1. Definition
- 1500 ml blood loss, or more
- Acute drop in Hb > 4g/dl
- Acute need of > 4 unit blood transfusion

2. Management In The Event Of Severe Obstetric Haemorrhage

**CALL FOR HELP** – **Summon Help** - via emergency Buzzer, instruct first in attendance to call 2222 and request ‘Emergency Obstetric Team’ to attend Room ‘X’ on CDS/Ward.

The following team should be assembled:
- Senior Midwife for Labour Ward
- Midwives – allocate to document events on PPH Proforma (Appendix 2)
- Maternity Care Assistance – act as runners
- Obstetric Registrar
- Obstetric SHO
- Obstetric Anaesthetic Registrar
- Maternity ODP
- Porter – transport blood samples/obtain emergency bloods from other areas if required – ext 52000 (out-of-hours), Bleep 0462 (Office Hours)
- Theatres – ext 52254 on standby
- Neonatal Emergency Team – call 2222 – if appropriate
- Alert blood transfusion laboratory
- Alert Consultant Haematologist on call
- Alert Obstetric Consultant Anaesthetist
- Alert Consultant Obstetrician on call – if deemed appropriate contact via Switchboard

**Initial Resuscitation** – **Basic ABC resuscitation**

**IV ACCESS**
- Insert 1st large cannula (Grey 16G or Orange 14G)
- Take blood for
  - Crossmatch 4 units, in the first instance – further units can easily be dispatched by electronic issue
  - Clotting
  - Full blood count
  - Fibrinogen
  - Biochemistry
- Ensure bottles are labelled as per NPSA guidelines and transport samples in person to the lab technicians.
- Set up IV infusion of crystalloid
• Insert 2nd large cannula

**Place of management NB:** It is advisable to transfer all patients to theatre for management of obstetric haemorrhage as theatres are well equipped with blood warmers, etc. Any internal procedure, i.e. insertion of Rusch or Bakri balloon (postpartum) MUST be performed in theatre.

**Emergency blood bank no. – 52828 or Bleep 0871**
Use no. to inform staff of the nature of the emergency and to ask them to contact consultant haematologist via switchboard bleep

**Access to blood**
2 units of emergency O Rh neg blood are available in the CDS blood fridge. Further blood must be obtained via blood bank. When available it will be placed in the blood fridge outside blood bank on level 6. Porters should be requested to transport blood to appropriate area. If there is likely to be a delay in the availability of porters other staff members may be utilised as appropriate, i.e. HCAs, MCAs, theatre staff. In this instance, the **access code** for all the blood fridges is 1111.

Portering arrangements
Office hours  Maternity porter, bleep 0462
Out-of-hours  via hospital portering services, ext 52000

Directions to Blood Bank are shown in appendix 1.

In the event of a massive haemorrhage, state clearly to Blood Bank:

“**I have a potential or actual massive haemorrhage**”.

It is useful to ask them to repeat information back to you to ensure adequate communication.

**Fluids**
1000ml Hartmann’s through a blood giving set, through a blood warmer with rapid infuser – THROUGH BOTH LINES – whilst awaiting blood (consider O neg or type-specific blood).

**Inform Blood Bank immediately if O Rh D negative blood is used so that it can be replaced.**

Plasma expanders i.e. gelofusine may be used

• For every 4 units of transfused blood, plan to give 4 units of FFP and 1 unit of platelets - liaise with haematology

**Please refer to ‘Management of Massive Haemorrhage’ guideline contained within Hospital Transfusion Manual.**

**3. Disseminated Intravascular Coagulation (DIC)**
If DIC is clinically suspected repeat FBC and clotting studies, to include fibrinogen level, and call the on-call haematologist for advice

Measure FBC, clotting screen and electrolytes after every 6 units
Consider arterial gas measurement to assess acid/base status (will affect cardiovascular and clotting function directly)
4. Cell Salvage
Consider the use of red cell salvage, if clinically applicable – earlier rather than later. See Hospital Transfusion Manual.

5. Management of Delivery
Viable fetus – consider emergency Caesarean section performed by a senior member of the obstetric staff.
Non-viable fetus – aim for rapid delivery through ARM with Syntocinon / misoprostol.
Epidural may be considered if clotting is normal.

6. Continuing Care
- Continuous "level 1" critical care is needed (transfer to ICU will be needed in the presence of respiratory failure, anuria, coagulopathy and hypothermia)
- Liase with multidisciplinary colleagues
- Maternal observations:
  - Pulse and BP every 5 min
  - Resps and temp every 15 min
  - Monitor capillary refill times
  - Strict fluid balance chart
  - Catheterise to obtain accurate urine output measurement with an hourly urometer.
  - Give facial oxygen at 8 litres/min. Monitor $O_2$ saturation continuously via pulse oximetry. Maintain $O_2$ saturation at 94% or above.
  - Use MOEWS chart
    This may be reviewed by the lead clinician and changed according to recovery and stability of patient.

7. Interventional radiology
Arrangements are to be discussed with radiology department. Management plan must be according to individualised patient need.

At this current time there is no 24 hour 7 day a week cover. In the event that this treatment option is considered contact the on-call consultant radiologist via switchboard. The consultant obstetrician, consultant anaesthetist and consultant radiologist will make a decision about where treatment will take place.

