

Introduction

New anaesthetic drug trolleys introduced into three obstetric theatres.

- No standardised layout.
- Cluttered and disorganised.
- Variable drugs and items within.
- Confounding human factors in emergencies and critical incidents.

Ergonomics and Human Factors

- Most used items towards the top to avoid bending.
- Remove infrequently used or unnecessary items to improve workspace area and reduce possibility for errors.
- Removing clutter to allow easy visualisation of items needed, which can be seen by the whole team.
- Standardised layout to avoid confusion and reduce cognitive load during emergencies.
- Relevant checklists and protocols.

Methods

Staff survey to gather information and opinions. Opinions sought from senior ODPs.

Survey Results (17 Responses)

Majority (53%) of the respondents were unhappy with the existing layout of the obstetric drug trolleys.

Common drugs used in individual practice:

Emergency drugs required: ephedrine, metaraminol, phenylephrine, glycopyrrolate, atropine

General anaesthesia: propofol, thiopentone

Antiemetics: dexamethasone, ondansetron, metoclopramide

Analgesics: diclofenac (PR & IV), paracetamol (IV)

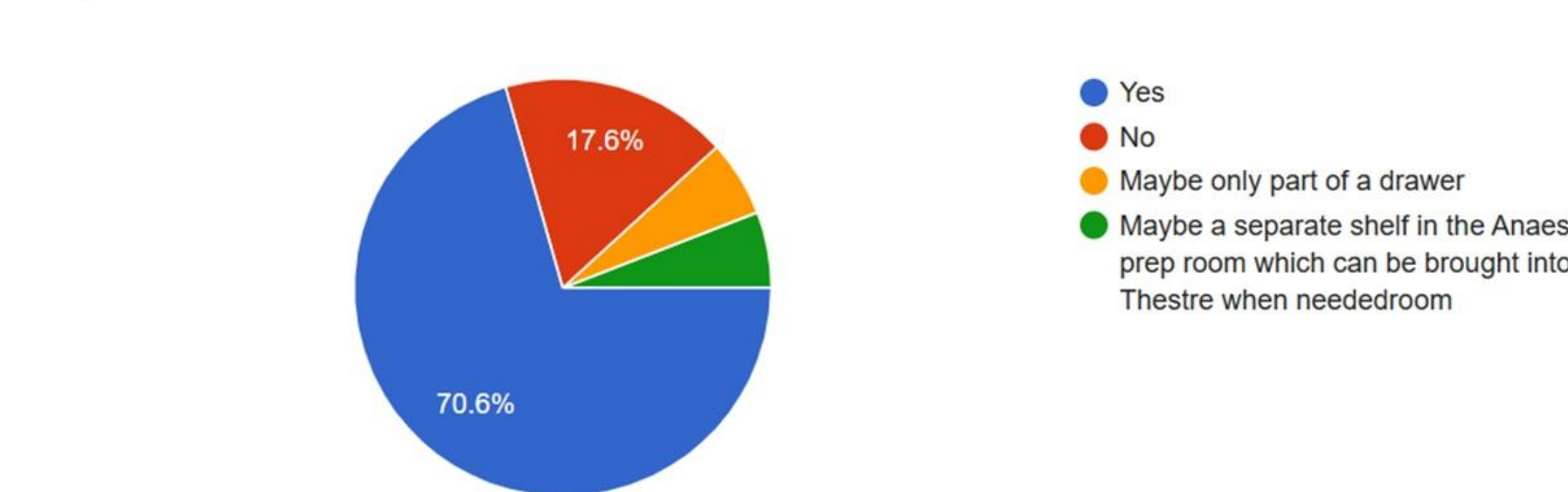
Additional drugs: tranexamic acid, labetalol, magnesium, hydralazine, terbutaline

Obstetric Theatre Drug Trolleys: Organisation with Staff Feedback, Ergonomics and Human Factors in Mind.

Dr K. Archer, Dr H. S. Ng and Dr I. Walker. Birmingham Heartlands Hospital, Bordesley Green East, Birmingham, B9 5SS.

