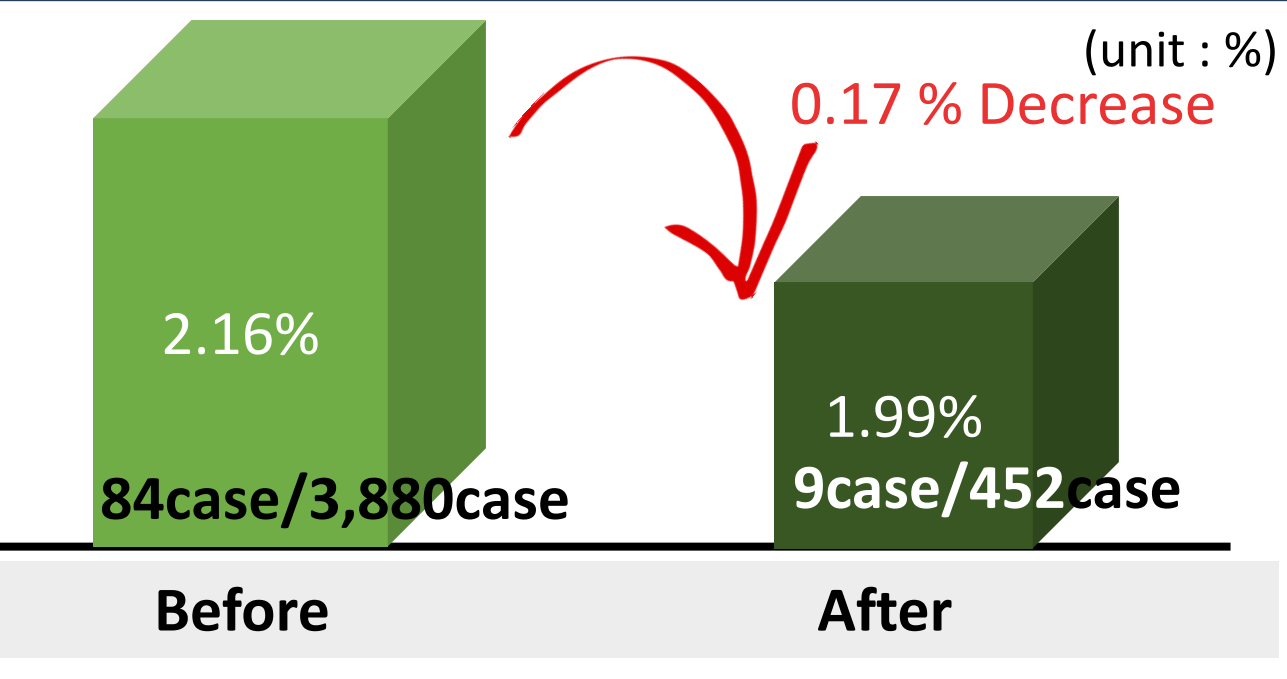
- ✓ Develop a registration notification text message system for attending physicians, specialists, and intravenous nurses when reports of drug extravasation are registered
- ✓ Recognize departments that excel in integrating computerization of drug extravasation reports and intervention methods for extravasation-inducing drugs, posting registration methods, and registering reports
- ✓ Develop a drug extravasation management process
- ✓ Reflect computerization on the drug extravasation report registration screen
- ✓ Create instructional cards on behavioral tips in the event of phlebitis and drug extravasation and place them in the ward nurse cart
- ✓ Enhance the management of early symptoms of peripheral intravenous catheterization complications during venous catheter monitoring activities (exchanging venous catheters, educating patients on symptoms)
- ✓ Monitor the progress of patients with drug extravasation
- ✓ Operate specialized programs to improve peripheral intravenous management for nurses (BD, VAM programs)



