Postpartum Haemorrhage
4-Stage Approach: Practical Guide

Healthcare Improvement Scotland

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This document was developed in collaboration with our colleagues in OBS Cymru.

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Introduction and background

Welcome to this practical guide to using the 4-stage approach to postpartum haemorrhage (PPH). The risk of obstetric haemorrhage is present in every pregnancy. Early identification of abnormal blood loss creates the potential to intervene and prevent major blood loss.

Early intervention requires:

1. recognition of risk factors leading to heightened surveillance
2. appropriate preparation
3. a standardised approach to accurately determine cumulative blood loss, and
4. recognition of clinical findings suggestive of, or indicating, hypovolaemia.

To have the best chance of preventing heavy bleeding progressing to a massive haemorrhage, which carries the risk of more devastating sequelae, all four areas need to be integrated into the care of the woman who is giving birth.

What is the PPH 4-stage approach?

The MBRRACE-UK Confidential Enquiry into Maternal Deaths and Morbidity in 2016[1] placed emphasis on the importance of basic clinical skills and prompt recognition of severity of haemorrhage, with communication and teamwork being an essential component in the management of PPH. Data in Scotland gathered between 2013 and 2017 identified variation not just in the management of PPH but also in risk assessment, early recognition of deterioration and escalation, and management by the multidisciplinary team (MDT).

With this in mind, the 4-stage tool was developed by the Maternity and Children Quality Improvement Collaborative (MCQIC), a key component of the Scottish Patient Safety Programme (SPSP), in collaboration with colleagues from OBS Cymru, the Obstetric Bleeding Strategy for Wales (http://www.1000livesplus.wales.nhs.uk/obs-cymru). The tool encompasses the recommendations from the MBRRACE-UK report, as it is designed to facilitate an MDT approach to recognising, responding to and managing PPH.

How to use the guide

This practical guide uses visual examples of a paper version of the tool in practice.

Appendix 1 is included as a resource you may wish to use in clinical practice, and a list of abbreviations at the end of the guide helps to explain some of the terminology.

For more information about MCQIC and their work, please visit: http://ihub.scot/spsp/maternity-children-quality-improvement-collaborative-mcqic/

Where do I start?

Prevention of PPH starts with recognition of risk and preparation (Stage 0). Although more than half of women who haemorrhage due to uterine atony have no known risk factors, identification of associated risk factors during the antenatal and intrapartum periods can improve readiness to respond for those with known risks. For women with abnormal placentation, an MDT approach to care is vital.

Stage 0

All pregnant women should have an admission assessment of PPH risk that is based on previous pregnancies and antenatal history. An admission assessment should be completed for all women admitted in spontaneous labour, admission for induction and augmentation of labour and elective lower segment caesarean section (LSCS). If any of the 11 risks are present, tick or mark an X next to the corresponding risk.

Antenatal *'Increased risk' if any of the following is present:*	***Select if applicable***
Anaemia or bleeding disorder (Hb <9.0, PLT <80)	
BMI <18 or >35 or booking weight <55kg	
Five or more previous vaginal births	
Previous uterine surgery	
Previous atonic postpartum haemorrhage ≥1000ml	X
Pre-eclampsia	
Multiple pregnancy/estimated fetal weight >4.5kg	
Uterine fibroids	
Abnormal placental implantation (i.e. praevia) *Consider cell salvage/MDT involvement*	
Polyhydramnios	
Known abruption or antepartum haemorrhage	

Perinatal factors

The risk of PPH can change as labour progresses. Continuous assessment during labour and delivery will assess for the presence of any of the six risks listed below. Vigilance in the immediate postnatal period is essential if any perinatal risk factors are identified. Place a tick or an X in the box to highlight the risk(s). During shift handover or communication to the MDT, Stage 0 should be communicated using the Situation, Background, Assessment, Recommendation (SBAR) format.

Perinatal *'Increased risk' if any of the following is present:*	
Suspicion of chorioamnionitis/sepsis	
Pharmacologically augmented labour	X
Prolonged first-stage established labour (>12 hours)	
Prolonged second stage of labour	
Instrumental delivery/perineal trauma/emergency caesarean	
Retained placenta	

Treat

Plan the active third stage of labour in line with the unit's protocol. If two or more increased risk factors are present, consider the use of additional uterotonics. Refer to local policy for further guidance. Early intravenous (IV) access should be considered and documented, including the time of insertion.

