



# To Reduce the Environmental Exposure Risks for all SACT trained staff (and any everyone else) in Chemotherapy Outpatients

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## 1. The Safety Concern

There is a recognised occupational risk to Health Care Professionals (HCP) who prepare, handle and administer hazardous drugs including Systemic Anti-Cancer Therapies (SACT).

NIOSH (2004) issued a warning:

Working with or near hazardous drugs in health care settings may cause skin rashes, infertility, still births, miscarriage, birth defects, menstrual dysfunction, and leukaemia or other cancers.

## 2. Background

Vandenbroucke and Robays (2001) found cytotoxic contamination was caused in 25% of cases when spiking IV bags but 100% of cases when removing spikes from completed infusions. The NHS (2018) recommend that the practice of de-spiking "empty" bags of cytotoxic chemotherapy should be stopped as it provides unacceptable exposure risks for staff, other patients and visitors.

## 3. The QI Team

**Lead:** Alison Lovett-Turner

**Sponsor:** Charlie Candish **Gold Coach:** Gary Monahan

**Facilitators:**

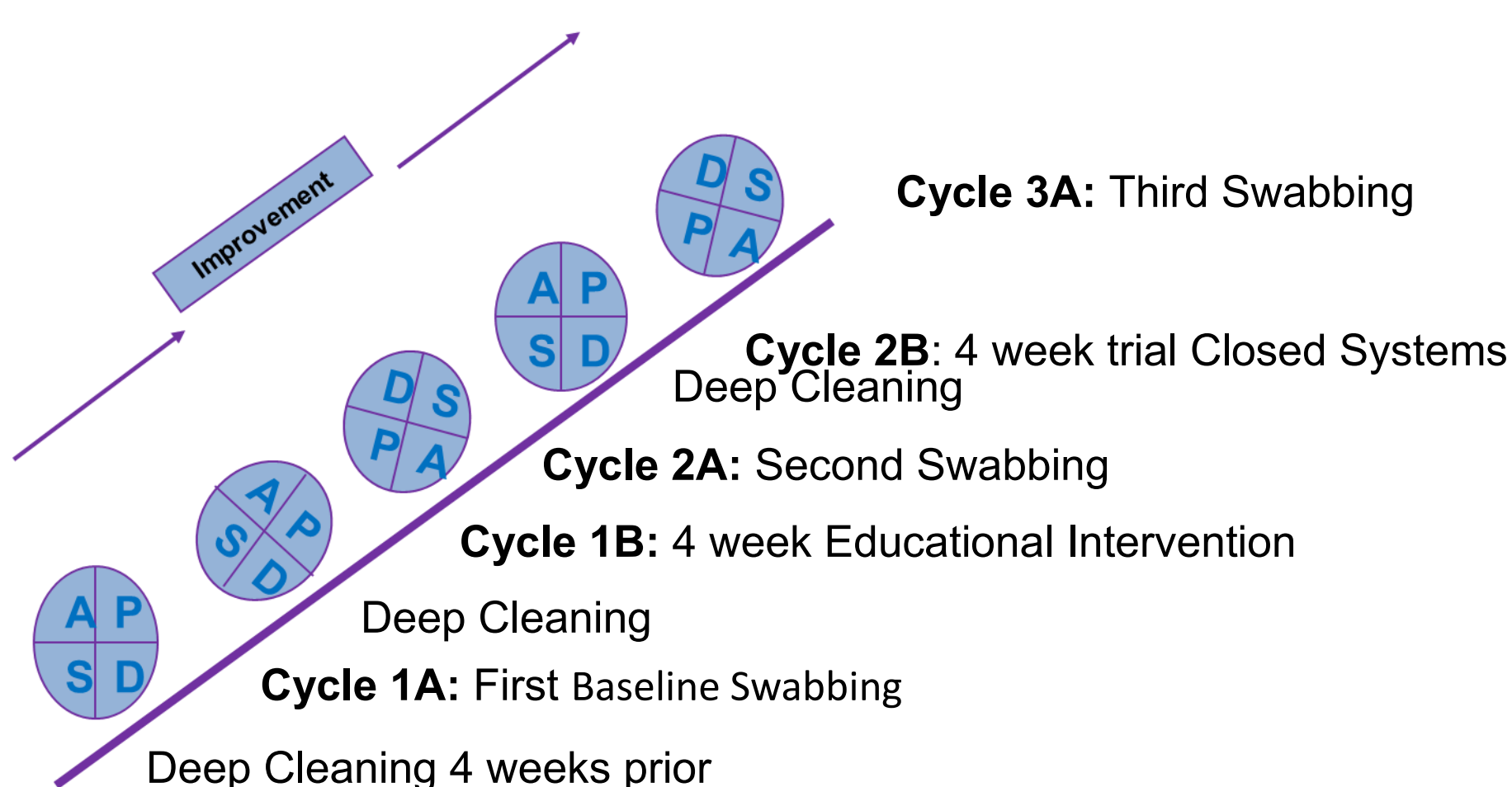
- Tracy Cullerne, Matron Oncology
- Andrew Seaton, Health and Safety Lead
- Julie Ford, Manager of CTOPD
- Sally Burge, Manager of CRN
- Amanda White, Lead Pharmacist
- Clare Roberts- Technical Services
- Catherine Lewis, Nurse CTOPD

