



Emergency equipment in the ICU: a rapid QIP

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The Problem

The resuscitation council's quality standards for acute care equipment and drug lists states that "A reliable system of equipment checks and replacement must be in place to ensure that equipment and drugs are always available for use in a cardiac arrest. The frequency of checks should be determined locally".¹ Anecdotal evidence among clinicians in ICU suggests that many of us have been in situations where emergency equipment has not been available when it was needed. This quality improvement project aimed to explore this and improve practice to meet the resus council standard.

Understanding the problem

The current system of checks emergency equipment checks in ICU involves:

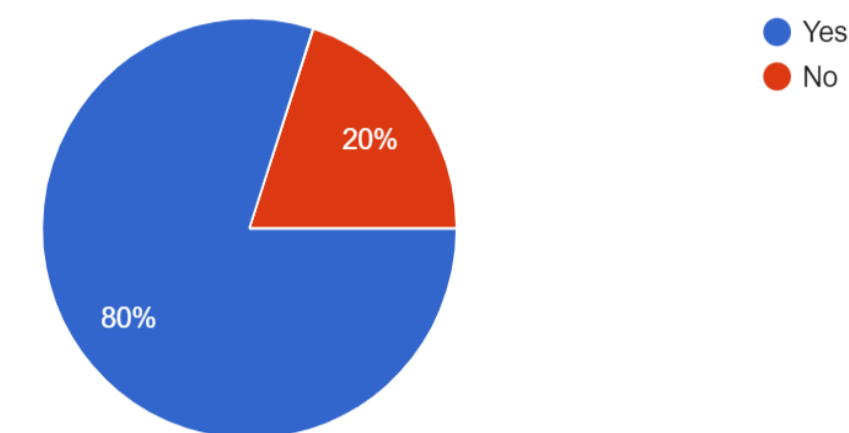
- Daily checks for presence of equipment and to check bags sealed
- If any bags unsealed, full check of contents triggered
- Weekly full checks on contents of emergency equipment and drug bags
- QR codes used to facilitate checks. These link to google forms with checklists on

At the start of the QIP, it was discovered that access to the results of the google forms was still under the ownership of a doctor who had rotated out of ICU a year prior

Baseline information

An informal survey was carried out to identify staff experiences and perspectives on how to improve access to emergency equipment

