

How are maternity units escalating care during postpartum haemorrhage?

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Introduction

Effective multidisciplinary team (MDT) working is required during postpartum haemorrhage (PPH), with escalation of care needed to support time-critical decision making and interventions.

Clear triggers should be agreed for MDT escalation, including when to contact the obstetric anaesthetist. Despite defined thresholds for escalation in RCOG PPH guidelines, UK enquiries have highlighted the need for improved MDT escalation during PPH.^{1,2}

Aim

To describe baseline MDT escalation of PPH care in maternity units enrolled in the OBS UK trial, before implementation of the OBS UK care bundle.

Method

Baseline data describing escalation in PPH was collected using two different methods from the maternity units across England, Scotland and Northern Ireland participating in the NIHR-funded OBS UK trial (REC 23/NW/0242, ISRCTN 17679951).

1. Survey of practice: *work as described*

A survey of local PPH guidelines and protocols was submitted by all 36 units at the start of the trial prior to implementing the OBS UK care bundle. The survey included specific questions regarding escalation to senior midwifery, obstetrics and anaesthetic teams.

Descriptive statistics were used to examine baseline escalation protocols.

2. Audit of practice: *work as done*

A baseline audit of practice of 10 cases of >1L PPH was completed by all maternity units prior to implementing the OBS UK care bundle. Data was available for 12/36 units who had begun implementation prior to November 2024.

Analysis involved univariate statistics (counts, percentages) for MDT involvement by PPH volume. Box-and-whisker plots were produced using Microsoft Excel. Pearson’s chi² tests examined escalation by PPH volume.

Results

1. Survey of practice – *work as described*

35/36 (97%) maternity units provided information related to local escalation protocols and/or guidelines. The percentage of maternity units that reported a protocol and/or guideline for escalation to MDT members is shown in Figure 1.