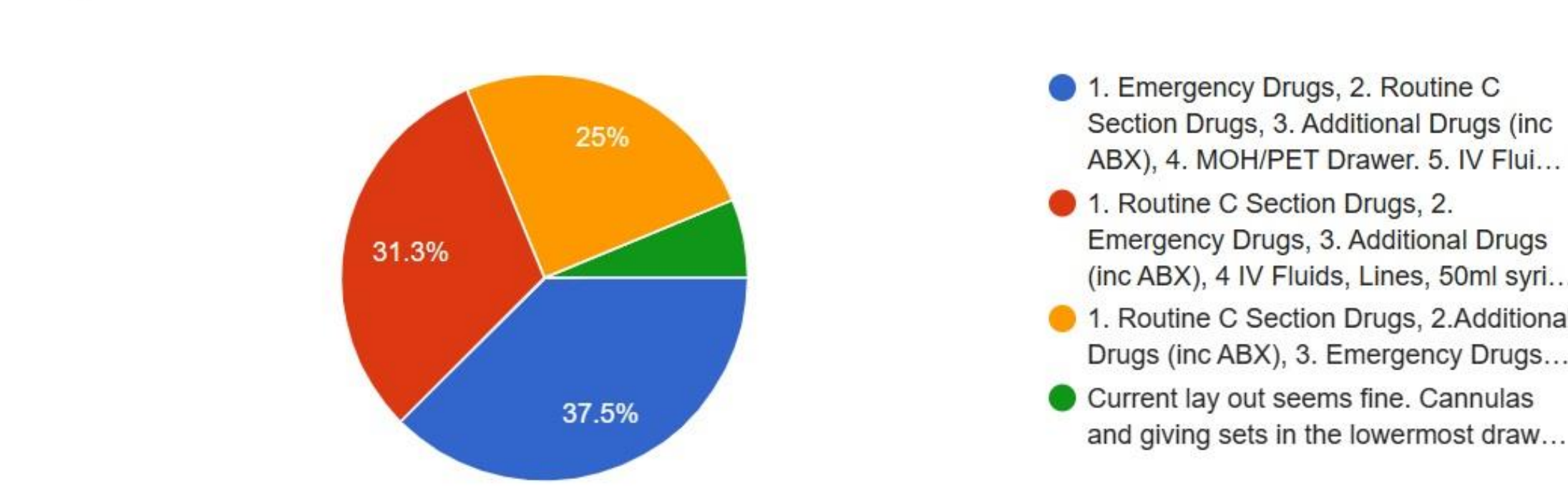
Do you think there should be a drawer dedicated to Major Obstetric Haemorrhage and Pre-Eclampsia Treatment?

17 responses



In the new drug trolleys, which order do you think is most logical/helpful/useful? (Routine Caesarean section drugs - vasopressors, antibiotics, antiemetics)

16 responses



How We Standardised Our Drug Trolleys:

Drawer 1:

Emergency Drugs

Drawer 2:

Routine Caesarean/Procedure Drugs

Drawer 3:

