Maternity Education Program

Postpartum Haemorrhage

Participant Resource Kit

CSDS
Clinical Skills Development Service

Queensland Government

Maternity Education Program

The resources developed for Maternity Education Program (MEP) are designed for use in any Queensland Health facility that care for patients/ women who are pregnant/ birthing or postnatal.

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Postpartum Haemorrhage – Participant Resource Kit

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Who is this resource kit for?

This resource kit provides healthcare workers with knowledge and skills on assessing and managing a postpartum haemorrhage.

Target audience

Midwifery and medical staff providing maternity care

Duration

45 mins - case study simulation and debrief (additional 15 minutes for set up)

Group size

Suited to small groups (6 – 8)

Learning objectives

By the end of the session the learner should be able to:

- Recognise and manage a post-partum haemorrhage.
- Identify the need for and call for help early.
- Manage the PPH using the Queensland Clinical Guideline PPH.
- Recognise and respond to the clinical deteriorating patient.

Supporting documents

1. Participant Resource Kit
2. 2D pictures to demonstrate PPH management
3. PowerPoint (QCG) to assist prior to session
4. List of further readings
5. PPH Flow diagram
6. PPH drug table
7. PPH simulation

Overview

Primary postpartum haemorrhage (PPH) is the most common form of obstetric haemorrhage and is a leading cause of maternal morbidity and mortality. Obstetric haemorrhage which includes antepartum haemorrhage is still responsible for maternal deaths in Australia.

There is no single definition but primary PPH is an excessive bleeding in the first 24 hours post birth and secondary PPH after 24 hours and up to six (6) weeks postpartum. In an emergency, diagnosis most commonly occurs through estimation of blood loss and the changes in the haemodynamic state, but quick response and treatment are vital for a good outcome.

Obstetric emergency is any clinical situation involving a maternity patient where immediate medical/midwifery assistance is required.

Further Readings

Queensland Clinical Guideline (QCG) on primary postpartum haemorrhage

Statewide guideline on primary postpartum haemorrhage. The information contained in this guidelines has been prepared using a multidisciplinary approach with reference to the best information and evidence available at the time of preparation.

https://www.health.qld.gov.au/__data/assets/pdf_file/0015/140136/g-pph.pdf

Queensland Clinical Guideline on Primary postpartum haemorrhage Clinical Guideline Presentation v5.0

Presentation developed by QCG as an implementation tool and should be used in conjunction with the QCG on PPH.

https://www.health.qld.gov.au/__data/assets/pdf_file/0017/141074/ed-pph.pdf

Queensland Clinical Guideline on Oxytocin infusion: updated protocol 2024

Presentation developed by QCG as an implementation tool and should be used in conjunction with the QCG on Induction of labour and PPH.

https://www.health.qld.gov.au/__data/assets/pdf_file/0024/645333/ed-oxytocin-protocol.pdf

Royal College of Obstetricians & Gynaecologists, Postpartum haemorrhage, prevention and management (Green-top guideline no 52)

This guideline provides information about the prevention and management of postpartum haemorrhage (PPH), primarily for clinicians working in obstetric-led units in the UK; recommendations may be less appropriate for other settings where facilities, resources and routine practices differ.

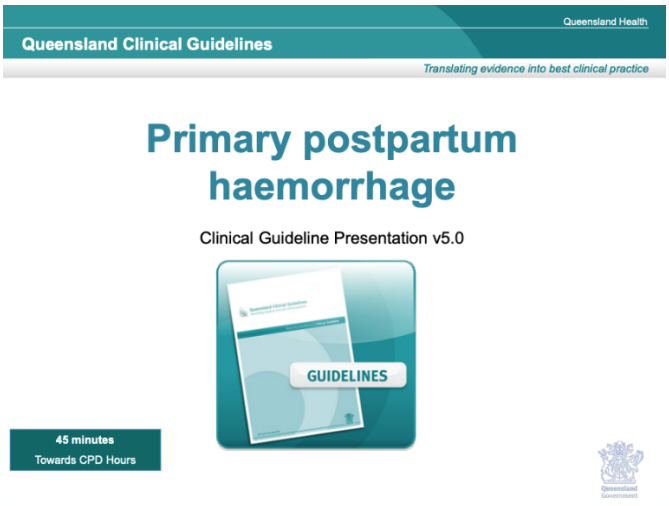
https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg52/