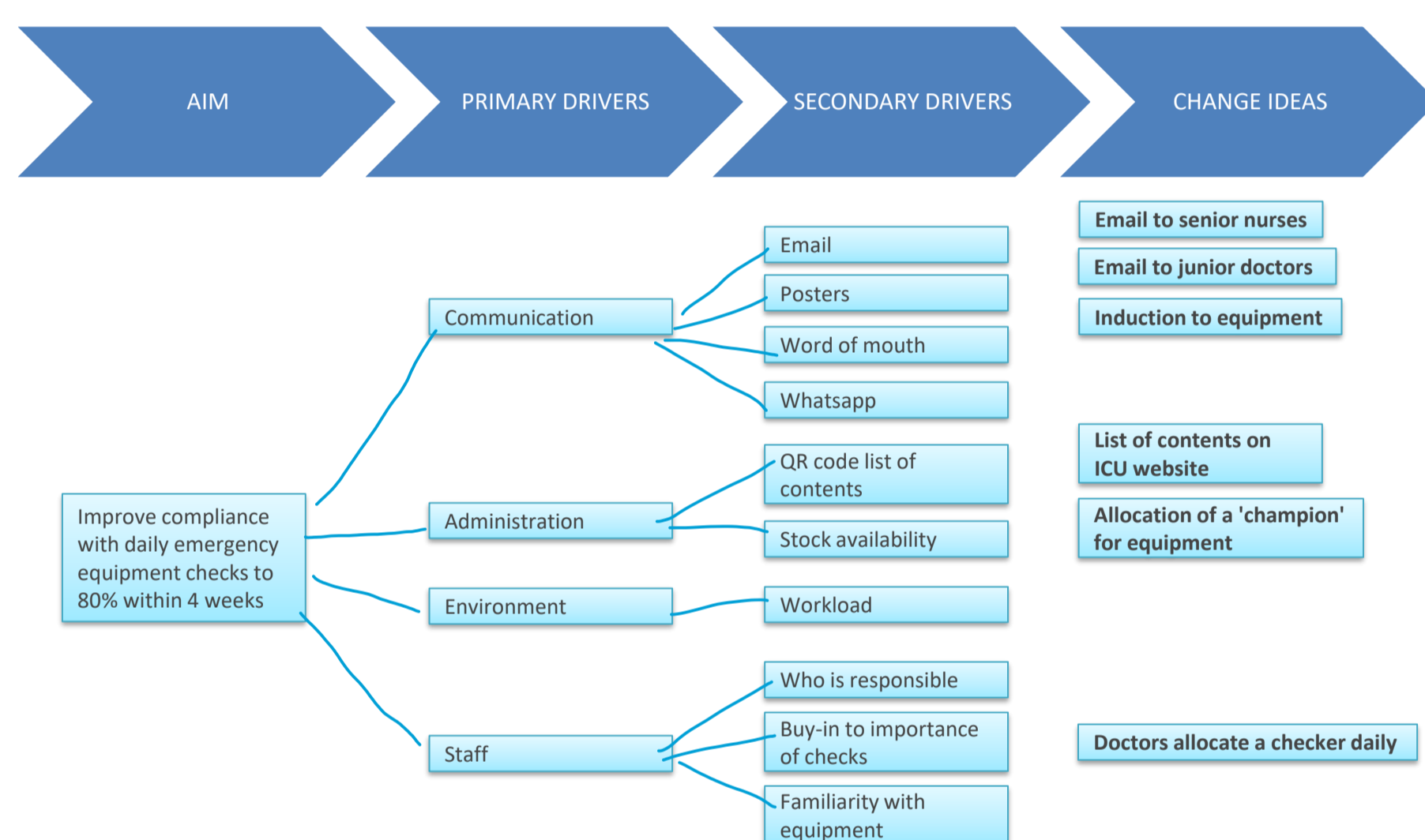
Have you ever attended a clinical emergency and found that a piece of equipment or drug was not in the bag when it should have been?
10 responses



Decision was made to focus on improving compliance with daily bag checks, understanding that this may help to identify unsealed, therefore inadequately stocked, equipment
After gaining access to the google forms, it was found that daily checklist had only been completed 4 times in 6 months