If possible, and the women can be stabilised, it is preferable that treatment will take place in the radiology department – X-Ray West (Level 6). Safe transfer of the women will be the primary responsibility of the anaesthetist. If transfer is not possible, the radiology team may come to Theatre 18 or Maternity 1 theatre where appropriate treatments may be given.

Following radiology treatment the woman will be transferred to a High Dependency Care setting for 24 hours. It will be the responsibility of the Labour Ward Coordinator to ensure that the woman is visited on the HDU/ITU by midwives for postnatal support and advice.

8. The management and treatment of women refusing blood and blood products
There must be a clearly documented plan of management for women who refuse blood and blood products in the patient records.

- Please refer to Blood Transfusion Manual - section 20
In addition, if caesarean section is necessary it should be carried out with a consultant obstetrician present – this should not delay commencement of procedure.

9. Record keeping

It is expected that every episode of care be recorded clearly, in chronological order and as contemporaneously as possible by all healthcare professionals as per Hospital Trust Policy. This is in keeping with standards set by professional colleges, i.e. NMC and RCOG. All entries must have the date and time together with signature and printed name.

Record Keeping must include use of the Obstetric Haemorrhage Proforma (Appendix 2)

Appendix 1

Directions to Level 6 Blood Bank Fridge
- From maternity (Zone D – orange sign), take stairs to level 6.
- Follow corridor (passing Terence Lewis building on your right) and keep following until you enter Zone B – pink sign which is straight ahead of you (you will pass through Zone C – green sign and Zone A – blue sign)
- Follow this corridor to the end (where Combined Laboratory situated and turn left.
- Tall, white blood bank fridge is situated on the next right, opposite Nuclear Medicine.
Appendix 2

**OBSTETRIC HAEMORRHAGE PROFORMA**

Date……………………Time…………………………
Person completing form……………………………
Designation …………………………………………
Signature…………………………………………

<table>
<thead>
<tr>
<th>Time of call out:</th>
<th>Emergency No Called: 2222 (Internal)</th>
<th>Massive Transfusion Protocol initiated at:</th>
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<tbody>
<tr>
<td>Actioned by:</td>
<td>999 (Community)</td>
<td>X Match Units Ordered at:</td>
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**STAFF PRESENT AT DELIVERY:**

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<th>NAME</th>
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**ADDITIONAL STAFF ATTENDING:**

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**MANAGEMENT OF:**

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<thead>
<tr>
<th>NAME</th>
<th>TIME</th>
<th>UTERUS + GENITAL TRACT</th>
<th>NAME</th>
<th>TIME</th>
<th>DETAILS</th>
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**AIRWAY + BREATHING**

Lay Flat
Administer O₂

Uterine Massage

**Circulation**

2x cannulas (16g/14g)

Foley catheter inserted+urometer

…………….mls drained

Bloods: FBC, U&E’s, X-Match, G & S, Clotting

Vaginal examination

Clots Yes/No
Tears Yes/No

**MANAGEMENT OF:**

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<tr>
<th>NAME</th>
<th>TIME</th>
<th>UTERUS + GENITAL TRACT</th>
<th>NAME</th>
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<tr>
<td>Drugs</td>
<td>Bimanual Compression</td>
<td>Perineal Repair</td>
<td>Vaginal pack</td>
<td>Theatre transfer</td>
<td>Discussed with woman + partner</td>
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<tr>
<td>Syntometrine IM or Syntocinon IV/IM</td>
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<tr>
<td>Ergometrine</td>
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<tr>
<td>Misoprostol</td>
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<tr>
<td>Syntocinon infusion</td>
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<td>Pulse</td>
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<td>Total EBL</td>
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Haematologist Contacted? Yes/No  Time:  

Fluid Infusion Document Commenced? Yes/No  Time:
Monitoring and Audit

Auditable standards:
- Evidence of communication between professional teams
- Urgent access to blood – request to availability times, portering arrangements
- Evidence of described management plan for women with an obstetric haemorrhage, including use of fluid balance chart
- Evidence of documented management plan for women who decline blood and blood products

Please refer to audit tool, location: ‘Maternity on cl2-file11’, Guidelines

Reports to:
Clinical Effectiveness Committee – responsible for action plan and implementation of recommendations from audit

Frequency of audit:
Continuous

Responsible person:
Obstetrician

Training requirements

Audit of training needs compliance – please refer to TNA policy

Training needs analysis:
Please refer to ‘Training Needs Analysis’ guideline together with training attendance database for all staff

Cross references

Antenatal Guideline 31 - Maternity Hand Held Notes, Hospital Records and Record Keeping
Antenatal guideline 44 – Guideline development within Maternity Services
Postnatal Guideline 9 - Postpartum Haemorrhage (PPH)

Hospital Transfusion Manual - Derriford Hospital

References


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Adrian Copplestone (Consultant Haematologist)

Work Address
Maternity Unit, Derriford Hospital, Plymouth, Devon, PL6 8DH

Version
6

Changes
- Maternal observations, fibrinogen test
- Recombinant activated factor VII removed
- Bakri Ballon

Date Ratified
May 14

Valid Until Date
May 17