## 4. Concept

Evidence suggests both educational interventions and Closed Systems (CS) should be implemented to reduce occupational exposure risks.

A CS is a physical system that does not allow vapours and aerosols in or out of the system reducing contamination risks.

## 5. PDSA Cycles



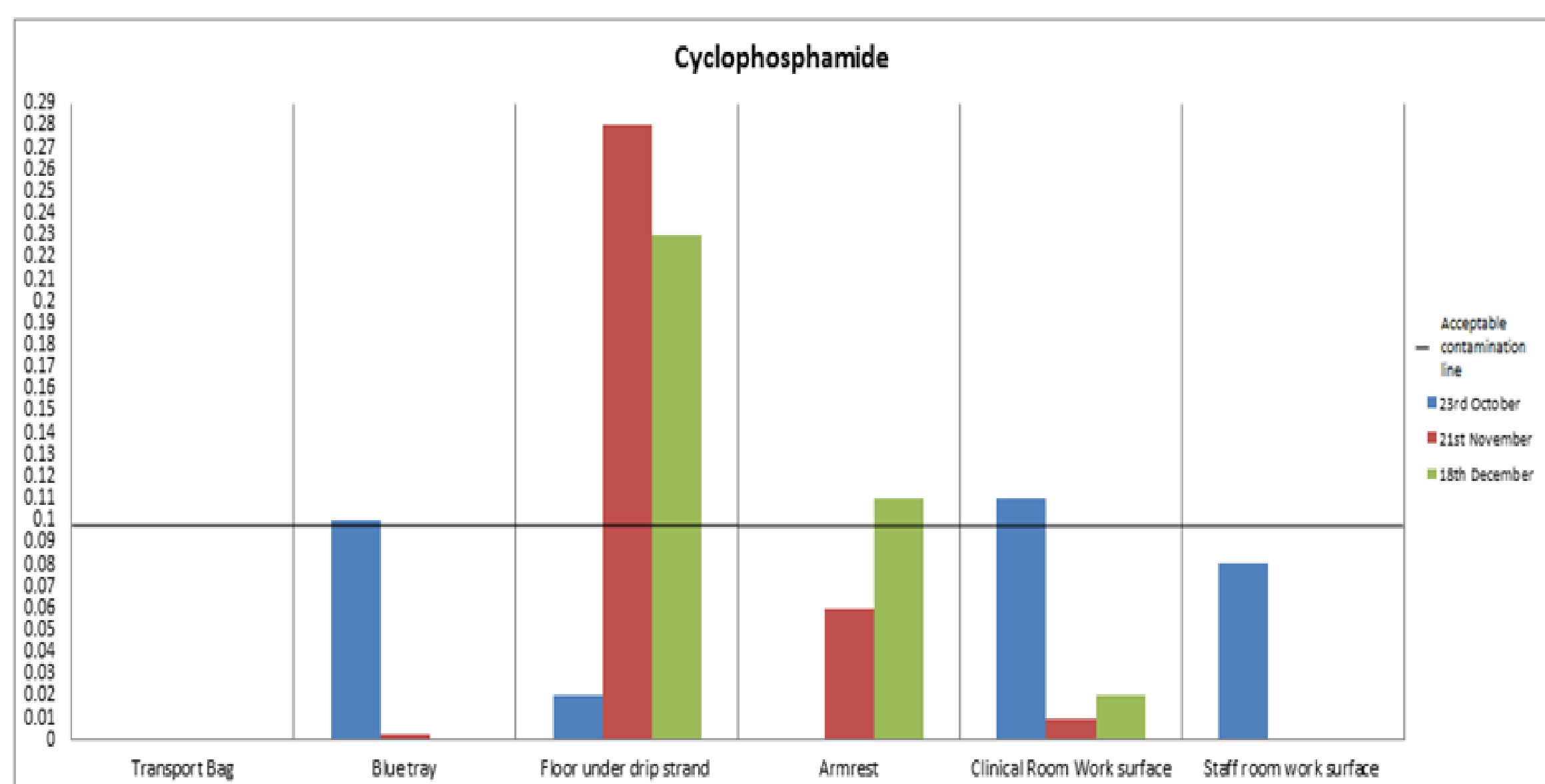
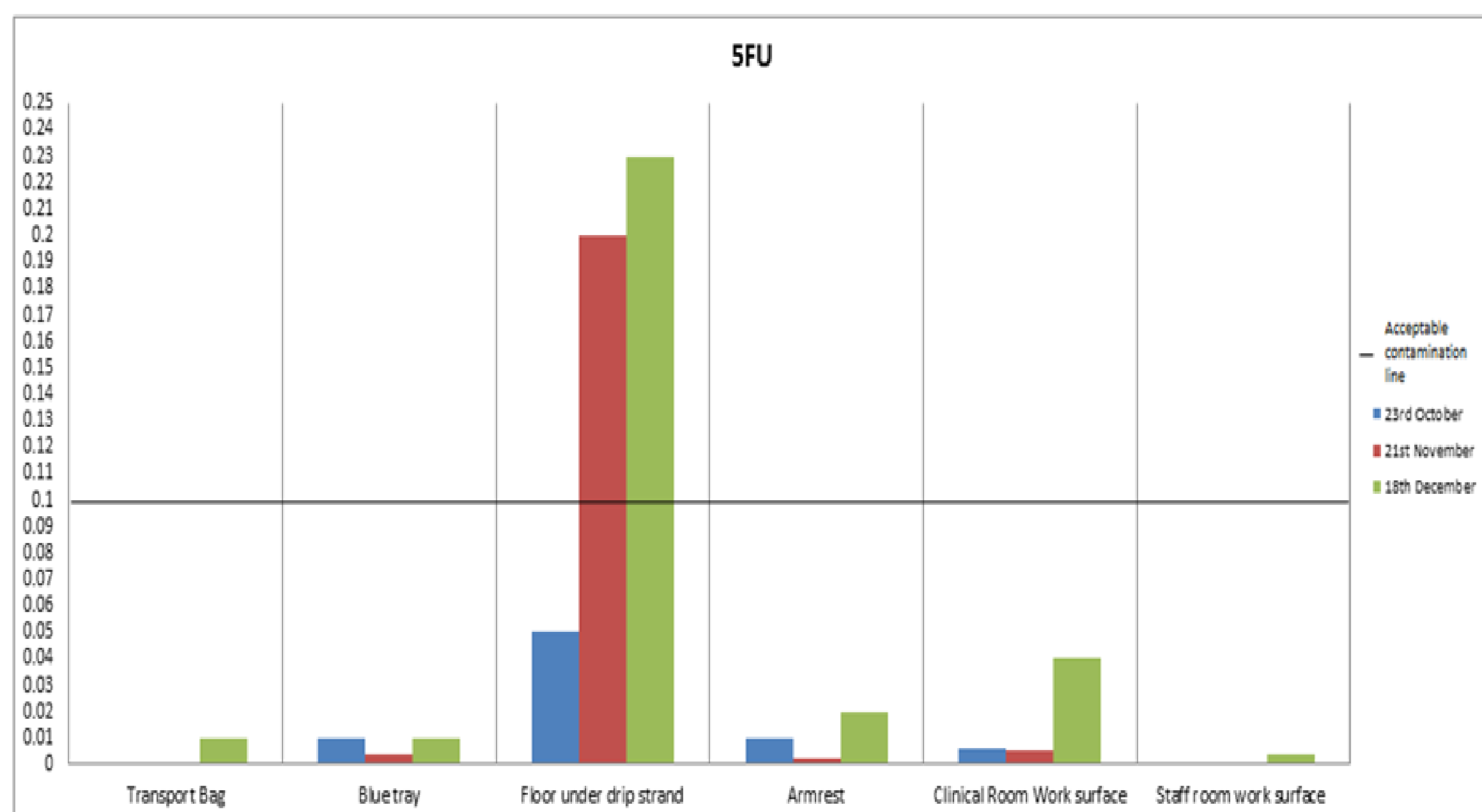
## 6. Results

Low level contamination was found in all areas tested. Environmental contamination levels of <0.10 are considered acceptable as at this level no contamination shows up in staff urine. However, there is limited evidence to support this.



## 7. Summary

The swab results showed that low levels of contamination are present in the patient treatment area. The floor, blue trays and arms of patient chairs were the most contaminated areas. The educational interventions importantly did significantly reduce levels in the staff room, protecting staff from the risk of accidental ingestion.



## 8. What Next

Even after CS were introduced contamination still remained which implies that they cleaning methods within the area need to be reviewed and there is a plan to swab before and after deep cleaning to test the effectiveness of current methods. The results will be shared with Clinical Governance and Trust Board.