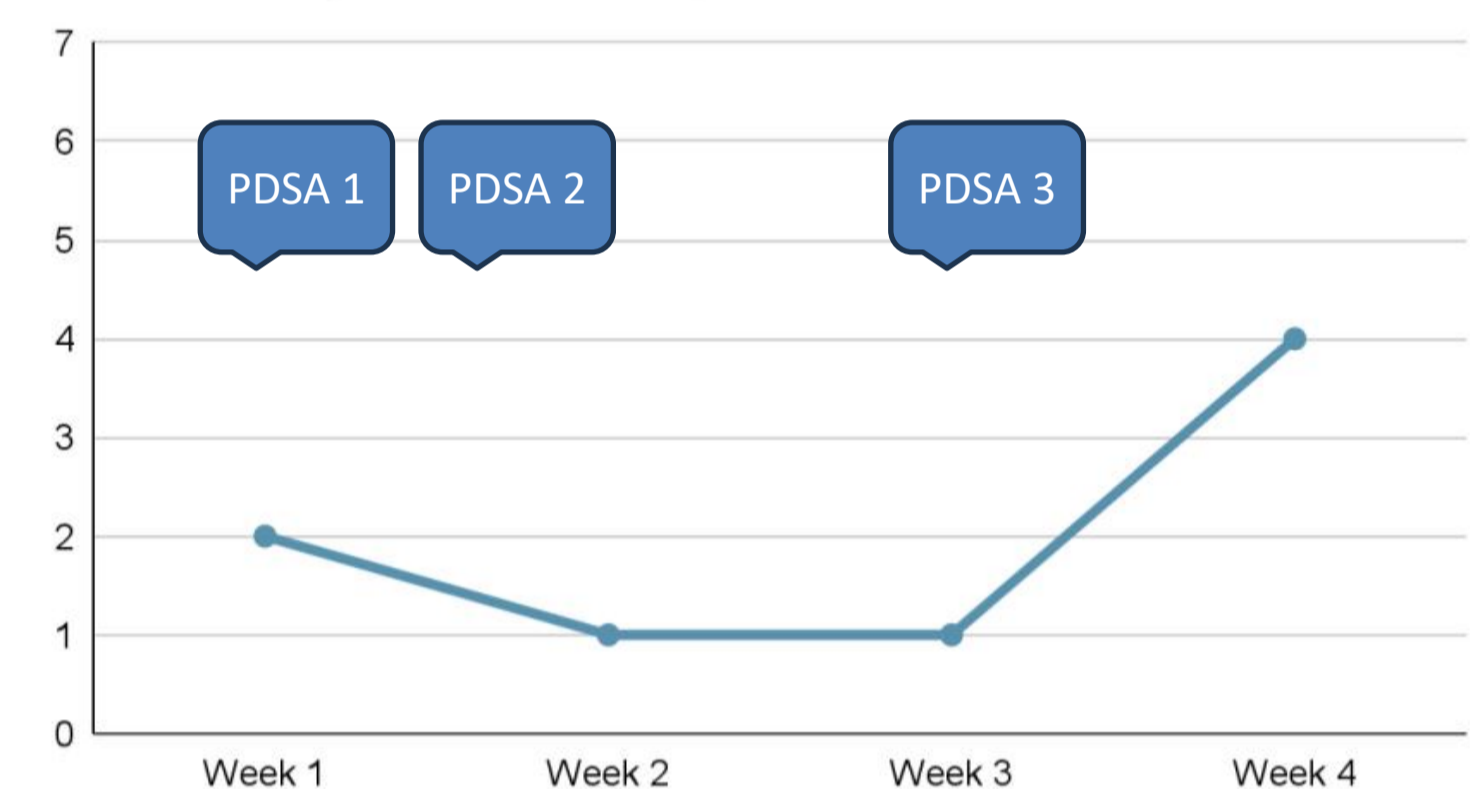
Aim: Improve compliance with daily emergency equipment checks to 80% in 4 weeks