Treat *If woman is at increased risk:*		*Time plan documented*
Plan active third stage in accordance with risk and unit protocol *if increased risk factors are present, additional uterotonics should be considered*		09:00
Consider early IV access *Circle which applies* (Yes / No / NA)	09:15 *(time inserted)*	

Act

Document measured blood loss (MBL) ≤500ml. All other loss will be documented according to stage. Appendix 1 provides guidance on a quantitative approach to MBL. Check the blood bank. Can blood be issued on electronic release or is group and save/x-match required?

Act *Document blood loss for all deliveries*	*Time complete*
Measure blood loss *NB Pool births require estimation*	

Check group and save, electronic release or x-match according to blood transfusion service

Completion of Stage 0

Time of birth and when the third stage is complete should be completed for all deliveries irrespective of blood loss. Total MBL is documented here only if it is ≤500ml.

Time of birth: _____:_____ ***Time third stage complete:*** _____:_____ ***Total measured blood loss:*** _____ml

Completed by: _____ ***Date:*** _____ ***Time:*** ___:___ ***Location:*** _____

Before moving on to Stages 1-3, it is important to be familiar with the tool's action logs and additional clinical notes and comments section, and the Rule of 30.

Action logs

The action logs on pages 6 and 7 of the tool are designed to document the administration of all uterotonics, IV fluids and blood products, and for documenting blood results and MBL. The purpose of each action log is for teams to look at care given in one documented area, in a couple of pages only, which will facilitate quick decisions on the next steps of care.

Uterotonics and tranexamic acid

Document the time that drugs are administered. Blank rows are available to document any additional drugs given.

Uterotonics/tranexamic acid *Document time given*

Drug	Dose	Time	Additional Drug	Dose	Time
Oxytocin	5 units IV	10:00	Tranexamic acid	1g IV	11:00
Ergometrine *(caution with PET)*	500µg IV or IM	10:03	Tranexamic acid	1g IV	
Oxytocin infusion	40IU over 4 hours IV	10:45	Ergometrine	500ug	10:20
Oxytocin	10IU IM (if no IV access)				
Syntometrine *(caution with PET)*	1ml IM (if no IV access)				
Misoprostol	800 or 1000µg PR/SL	10:40			

Carboprost (Hemabate) 250µg IM up to 8 doses (caution in asthma) *Document time of each dose*

1	11:00	5	
2	11:15	6	
3		7	
4		8	

Notes:

Crystalloids and other fluids given

The second part of the action log is a record of all IV fluids. Similar to uterotonics, this is a one-stop section for fluids, with the opportunity to add a cumulative total in the last column. Documentation in one section will enhance communication between the team in terms of total input of IV fluids. Note the blank time at oxytocin infusion. This should be completed once infusion is complete.

Crystalloid and other fluids given *NB Boards can document single units or cumulative total*

Type	Amount	Warmed	Time	Time complete	Cumulative Total
Hartmanns	500ml	Y / N	11:00	11:08	500ml
Hartmanns	500ml	Y / N	11:10		
Normal Saline with 40 IU Oxytocin	500ml	Y / N	10:45	11:20	1000ml
Gelofusion	500ml	Y / N	11:00	11:10	1500ml
		Y / N			
		Y / N			
		Y / N			
		Y / N			
		Y / N			

Blood products

For similar reasons cited on the previous page, blood and blood products given should be documented in allocated columns.

All blood and blood products given O negative, group specific, x-match, FFP, cryoprecipitate, platelets, fibrinogen				**Measured blood loss (MBL)**		
Type	***Volume (ml)***	***Time started***	***Time complete***	***Time MBL measured***	***MBL (ml)***	***Cumulative total***
RPC	332	11:45	11:52	10:15	372	372
RPC	278	12:00	12:10	10:30	300	672
FFP	301	12:12	12:25	10:45	245	917
				11:00	400	1371
				11:15	250	1621
				11:30	356	1977
				11:45	400	2377
				12:00	300	2677
				12:13	100	2777
Total blood product administered						

Measured blood loss

Accurate measurement of blood loss is essential for:

- recognising potentially life-threatening haemorrhage, and
- managing blood product replacement[2].

Although multiple methods for estimating blood loss are available, most are inaccurate, for example visual estimation. This practice has consistently been shown to significantly underestimate large-volume blood loss by 33–50% when compared with direct measurement. Similarly, small measures of blood loss are frequently overestimated, resulting in overtreatment. It is recommended practice for MBL to be documented every 15 minutes in Stages 1–3 until the bleeding is arrested. Delay in recognition of large blood loss is a common finding in cases of maternal morbidity and mortality from haemorrhage. A policy of waiting to quantify blood loss only after the excessive loss is appreciated does not address this problem.

