

Healthcare resource use for the management of postpartum haemorrhage in France, Italy, the Netherlands, and the UK

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Introduction

- Every day, nearly 200 women around the world die from bleeding complications after childbirth, also known as postpartum haemorrhage (PPH)¹.
- Rates of PPH are increasing in many developed countries, driven by increasing rates of uterine atony²⁻⁵, the cause of between 58% and 90% of PPH cases⁶⁻⁸.
- Management of PPH is associated with substantial healthcare resource use.
- The objective of this study was to quantify resource use in the event of a PPH following vaginal birth in-hospital in France, Italy, the Netherlands, and the UK.

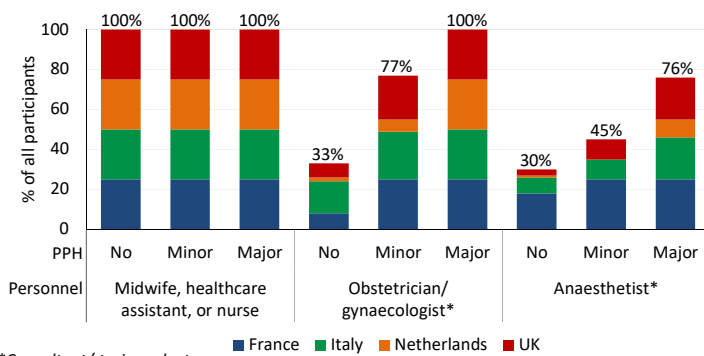
Methods

1. In-depth interviews with midwives from France, Italy, the Netherlands, and the UK (2 per country) were conducted to establish how 'minor' PPH (blood loss 500-1,000 ml) and 'major' PPH (>1,000 ml) are managed vs. normal births (no PPH).
2. Based on the interviews, a web-survey of 76 questions was developed and reviewed by an obstetrician from each country. The survey was completed by 25 midwives per country (n = 100) between March and May 2019.
3. Results were validated at a consensus meeting of obstetricians and midwives (n = 6).

Healthcare personnel

- 97% of participants agreed the midwife is the primary carer during normal births.
- More types of personnel are involved, including obstetricians/ gynaecologists and anaesthetists, with the occurrence and severity of PPH (Figure 1).

Figure 1: Involvement of healthcare personnel in the management of PPH

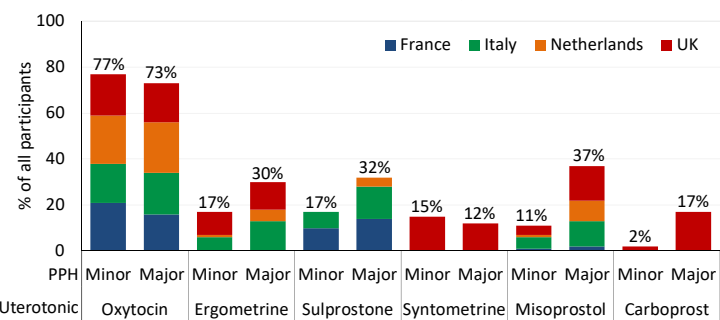


Consensus meeting: advisors agreed with the healthcare personnel involved, and the trend for more types of personnel to be involved with the occurrence and/or increased severity of PPH.

Medical interventions

- Use of additional uterotonics for management of minor and major PPH was reported by 84% and 92% of participants, respectively.
- Oxytocin was the most commonly used additional uterotonic in all countries. Variation in use of other uterotonics was observed between countries (Figure 2).

Figure 2: Additional uterotonics used for the management of PPH



- The use of medical interventions such as urinary catheters, cannula/ IV fluids, and blood transfusions increases with the occurrence and severity of PPH.

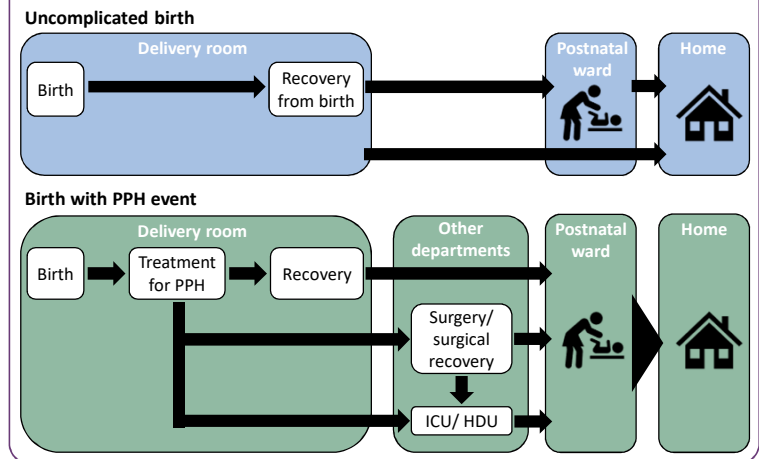
Consensus meeting: advisors agreed that oxytocin would be the first choice additional uterotonic, and agreed with the country variation.

Results

Time in hospital

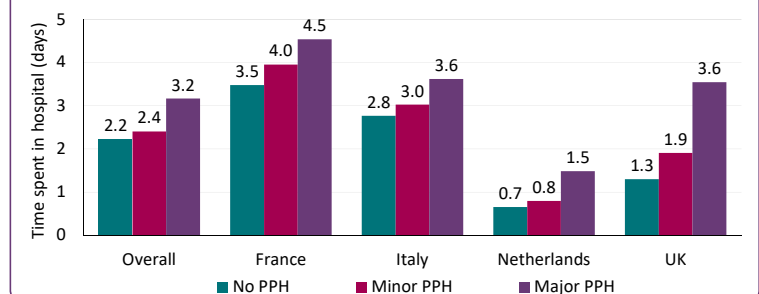
- Participants were asked how long women would spend in each hospital department shown in Figure 3.

Figure 3: Pathways for uncomplicated birth and management of PPH



- Survey results were used to calculate the overall time spent in hospital, based on:
 - Time spent in delivery room, surgical recovery, ICU, HDU, and postnatal ward.
 - Proportion of women who spend time in each department.
- Overall, women spend longer recovering in hospital following major PPH compared to minor PPH and no PPH (Figure 4).
- There is considerable variation in time spent in hospital between countries (Figure 4).

Figure 4: Overall time spent in hospital following uncomplicated birth, minor PPH, and major PPH



Consensus meeting: advisors agreed women spend approximately 1 day longer in hospital following major PPH versus no PPH. There is variation in time spent in each department between countries, which is also dependent on services available in individual hospitals.

Conclusion

- The survey results highlight an increase in healthcare resource use with PPH occurrence and severity. Resource increase is related to more types of healthcare personnel, use of additional uterotonics, and an overall longer hospital stay.
- Women spend less time in hospital in the Netherlands compared to France, Italy, and the UK. However, women in the Netherlands would receive more care at home.
- Overall, the panel of experts at the consensus meeting agreed with the results.
- As uterine atony is increasing in many countries, prevention with effective uterotonics is key to reducing costs associated with the management of PPH.

References

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Abbreviations: HDU, high dependency unit; ICU, intensive care unit; IV, intravenous; PPH, postpartum haemorrhage.

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