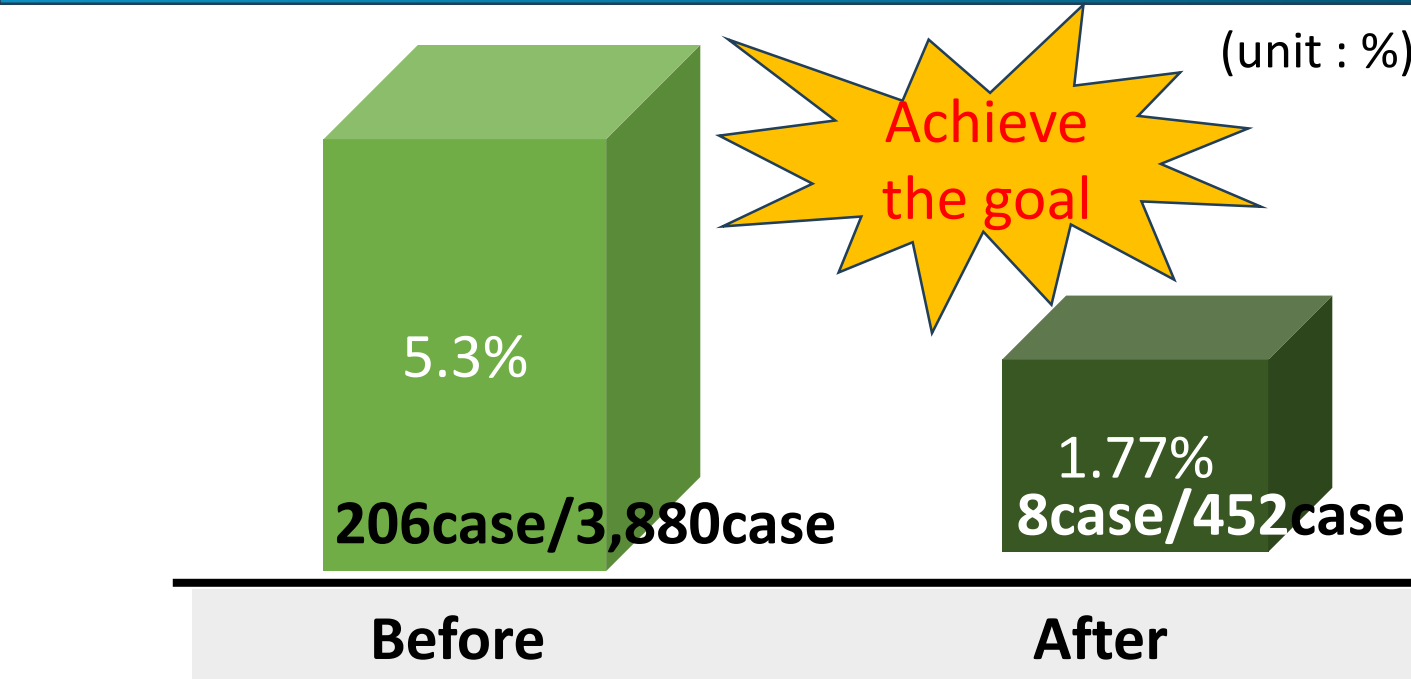
Results

- ✓ Indicator 1, 2 Survey period: (Before) Jan. 1 – Dec. 31, 2021 (After) Aug. 1 – Sep. 15, 2022

Indicator 1: Incidence of phlebitis

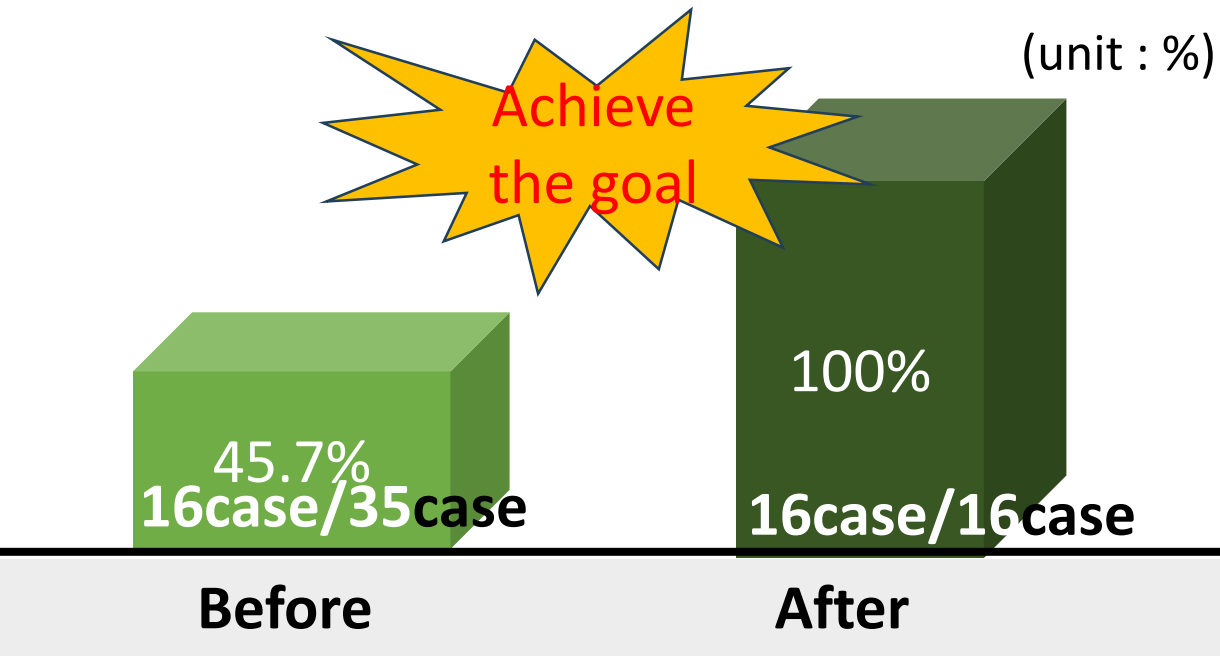


Indicator 2: Incidence of drug extravasation



- ✓ Indicator 3 Survey period: (Before) Feb. 9 – Apr. 15, 2022 (After) Aug. 1 – Sep. 15, 2022

Indicator 3: Drug extravasation report rate



- Indicator 1: Target 1.9% → **1.99%**
- Indicator 2: Target 4.8% → **1.77%**
- Indicator 3: Target 68.6% → **100%**

Conclusion & Suggestions

- Conclusion**
 - Significant reduction in the number of phlebitis and drug extravasation due to increased awareness of peripheral intravenous complications-inducing drugs among practitioners
 - Improved ability to recognize and manage intravenous complications of nurses by implementing drug extravasation reports and peripheral intravenous management programs
- Suggestions**
 - Implement vascular access device guidelines based on vascular status, medications administered, and the expected treatment duration
 - Deploy dedicated personnel to prevent phlebitis and drug extravasation and to ensure continuous and systematic management
 - Establish a standardized management system using drug extravasation reports for outpatients, including wards