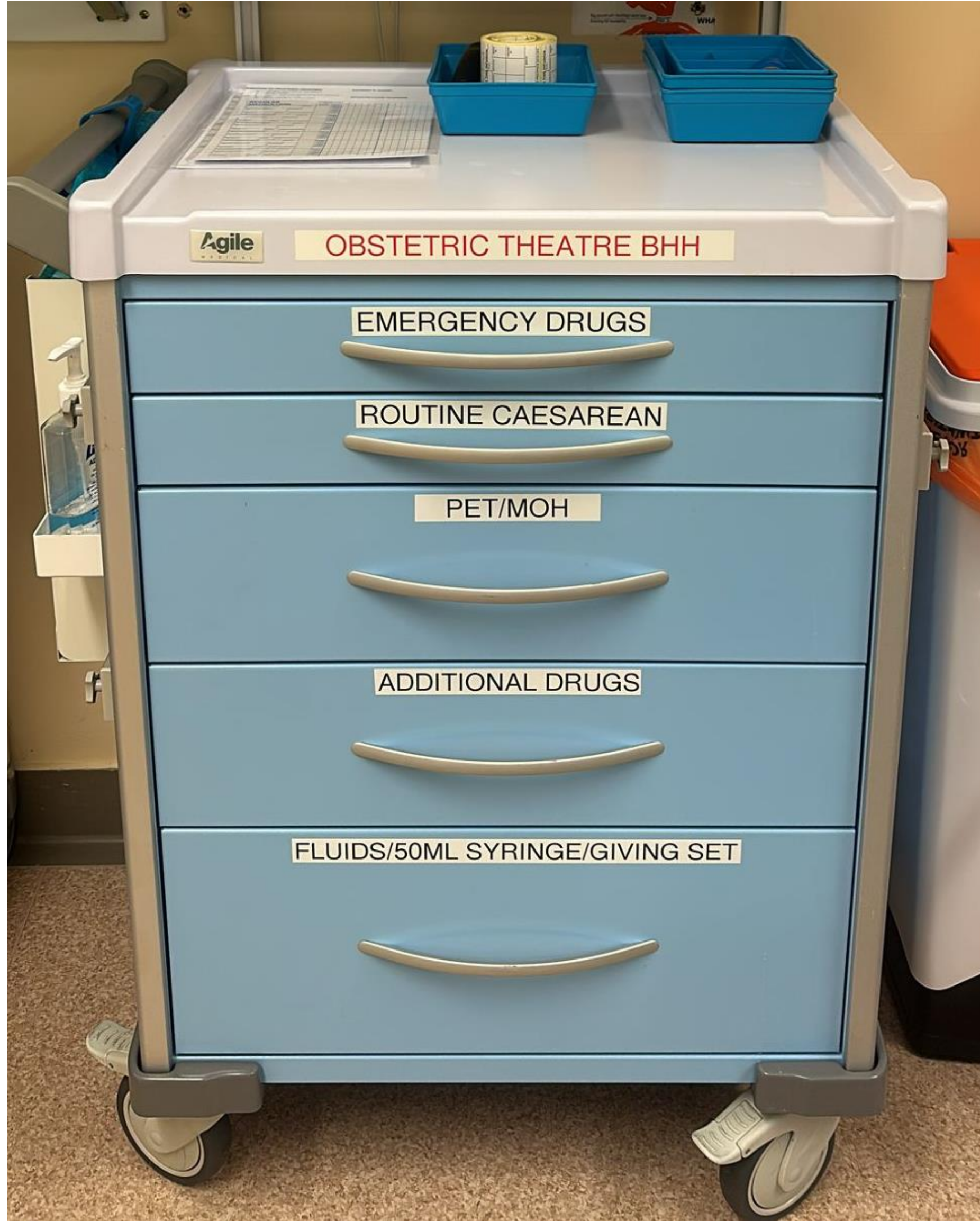
Major Obstetric Haemorrhage and Pre-Eclampsia

Drawer 4:

Additional Drugs (analgesics, antibiotics)

Drawer 5:

Intravenous fluids, 0.9% Saline for Drug Dilution, lines and 50ml syringes



Plan:

1. Present to department at quarterly governance meeting to highlight changes.
2. Reaudit in 3 months to get further feedback and improvement to the layout.
3. Aim to have the trolleys comply with ACSA standards.

References

1. Kelly, F.E., Frerk, C., Bailey, T.M. et al. Implementing Human Factors in Anaesthesia: Guidance for Clinicians, Department and Hospitals. Anaesthesia. 2023; 78 (4): 458-478.
2. Bailey, C.R., Radhakrishna, S., Asana?, K. et al. Ergonomics in the Anaesthetic Workplace. Anaesthesia. 2021; 76 (12): 1635-1647.

Before



Drawer 1

After



Drawer 2



Drawer 3



Drawer 4



Drawer 5

