

Emergency Cart Standardization in Efficient Ways for patient-safety: Quality Improvement Activity Experience

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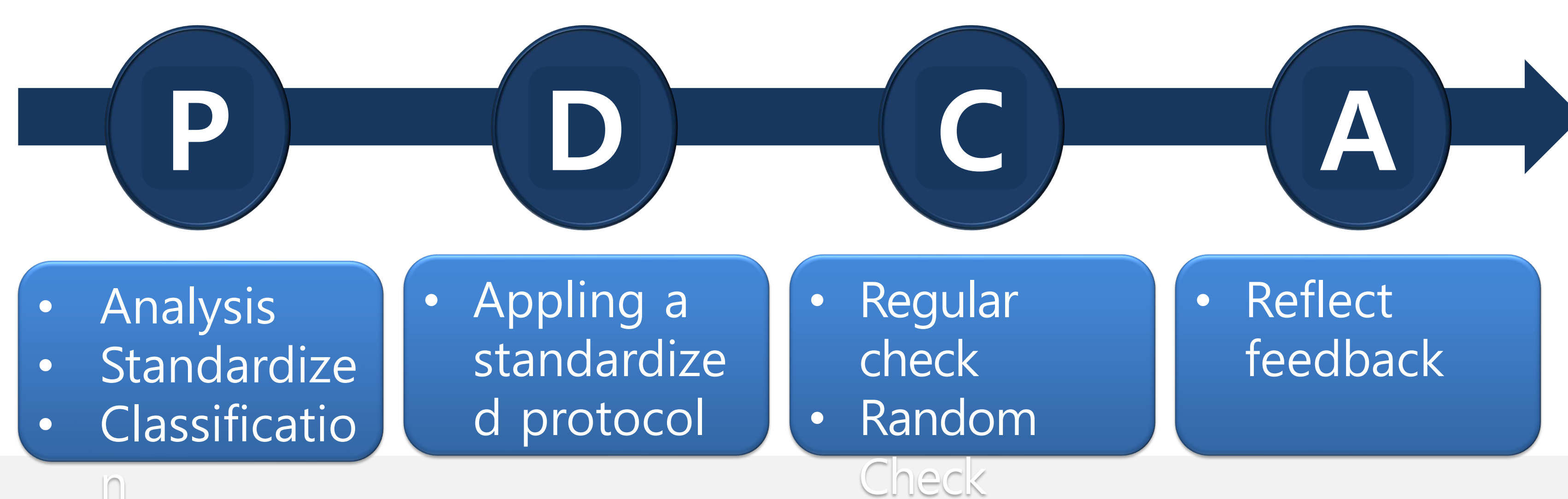


1. Introduction

Adequate management in unexpected emergent situations during hospitalization is an important factor in patient safety. An emergency cart (E-cart) is essential equipment for storing emergency instruments such as a defibrillator and drugs (epinephrine, inotropic, etc.). Using disorganized emergency carts may negatively impact performance during an emergency situation, which is related to patient safety. Therefore, this quality improvement (QI) activity was intended to standardize emergency carts for ensuring patient safety and providing high-quality care.

2. Methods

From February to November 2022, E-carts were evaluated and analyzed to identify problems through multi-departmental cooperation for standardization. Based on the analysis, the activity was carried out using the Plan-Do-Check-Act (PDCA) cycle.



3. Result

A Total of **126 E-carts** were investigated.

- 1) **A protocol** which defines essential items required for an E-cart was evaluated.
- 2) **Four types of protocols** were categorized : ward/intensive care unit/operating room/exam room.
- 3) **Unified arrangement** of E-cart according to the purpose of usage.
- 4) **Standardized labeling** was performed individually at the same place for rapid and accurate identification
- 5) **A standard checklist** was developed for the standardized regular inspection and management of E-carts.

All E-carts were locked by single-use locks after all items of the E-cart were prepared.

E-cart has been properly inspected only by whether it is locked.

Those activities have **improved staff Self-efficacy and satisfaction** have been enhanced with well-organized E-carts and a standardized protocol.

Before



After



Before



After



Medications IV fluids IV catheter Equipment Intubation Supply Oxygenation



Single-use lock with Serial Number



Applied separately depending on the frequency of the usage

4. Conclusion

An organized and standardized protocol for emergency carts was developed. It contributed to increasing the visibility and accountability of the staff, regardless of who or where to use it. In addition to minimizing the complexity of emergency carts and standardizing the equipment and checklist, it improved outcomes in emergencies.