Cell salvage

Where applicable, clinicians can document the use of cell salvage.

Cell salvage – use and volume gained *Circle all that apply*		
Used from start of surgery	Commenced during surgery	No / NA / insufficient staffing
Volume reinfused:		

Blood test results

Document the results in the box. If required, any other blood test results can be documented in the right-hand box, but this is optional.

Blood test results					
Time	*Hb (state lab or HemoCue)*	*Lactate*	*Gases*	*Fibrinogen*	*Other*
09:00	13.1 – lab	NA	NA	NA	
10:30	9.7 - haemacue	1mmol/L	NA	400mg/dl	CRP - 197

Additional clinical notes and comments

Available for clinicians to record any care not covered by the tool.

Time	*Additional clinical notes and comments:*	*Signature*

Rule of 30

It is important to know booking or 36-week maternal weight to determine the percentage of circulating blood volume lost. Figure 1 represents some examples of weight and when 15%, 30% and 40% volume loss occurs. A 750ml blood loss may be well tolerated by a woman weighing 70kg with minimal signs and symptoms, but for a woman weighing 50kg this is 15% of her circulating blood volume lost. Figure 2 represents signs, symptoms and Maternity Early Warning Score (MEWS) for each percentage of circulating blood volume lost.

IMPROVING ESTIMATES OF % BLOOD LOSS

NB Small women have small blood volumes

Weight (kg)	Total blood volume (mls)*	15% loss mls	30% loss mls	40% loss mls
50	5000	750	1500	2000
55	5500	825	1650	2200
60	6000	900	1800	2400
65	6500	975	1950	2600
70	7000	1050	2100	2800

Figure 1: Circulating blood volume and % blood loss

% blood loss guide			
% blood loss	**15%**	**30%: Follow 'Rule of 30'**	**40%**
Signs and symptoms	Possible anxiety, dizziness, palpitations	Unwell, anxious, weakness, faint, clammy, restless, sweating	Confused, drowsy, unconscious, clammy skin, air hunger, pallor, cold, peripheral cyanosis
MEWS			
Blood pressure	**Normal**	**30mmHg drop in systolic**	**Hypotensive**
Respiratory rate	**Normal**	**>20 or 30% increase**	**>30**
Pulse	**Normal**	**>100 or 30% increase**	**>120**
Urine output	**Normal**	**<30ml/h**	**<15ml/h**

Figure 2: Signs, symptoms and MEWS: % blood loss guide

Stage 1

Move through treatment simultaneously: mobilise help, act and treat accordingly and initiate unit protocols for PPH. Stage 1 represents blood loss of 500–999ml without clinical shock or ≤15% blood loss. This stage is not applicable for LSCS.

Mobilise help

The midwife in charge will be the first person to contact for help. The midwife in the room and midwife in charge will clearly communicate to each other the next steps and who is assigned as scribe. If further assistance is requested, their name, status and grade will be documented.

Mobilise help *Document time of arrival*		
Name	***Status/Grade***	***Time***
Mary Doe	*Midwife in charge*	10:00
Request further assistance		
Joe Bloggs	ST6	10:10
Scribe identified: Mary Bloggs,	Midwife	10:03

Possible cause

This visual aide is designed as prompt or reminder to think of potential cause of the bleeding. This essentially follows the 4T approach: Tone (atony), Trauma (vaginal tears), Tissue (retained placenta), and Thrombin (coagulopathy). No documentation is required in this box. You may wish to circle causes that apply.

Think of possible causes *Circle all that apply*			
Atony	Vaginal tears	Retained placenta	Coagulopathy

Act

MEWS will be used for all women, with observations recorded every 15 minutes until the bleeding stops. Consider IV access if blood loss continues, especially if progression to Stage 2 is anticipated. The same principles apply for ranitidine. The actions are in order of the clinical actions that are required at this stage, rather than chronological preference of treatment. These can be performed simultaneously with the midwife in charge allocating tasks to the team. Document the time when each of the care indicators started or NA (not applicable) if not required.

