



# POSTPARTUM HAEMORRHAGE

## MDT DEVELOPMENT OF A STRUCTURED THEATRE WHITEBOARD TO IMPROVE MANAGEMENT

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### INTRODUCTION

- Postpartum haemorrhage (PPH) continues to contribute significantly to maternal morbidity and mortality (1).
- Our unit introduced a paper PPH management checklist based on the original protocol designed by the Obstetric Bleeding Strategy Cymru programme (2).
- We had 98 cases of a PPH (>1500ml) between June - September 2023, but only 7% had a completed paper checklist.
- The checklist was more likely to be completed for vaginal births (73%) than for caesarean sections (11%).

Our aim was to develop a whiteboard to be displayed in the maternity theatres to improve how we manage a PPH in theatre.

### METHODS

- The sections of the paper checklist related to operative management of PPH were copied onto a blank whiteboard.
- Input was obtained from obstetric anaesthetists, theatre staff at two separate hospital sites and finally candidates at a MDT simulation session.
- Cycles of feedback and editing ensured the whiteboard worked for all key stakeholders.

Important patient details clearly displayed for all members of the team

Real time blood loss monitoring enabling a proactive management approach

| PATIENT DETAILS |  |
|-----------------|--|
| Weight (kg)     |  |
| Starting Hb     |  |
| Allergies       |  |

| BLOOD LOSS |                     |                     |
|------------|---------------------|---------------------|
| TIME       | SWABS/SPONGES (mls) | RUNNING TOTAL (mls) |
| From room  | -                   |                     |
|            |                     |                     |
|            |                     |                     |
|            |                     |                     |
|            |                     |                     |
|            |                     |                     |
|            |                     |                     |
|            |                     |                     |
|            |                     |                     |

LIQUOR VOLUME:                      SUCTION TOTAL = .....

ACDA VOLUME:                      FINAL BLOOD LOSS = .....

#### CONSIDER ACTIVATING MOH AT 1.5L BLOOD LOSS

TIME MOH ACTIVATED:

TIME BLOOD PRODUCTS ARRIVED:

TIME BLOOD PRODUCTS NEED TO BE RETURNED:

| DRUGS                                                          |                                                       |      |
|----------------------------------------------------------------|-------------------------------------------------------|------|
| DRUG                                                           | DOSE                                                  | Time |
| Oxytocin                                                       | 5 units IV bolus (2nd dose) - Slowly                  |      |
| Ergometrine<br><b>** Caution with hypertension **</b>          | 500 micrograms IM                                     |      |
| Carboprost/Hemabate<br><b>** Caution with asthma **</b>        | See table separate table below                        |      |
| Tranexamic Acid                                                | 1g IV                                                 |      |
| Tranexamic Acid                                                | 1g IV (If bleeding ongoing 30 minutes after 1st dose) |      |
| Misoprostol                                                    | 600 micrograms PR                                     |      |
| PLEASE CROSS OUT ANY DRUGS NOT TO BE GIVEN FOR MEDICAL REASONS |                                                       |      |

#### AT 1.5L BLOOD LOSS CONSIDER:

FULL SET OF BLOODS + VBG +/- TEG

REPEAT DOSE OF IV ANTIBIOTICS

IV CALCIUM (10ML 10% CALCIUM GLUCONATE)

DO YOU NEED TO CALL ANYONE ELSE?

| TIME                                  | DOSE              | TIME |
|---------------------------------------|-------------------|------|
|                                       | 250 micrograms IM |      |
|                                       | 250 micrograms IM |      |
| Carboprost (Hemabate)                 | 250 micrograms IM |      |
|                                       | 250 micrograms IM |      |
|                                       | 250 micrograms IM |      |
| Repeat up to 8 times every 15 minutes | 250 micrograms IM |      |
|                                       | 250 micrograms IM |      |
|                                       | 250 micrograms IM |      |

Prompts to aid the management of a PPH, particularly for junior members of the team

Clear record of all drugs administered during the case, as well as encouraging early discussions about drugs to be avoided.

### RESULTS

- Feedback from the obstetric anaesthetic consultant body included the ability to document timings of activation of MOH and the arrival of blood products.
- Discussions with the theatre team focused on the layout and size of the blood loss section, as well as the importance of real-time blood loss monitoring.
- When the whiteboard was trialled during a simulation session, feedback concentrated on the location of the whiteboard and the importance of having a designated scribe to complete the board.

We expect the whiteboard to improve communication in rapidly evolving emergency situations and improve patient outcomes.

### DISCUSSION

- Collaborating with the wider MDT has been essential to enable the successful development of this project, in particular it was important to explain the rational behind this change to practice and address any concerns.
- This positive innovation will allow all members of the theatre team to play an active role in the management of a PPH.
- We aim to re-audit PPH management after installation of whiteboard and staff education.

#### REFERENCES

1. Knight M, Bunch K, Felker A, Patel R, Kotnis R, Kenyon S, Kurinczuk JJ on behalf of MBRRACE-UK. Saving Lives, Improving Mothers' Care Core Report - Lessons learned to inform maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2019-21. Oxford: National Perinatal Epidemiology Unit, University of Oxford 2023.
2. Bell SF, Kitchen T, John M, et al Designing and implementing an all Wales postpartum haemorrhage quality improvement project: OBS Cymru (the Obstetric Bleeding Strategy for Wales) BMJ Open Quality 2020;9:e000854.



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