Driver Diagram

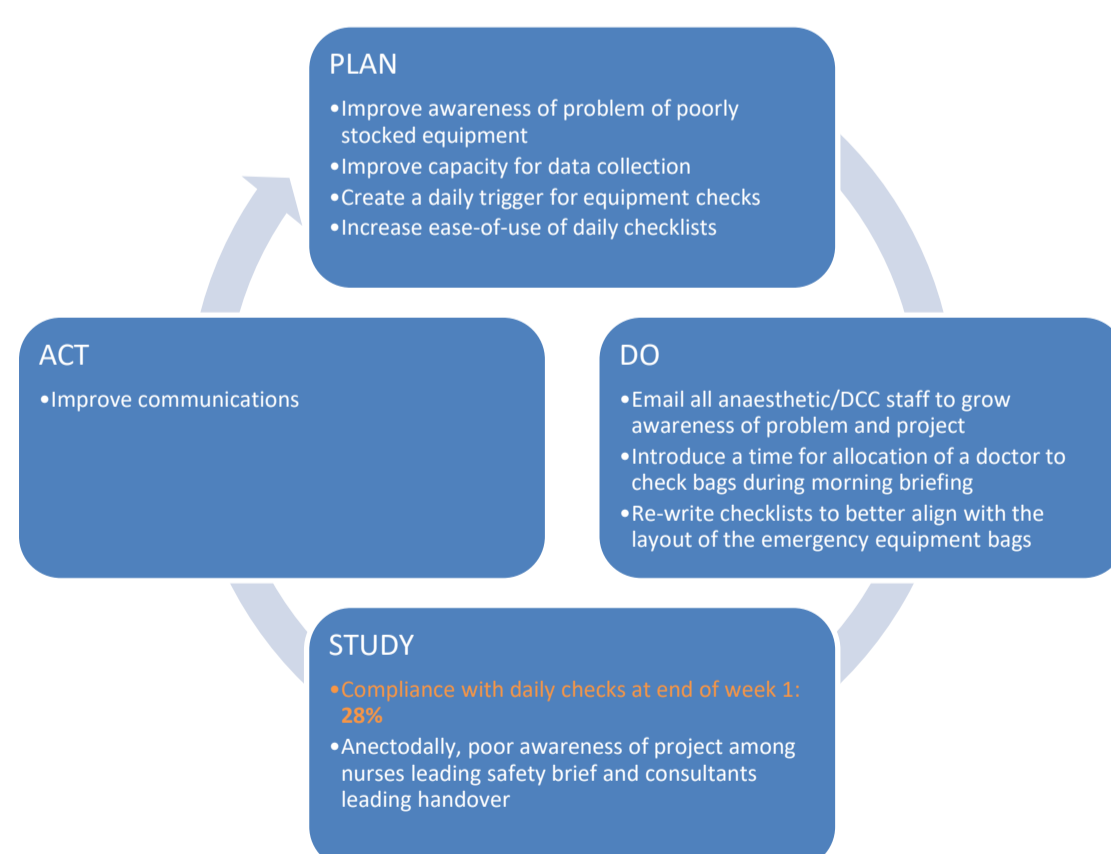


Run Chart

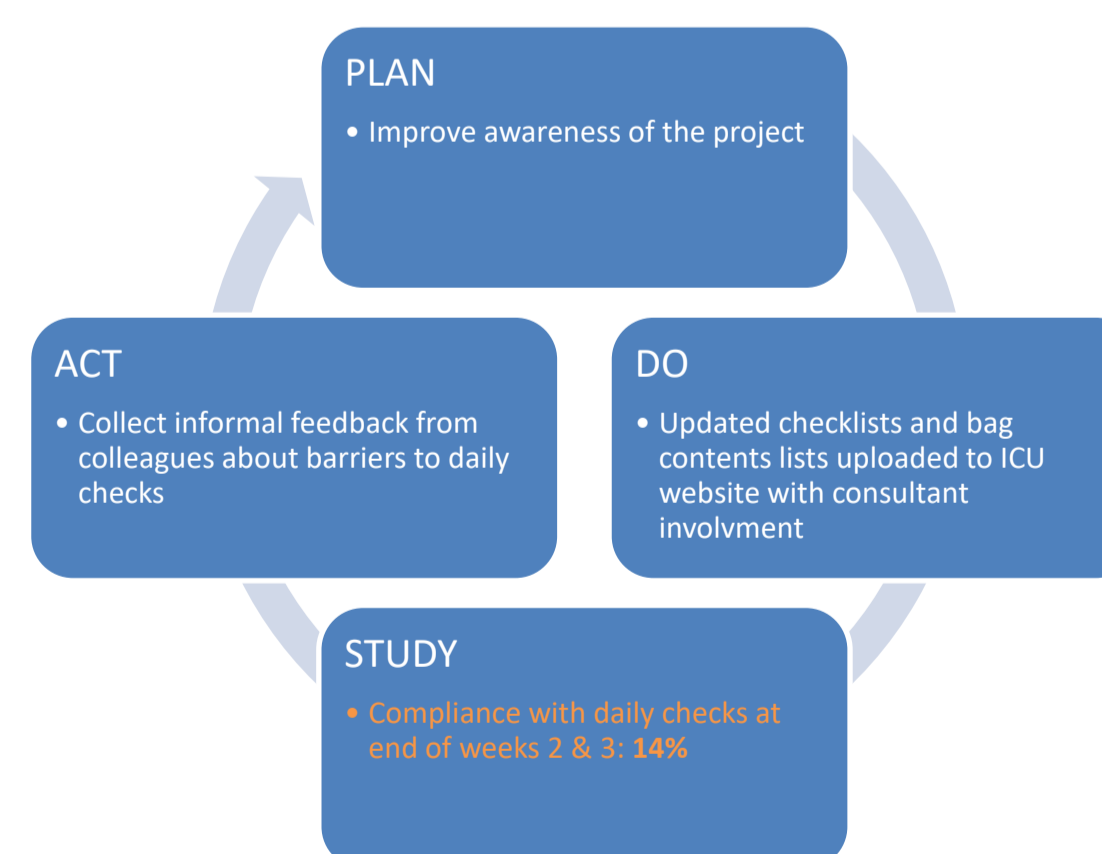
Number of days checklist completed



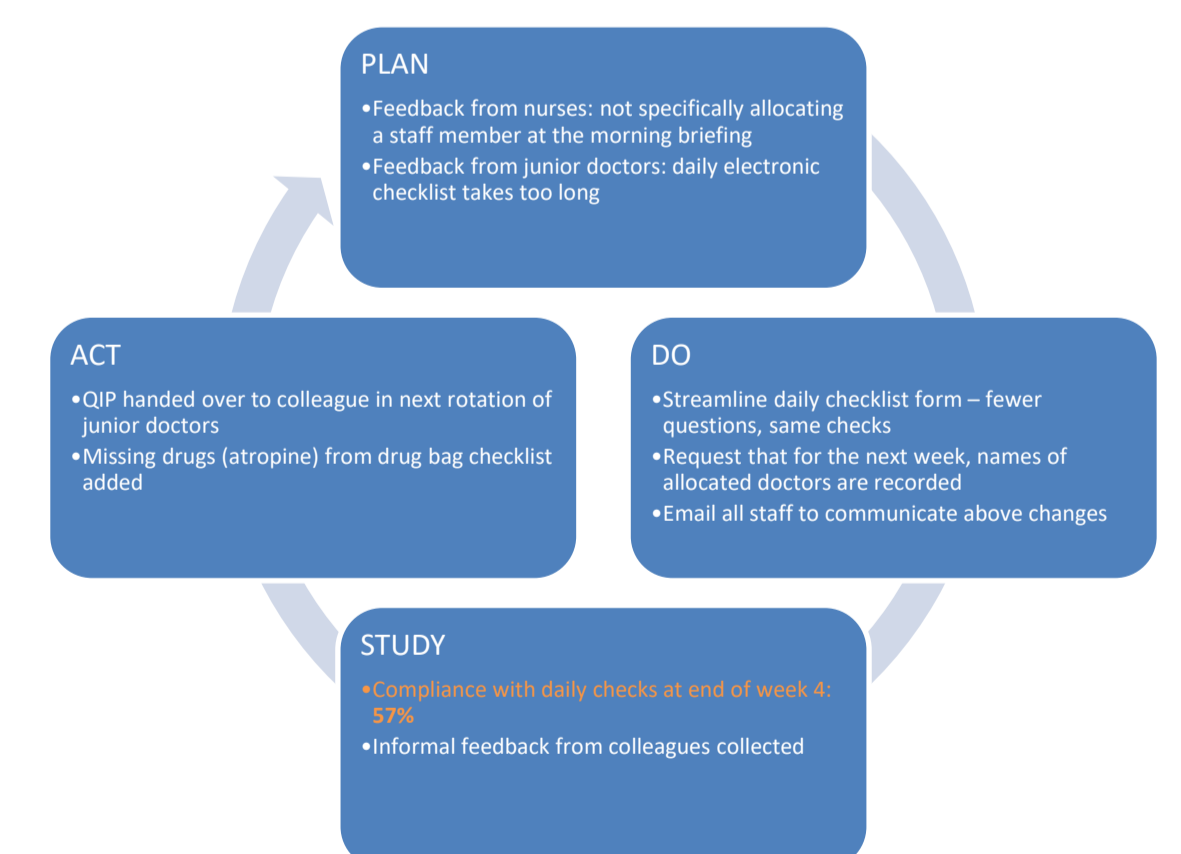
PDSA 1



PDSA 2



PDSA 3



Conclusions

The project has highlighted the issues contributing to missing equipment. Although it didn't meet the aim for 80% compliance, it did allow colleagues to informally feedback the following issues which led to improvements:

- Missing drugs from drug bag checklist
- Shortened daily checklist is much quicker
- Checklists in Cheltenham do not align with bag contents
- Daily checks triggered full checks which identified out of date equipment, which was then replaced

It also seems to have contributed to a change in culture where the bags are checked more frequently

This project has been handed over to another junior doctor for continuity as colleagues rotate. There is now a need to focus on updating the Cheltenham equipment and weekly checks.

¹<https://www.resus.org.uk/library/quality-standards-cpr/acute-care-equipment-and-drug-lists>