Act *Document time started or administered*	***Time***
Keep mother warm and reassure	10:10
Measure and record blood loss *(record on action log)*	10:15
Monitor on MEWS *(record every 15 minutes)*	10:10
IV access *(at least 16 gauge)*	09:15
Consider ranitidine	10:20

Treat

Treat the identified cause of haemorrhage. Document the time performed or leave blank or document NA if not required. At any time during treatment, bimanual compression should be discussed with the team and considered as a possible treatment option if bleeding persists.

Treat *Document time started. For atony, document any uterotonics on action log*			***Time***
Uterine massage	10:03	Inspect genital tract – suture any tears	NA
Empty bladder (400ml ml)	10:15	Placenta: check delivered and complete	
Consider bimanual compression			

Completion of Stage 1

The tool can stop at Stage 1 once the team are reassured that bleeding has stopped. The PPH post-event checklist should be completed for Stages 1–3 and is explained later in this document. If MBL is >1000ml **OR** there is clinical concern, progress to Stage 2.

Total measured blood loss: _____*ml*

Completed by: _____ ***Date:*** _____ ***Time:*** ___:___ ***Location:*** _____

Once bleeding has stopped, ensure that post-event checklist is complete

Stage 2

This stage applies to all blood loss ≥1000–1499ml **OR** clinical concern **OR** <30% blood loss.

Restart here after Stage 0 for all LSCS. More information about the Rule of 30 and guide to percentage blood loss can be found on page 10 of the guide.

Stage 2 is focused on sequentially advancing through medications and procedures, mobilising help, blood bank support and keeping ahead with volume and blood product. Here, the woman is beginning to decompensate and senior obstetric and anaesthetic involvement is vital. This is where theatre should be considered. In cases of atony with continued bleeding after second-line uterotonics, an intrauterine balloon needs to be considered, and other causes need to be excluded, rather than going straight to third and fourth-line uterotonics.

Mobilise help

Additional help will be required during this stage because of the moderate amount of blood loss. If members of the team are present from Stage 1, tick or place an X in the time box. There is no need to duplicate names. It is expected that an obstetrician(s) and anaesthetist will be involved in care. Document the name of the scribe.

Mobilise help *Document time of arrival*

Name	***Status/Grade***	***Time***	***Name***	***Status/Grade***	***Time***
Stage 1 already present		X	Mary Bones	Midwife	10:50
	Midwife in charge				
Dr Betty Bones	*Obstetrician*	10:50	Dr John Doe	***ST6***	10:50
Dr Peter Bones	*Anaesthetist*	10:50	Bridget Bones	***MCA***	10:50
Scribe identified:					

Act

Document the time started for all or NA if not relevant. Similar to Stage 1, the central banner has clinical indications of PPH. When the cause is known, circle or place an X next to all that are relevant.

Act	*Time care started*		*Time care started*
Airway, breathing, circulation	10:50	Commence 15L/min oxygen	11:00
Place flat	10:50	Consider second IV access and fluid bolus *caution with PET*	11:03
Keep warm and reassure	10:50	Give up to 2 Litres warmed crystalloid via rapid infuser	11:00
Monitor on MEWS at least every 10 minutes	11:00	Transfuse blood as soon as possible if clinically required	NA
		Time noted >1000ml	11:00

Blood tests

Tick, circle or place an X, whatever is easiest electronically, next to the tests that are ordered, with a time entered in the last column. Write how many units of x-matched bloods have been requested.

Take bloods Lab tests: *FBC Coagulation Lactate U&E x-match (_____units)* Point-of-care tests: *Haemacue Gases (circle all that apply, document results on action log)*	

.

Treat

To emphasise, treatment during this stage should be timely, with act and treat carried out simultaneously. Document the time of each treatment in the right-hand box. Leave blank or document NA if not required. Document in the action log any uterotonics given and additional clinical notes as required.

Treat *Document time commenced; NA if not required*			
Empty bladder (consider Foley)	NA	Give uterotonics/tranexamic acid	NA
Ensure placenta complete	NA	Bimanual compression	NA
Inspect genital tract	10:08	EUA uterus/consider balloon tamponade	NA
Repair genital tract	10:10	Consider other surgical interventions	

Completion of Stage 2

Once the bleeding has stabilised and final total MBL is between 1000–1500ml, the tool is complete and can be signed as below. The post-event checklist will be completed by a member of the obstetric or anaesthetic team. It is recommended practice for a management plan to be documented in the clinical notes and clearly communicated to the MDT using structured communication tools such as SBAR. Increase postnatal surveillance for any woman with a Stage 2 haemorrhage.