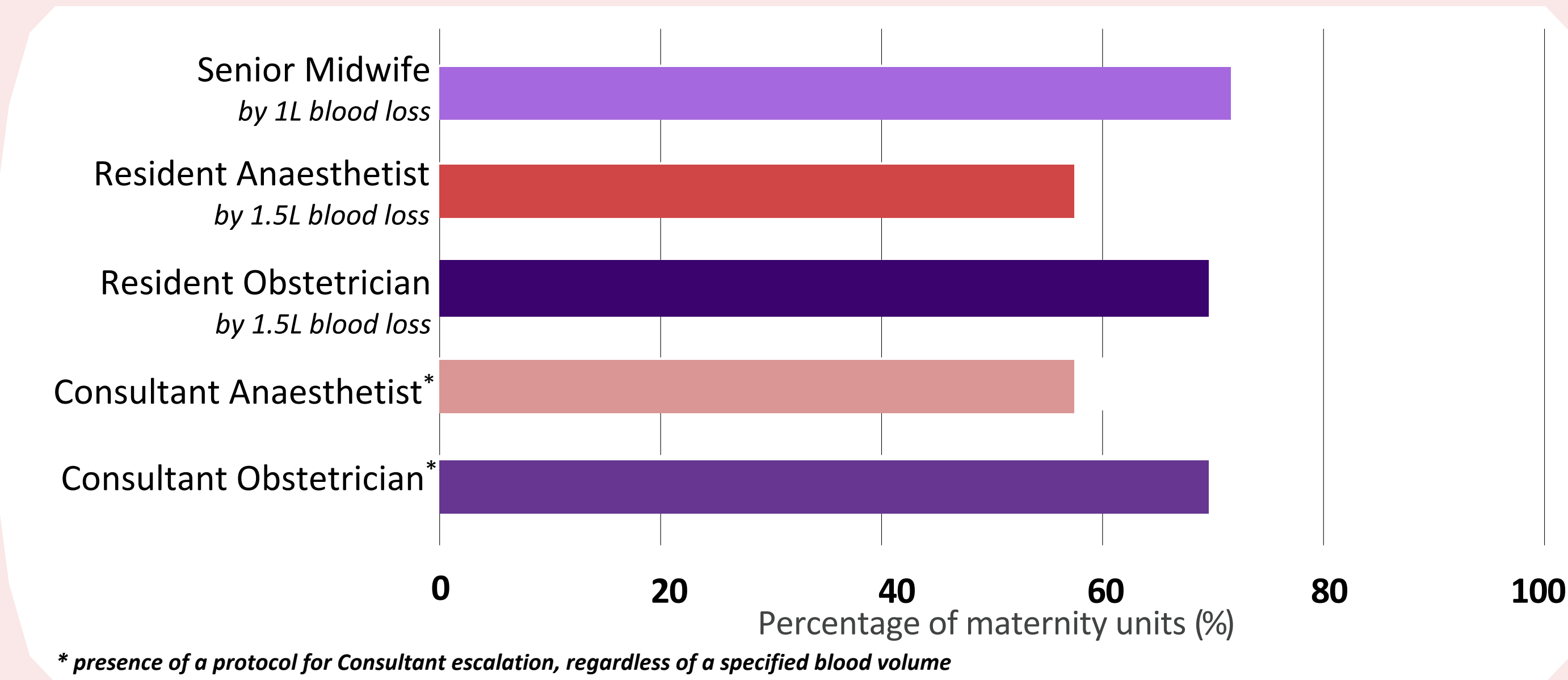


Figure 1. Percentage of maternity units with protocols for escalation by PPH volume

2. Audit of practice – *work as done*

Data for 120 cases of PPH was evaluated. MDT escalation is illustrated in Figure 2.