Obstetric Emergency

Postpartum Haemorrhage

Initial response to primary postpartum haemorrhage (PPH) https://www.health.qld.gov.au/__data/assets/pdf_file/0021/144363/f-pph-response.pdf
Massive haemorrhage protocol (MHP) https://www.health.qld.gov.au/__data/assets/pdf_file/0012/142320/f-pph-mhp.pdf

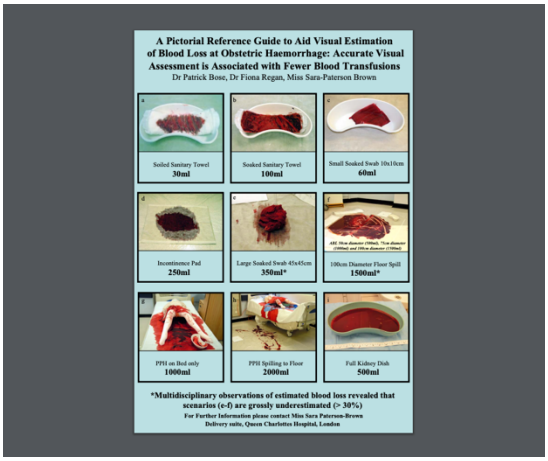
Postpartum Haemorrhage PowerPoint Presentation



Scan me on your phone

https://www.health.qld.gov.au/__data/assets/pdf_file/0017/141074/ed-pph.pdf

Blood estimation pictures



Scan me on your phone

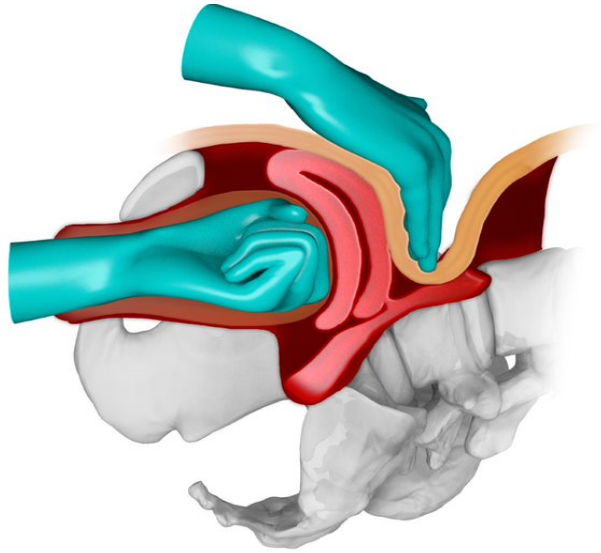
https://crana.org.au/uploads/pdfs/Guide_to_Aid_Visual_Estimation_of_Blood_Loss_at_Obstetric_Haemorrhage.pdf

Drugs and Blood Products Kit

Drug/ Product	Dose/Route	Reconstitution	Maximum	Comments
Carboprost	250 micrograms IM 	Nil	May repeat after 15 minutes to maximum total dose of 2 mg (8 doses)	Manufacturer does not recommend intramyometrial —use at clinician's discretion Commence cardiac monitoring and oxygen therapy prior to administration Contraindicated in patients with asthma
	500 micrograms intramyometrial	Nil	Unknown/repeat not recommended	
Cryoprecipitate	Dose in response to fibrinogen level One adult standard dose IV is equivalent to10 whole blood or five apheresis units 	Stored frozen Defrost over 30 minutes before administration	Unknown	Derived from whole blood or collected via apheresis Australian Red Cross states one standard adult dose provides 3–4 g of fibrinogen; clinical experience suggests 2–3 g or less
Ergometrine	250 micrograms IV over 1–2 minutes 	Dilute 250 microgram up to 5 mL with 0.9% sodium chloride (50 microgram per mL)	May repeat every 2 – 3 minutes to maximum total dose of 250 micrograms –1 mg	Administer with anti-emetic Contraindicated with retained placenta, pre-eclampsia May cause severe hypertension
	250 micrograms IM	Nil	May repeat after 5 minutes to maximum total dose of 500 micrograms –1 mg	
Fibinogen concentrate	Dose in response to fibrinogen level If fibrinogen level unknown, then 50–70 mg/kg body weight IV at a rate not exceeding 5 mL per minute 	Reconstitute with 50 mL of sterile water Swirl gently to ensure fully dissolved Do not shake vial	Unknown	Dosing based on product information for congenital fibrinogen deficiency Administer via infusion device/pump Dose per vial approximately 1 g 4 g increases fibrinogen by approximately 1 g/L