Total measured blood loss: _____*ml* ***Ensure post-event checklist is complete***

Completed by: _____ ***Date:*** _____ ***Time:*** ___:___ ***Location:*** _____

Stage 3

Stage 3 focuses on all blood loss >1500ml **OR** ≥30% blood loss **OR** ongoing clinical concern. This stage is critical as the woman may be in extremis. Teamwork, communication and collaboration between all members of the MDT are critical at this stage. Effective communication of major obstetric haemorrhage (MOH) is critical between the theatre team and laboratory staff. The key messages are as follows:

- **Do not delay other interventions** while waiting for a response to medication(s).
- **Do not wait** for laboratory values to initiate transfusions:
    1. transfuse based on clinical signs and patient response.
    2. transfuse aggressively with a high ratio of fresh frozen plasma (FFP) to packed red blood cells (PRBC)[2].
- **Communicate and document**:
    1. Verbally acknowledge the actions you will take and the orders received.
    2. Provide ongoing updates about the patient's status with other departments.
    3. Record care on the action log.

Mobilise help

Tick or place an X if staff from Stages 1 and 2 are already present. If any staff have left, this can be documented in the additional clinical notes. Document the name of the scribe. The column on the left-hand box is prepopulated, as these members of the MDT are required to attend.

Mobilise help *Document when in attendance or Stage 1 or 2 if already present*					
Name	***Status/Grade***	***Time***	***Name***	***Status/Grade***	***Time***
Stage 1 or 2 already present		X			
	Midwife in charge	X	Betty Bloggs	LW Co Coordinator	11:10
	Obstetrician	X	Mary Marple	FY2	10:30
	Anaesthetist	X			
	Theatre staff				
Scribe identified: Jane Doe, Midwife		11:10			
Consider transfer to theatre		Arrived: 11:10	**Inform anaesthetic or obstetric consultant**		
Consider activating major obstetric haemorrhage protocol		11:13	**Consider interventional radiology**		

Plan further treatment

Consultant presence is essential in severe PPH cases. Document the time contacted. In the case of continuing or worsening haemorrhage, it is critical to consider timely transfer to theatre and activation of the local MOH protocol.

Act

Act and treat are simultaneous and are not in chronological order of preference. Enter the time that each element started. Leave blank or document NA if not required for each relevant element of clinical care.

During severe haemorrhage, the primary goals are to provide adequate and early blood product replacement and to either prevent or correct disseminated intravascular coagulation (DIC). Delays in recognising and treating haemorrhage frequently lead to inadequate blood product administration. After the first several units of PRBCs and in the face of continuing or worsening haemorrhage, aggressive transfusion therapy becomes critical.

Act *Document time commenced; NA if not required*			**Time**
		Consider cell savage	NA
Review measured blood loss and ongoing measurement *Document on action log*	11:15	Order blood and coagulation products as per MOH protocol	11:30
Monitor patient *5-minute observations by anaesthetist*	11:08	Repeat blood tests as per MOH protocol *Do you need to discuss the case with a haematologist?*	10:40
Consider IV antibiotics for every 1500ml	11.20	**Time noted 1500ml**	11:15

Treat

Adhere to local MOH protocol for severe haemorrhage. A crucial step is reviewing the care given, such as ongoing resuscitation, uterotonics and IV fluids administered, while continually updating the action log and communicating this to the team. Document the time this occurred in the appropriate box. The focus during this stage is surgical interventions. Document the time each started in each box or NA if not required.

Treat *as per major obstetric haemorrhage protocol; document time each treatment initiated*			
Review ongoing resuscitation	11:00	Give/repeat tranexamic acid	11:10
Review uterotonics *Document on action log*	11:10	Document all fluids given on action log	
First-line surgical measures *Document time commenced*		**Consider advanced surgical techniques**	
EUA		Interventional radiology	NA
Manual removal of placenta	11:16	Stepwise uterine devascularisation	
Cervical tear repair		Hysterectomy	NA
Intrauterine balloon tamponade	NA	Other:	
B-Lynch suture			
Resuturing caesarean/uterine incision			

For all women who have a Stage 3 PPH, senior members of the MDT should consider transfer of care to HDU or ICU once the bleeding has stabilised. When transfer to the recovery area is complete, Stage 3 can be signed as complete with final MBL documented here.