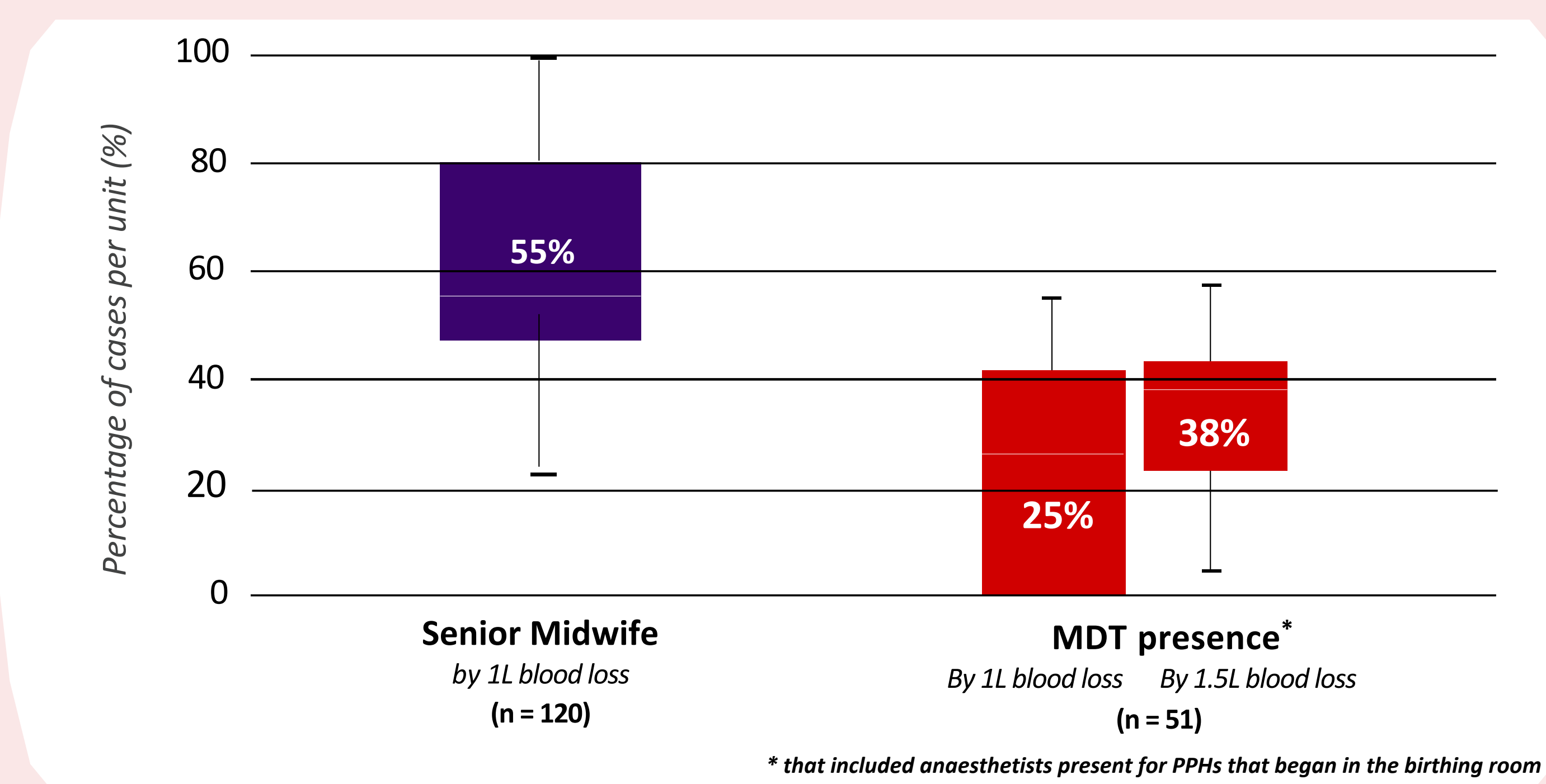


Figure 2. Percentage of cases in which MDT escalation occurred. The Median %s shown.

In the nine cases of 2.5L PPH, consultant involvement was significantly greater for obstetricians (62%) than anaesthetists (30%) (p=0.045).

Discussion

Combining survey and audit data allows evaluation of work as described (in local guidelines and protocols) and work as done (in audits of actual local practice) regarding MDT escalation during PPH.

✓ Heterogeneity in MDT escalation was observed in both the survey and audit of practice. This was most notable for anaesthetic escalation.

✓ A focus of the audits was MDT presence in PPH starting in a birthing room, due to the MDT already being present in PPHs starting in the operating room.

✓ **Resident Anaesthetist Escalation**
57% of units specified escalation to the resident anaesthetist by 1.5L blood loss in their protocol and/or guidelines, yet in the audit this was observed in only 40% of PPH cases in which bleeding started in the birthing room.

✓ **Consultant Anaesthetist Escalation**
57% of units had a protocol for escalation to the Consultant Anaesthetist, yet in the audit this was seen in only 30% of >2.5L PPH. This was significantly less than observed escalation to the consultant obstetrician.

Conclusion

✓ **UK national reports repeatedly show deficiencies in escalation contributing to adverse maternal and neonatal outcomes, with the need to improve escalation practices across all tiers of the maternity MDT.**

✓ **This research highlights that anaesthetic escalation in PPH is an area requiring particular focus. More specific national guidance needs to be coupled with actual changes in practice to achieve MDT presence and improve patient care.**

References

1. Knight M, Bunch K, Tuffnell D, et al. Saving Lives, Improving Mothers' Care Maternal, Newborn and Infant Clinical Outcome Review Programme, 2018. [Available at: <https://www.npeu.ox.ac.uk/assets/downloads/mbrrace-uk/reports/MBRRACE-UK%20Maternal%20Report%202018%20-%20Web%20Version.pdf>]
2. Royal College of Obstetricians and Gynaecologists. Prevention and Management of Postpartum Haemorrhage (Green-top Guideline No. 52). London: RCOG; 2017. [Available at: <https://obgyn.onlinelibrary.wiley.com/doi/epdf/10.1111/1471-0528.14178>]