Misoprostol	800–1000 microgram per rectum (PR) 	Nil	Repeat dose not recommended	Use when oxytocin and ergometrine are not successful Due to slow onset of action, consider early administration Associated with postpartum fever
Oxytocin	5 International units IM	Nil	May repeat after 5 minutes to maximum total dose of 10 International units	Instead of Ergometrine if BP elevated Ensure placenta is expelled
	5 International units IV over 1–2 minutes	Nil		
	5–10 International units per hour IV via infusion pump 	Oxytocin 30 International units in 500 mL crystalloid or 0.9% sodium chloride Infuse at 83–167 mL/hour		
Syntometrine (500 mcg ergometrine 5 IU oxytocin)	1ml IM if Oxytocin only has been given for 3rd stage management 	Nil	X1 Dose	Avoid if allergic to components Do Not use in: hypertension, Pre-eclampsia, heart, liver or renal issues, narrowed or blocked blood vessels, severe infection
Tranexamic Acid	1 gram IV over 10 minutes 	Nil	If bleeding persists after 30 minutes or stops and restarts within 24 hours of the first dose, a second dose may be administered	Rapid administration may cause hypotension, dizziness Use infusion device/pump

Bimanual compression

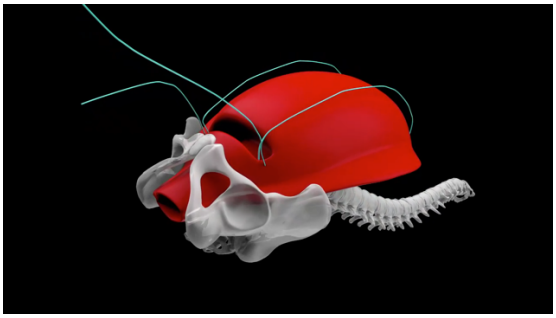


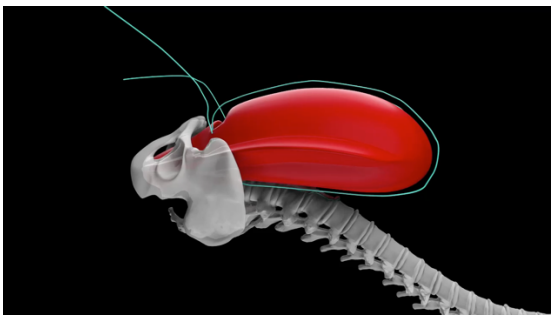
Bimanual compression

The accoucheurs dominant hand enters the vagina, once in place makes a fist, the outside hand presses down on the fundus and compresses the uterus between the external and internal hand.

This procedure needs to be maintained until the woman is in OT and ready for ongoing management.

B-Lynch Suture





Surgical management

The B-Lynch suture acts as a brace suture. The principle is to compress the uterus by pulling drop on the suture pulling it taught to achieve or aid compression. It is simple and effective.

Refer to page 35 QCG Primary Postpartum Haemorrhage

Bakri postpartum balloon

Bakri Postpartum Balloon w/Rapid Instillation Animation Demonstration

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https://www.cookmedical.com/products/wh_sosr_webds/#

Acronyms and abbreviations

Term	Definition
MHP	Massive haemorrhage Protocol
OT	Operating theatre
PPH	Postpartum haemorrhage
RCOG	Royal College of Obstetricians & Gynaecologists

Bibliography

This resource kit has been inspired by the Optimus BONUS project of the Children's Health Queensland's "Simulation Training Optimising Resuscitation for Kids" service. To know more information about STORK and their Optimus project, visit their website.

1. Children's Health Queensland. 2020. Queensland Paediatric Emergency Care Education | CHQ. [online] Available at: ‹https://www.childrens.health.qld.gov.au/research/education/queensland-paediatric-emergency-care-education/› [Accessed 24 July 2020].

2. Queensland Clinical Guidelines Maternity and Neonatal Clinic al Guidelines Postpartum Haemorrhage April 2019 P 8

3. The Royal Australian and New Zealand College of Obstetrics and Gynaecologists Management of Postpartum Haemorrhage (PPH) 2017 P 3

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Please complete this online survey and help make Queensland Maternity Education better.

The survey should take no more than 5 minutes to complete.