Transfer to HDU/ICU care once bleeding has stopped. ***Total measured blood loss:*** _____*ml*

Ensure post-event checklist is complete and management plan is written in notes

Completed by: _____ ***Date:*** _____ ***Time:*** ___:___ ***Location:*** _____

Post-event checklist

This should be completed after the event by a member of the obstetric or anaesthetic team. The checklist adopts a 'read and do', 'challenge/response' and 'aide-memoire' approach to completing essential elements of PPH care. This checklist reduces reliance on memory, and thus reduces errors of omission while contributing to team communication and increasing situational awareness amongst clinicians. Each question should be answered by circling or, for electronic forms, deleting responses that are not applicable.

Post-event monitoring requirements

Level of post-event care required (circle applicable)	*Level 1*	*Level 2 (ACCU)*	*Level 3 (ITU)*
Post-op bloods (FBC/Coag/U&E) to be taken at	*Time:* 14:00	*Plan to transfuse if Hb <* 7.5g/dl	
PV loss monitoring required?	*Yes / No*	*Frequency of monitoring* _____	
Urine output monitoring required?	*Yes / No*	*Frequency of monitoring* _____	

Post-event rebleed risk assessment

Oxytocin infusion running or required?	*Yes / No*	*Time expected to finish: __/__*
Vaginal pack in situ?	*Yes / No*	*Planned removal time: ___/___*
Intrauterine balloon (e.g. Bakri or Rusch in situ?)	*Yes / No*	*Planned removal time: ___/___*
Can an NSAID be given?	*Yes / No / Not yet*	

Thromboprophylaxis plan:	*LMWH*	*Yes / No*	*Time of first dose: ___/___*
	TEDS	*Yes / No*	

Appendix 1: Approach to quantitative measurement of blood loss

This is not a prescriptive guide to blood loss but an example that could be incorporated into practice.

Identification of dry weights is essential to establish an accurate measurement of blood loss. Figures A1 and A2 can be used as pocket cards or posters. Figure A1 can be adapted for local use. Formally measure blood loss as per local methods, for example using scales or graduated measurement containers.

Remember to add any blood loss from placental dishes. Visual estimates will be required for blood loss on the floor.

Dry weights (adapt for local use)

Item	Dry Weight
Inco Pads	
Small swabs (10cm × 10cm)	
Medium swabs (30cm × 30cm)	
Large swabs (45cm × 45cm)	
Sanitary pads	
Pillows	
Bed sheets	
Drapes	

Figure A1: Establishing dry weight

Procedure

- **Weigh all bloody items in grams**
- **Subtract dry weights in grams**
- **Remaining weight in grams = ml blood loss**
  - **1 gram = 1ml**

For example 400g = 400ml blood loss

Figure A2: Procedure for weighing blood loss

'Rule of 30'

30% of blood volume is probably lost if:

- **Fall of systolic BP by 30**
- **Heart rate rises by 30**
- **Respiratory rate rises >30**
- **Hb or Haematocrit drops by 30%**
- **Urine output <30ml/h**

Moderate to severe shock is likely

Figure A3: Rule of 30

List of abbreviations

4T	Tissue, Tone, Thrombin and Trauma
ACCU	adult critical care unit
Coag	coagulation
DIC	disseminated intravascular coagulation
FBC	full blood count
FFP	fresh frozen plasma
FY	foundation year
Hb	haemoglobin
HDU	high-dependency unit
ICU	intensive care unit
ITU	intensive therapy unit
IV	intravenous
LMWH	low-molecular-weight heparin
LSCS	lower (uterine) segment caesarean section
MBL	measured blood loss
MBRRACE-UK	Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK.
MDT	multidisciplinary team
MEWS	maternity early warning score
MOH	major obstetric haemorrhage
NA	not applicable
NSAID	non-steroidal anti-inflammatory drug
PLT	platelets
PRBC	packed red blood cells
PV	per vagina
RPC	red packed cells
SBAR	Situation, Assessment, Background, Recommendation
ST	specialty trainee
TEDS	thromboembolic disease stockings
U&E	urea and electrolytes

References

1. MBRRACE-UK. Saving Lives, Improving Mothers' Care(2014) Lessons learned to inform future maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2009-2012. [Cited June 2016) Available via URL: https://www.npeu.ox.ac.uk/downloads/files/mbrrace-uk/reports/Saving%20Lives%20Improving%20Mothers%20Care%20report%202014%20Full.pdf

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This document was developed in collaboration with our colleagues in OBS Cymru.

http://ihub.scot/spsp/maternity-children-quality-improvement-collaborative-mcqic/

http://www.1000livesplus.wales.nhs.uk/obs-cymru