

Key notes on: Obstetric haemorrhage

- Obstetric haemorrhage is a leading cause of maternal mortality and morbidity – in Australia it is the leading cause of ICU admission
- The lack of close post-birth monitoring and the failure to act on signs and symptoms that a woman is seriously unwell, remain important contributors to maternal death from haemorrhage
- Active management of the third stage reduces the likelihood of postpartum haemorrhage and is recommended for all women
- Estimated blood loss (EBL) is virtually always under-estimated when bleeding is severe – consider the clinical picture – treat the woman, rather than base treatment on EBL – **try to quantify blood loss**
- Assess and act on signs/symptoms that deviate from normal – i.e. routinely assess the fundus (on presentation to ED, following birth, including post-caesarean); persistent, unrelieved pain requires further investigation; vital sign changes are a late sign
- Request senior medical involvement early
- Plan and practice massive obstetric haemorrhage drills – as a team – may not be able to predict who will have a massive haemorrhage, but you can plan for it
- Be aware of how many and where O-neg blood units are stored at your hospital
- Crystalloid as good as anything whilst waiting for blood
- All maternity hospitals should have a massive transfusion protocol – with maternity adaptations and suitable to the context of the service
 - Consider early trigger of massive transfusion protocol; keep fibrinogen > 2g/L; avoid permissive hypotension if uterus in-situ
- Need to avoid hypothermia, acidosis, hypoperfusion, hypoxaemia – if you want the uterus to respond to uterotonics and the clotting system to optimally function
- Remember the woman's partner – often 'put in a waiting room and forgotten'
- Remember 'normal postpartum care' – e.g. anti-D if woman is a negative blood group with a positive baby
- Offer debriefing and discussion about what happened after the woman has recovered (not while she is still sick)

Key resources/recommended reading

National Blood Authority Patient Blood Management Guideline: Module 5 – Obstetrics and Maternity. 2015. National Blood Authority. Canberra. Available at: <http://www.blood.gov.au/pbm-guidelines>

National Blood Authority Patient Blood Management Guideline: Module 1 – Critical Bleeding/Massive Transfusion. 2011. National Blood Authority. Canberra. Available at: <http://www.blood.gov.au/pbm-guidelines>

3centres Collaboration. Antepartum Haemorrhage (APH) Including Placenta Praevia, Abruption, Vasa Praevia And Incidental Bleeding: Clinical Practice Guidelines 2010. Available at: www.3centres.com.au

South Australian Perinatal Practice Guidelines. Balloon tamponade and uterine packing for major PPH. SA Health 2012. <http://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/clinical+resources/clinical+topics/perinatal+practice+guidelines/perinatal+practice+guidelines>

NSW Health. Maternity - Prevention, Early Recognition & Management of Postpartum Haemorrhage (PPH). Sydney: Department of Health, NSW, 2010. http://www0.health.nsw.gov.au/policies/groups/ps_maternity.html

Blood Safe elearning website. <https://bloodsafelearning.org.au/our-courses/>

Youtube video on insertion of a Bakri balloon: <https://www.youtube.com/watch?v=IRNxLFB8Vqw>

California Maternal Quality Care Collaborative. Obstetric Haemorrhage Toolkit 2.0. <https://www.cmqcc.org/resources-tool-kits/toolkits>

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Thompson JF, Roberts CL, Ellwood DA. Emotional and physical health outcomes after significant primary post-partum haemorrhage (PPH): A multicentre cohort study. *Australian and New Zealand Journal of Obstetrics and Gynaecology*. 2011;51:365-71.

Snowdon C, Elbourne D, Forsey M, Alfirevic Z. Information-hungry and disempowered: A qualitative study of women and their partners' experiences of severe postpartum haemorrhage. *Midwifery*. 2012;28:791-799.

Bates L. Uterotonics and tocolytics. *O&G Magazine*. 2014;16(2) Winter:22-24.

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Mallaiah S, Barclay P, Harrod I, Chevannes C, Bhalla A. Introduction of an algorithm for ROTEM-guided fibrinogen concentrate administration in major obstetric haemorrhage. *Anaesthesia*. 2015;70(2):166-75.

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