



Postpartum haemorrhage: midwife prevention and management

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Our goals today

1. Acknowledge the problem
2. (Re)define PPH
3. Examine the risk factors for, and causes of, PPH
4. Investigate the dilemma
5. Own the midwifery contribution to PPH
6. Rethink management of PPH and strategise for midwifery prevention
7. Stand tall and know midwives aren't solely to blame (maybe not even mostly!)



1.

Acknowledging the problem

PPH ranks third in the most common causes of maternal mortality in South Africa

But there is more to this sad story...



1.

Since \pm 2000 South Africa has had a pretty constant PPH mortality rate of 13,4% of all maternal deaths.

Did you know?
RSA has \pm 25 times higher PPH MMR than the United Kingdom



1.

And, did you know this...?

C/Sections accounted for
26.2% of PPH deaths in SA.

Saving Mothers 2008 – 2010



2.

(Re)defining PPH

Over the course of a pregnancy...

- Maternal blood volume increases by approximately 50% (from 4l to 6l)
- Plasma volume increases more than total RBC volume
- This leads to a fall in the Hb concentration and hematocrit value
- The increase in blood volume fulfils the perfusion demands of the low-resistance uteroplacental unit
- It also provides a reserve for the blood loss that occurs at the birth of the baby



2.

Caregivers consistently underestimate visible blood loss by as much as 50%

- The volume of any clotted blood represents half of the blood volume required to form the clots
- Most women giving birth are healthy and compensate for blood loss very well



2.

Women undergoing C-section generally lose more blood (around 1 000ml) than women having a vaginal delivery.

When birthing in an upright position blood loss may appear more than for dorsal positions, but overall blood loss is often least of all.



2. MEDICAL THIRD STAGE – ACTIVE MANAGEMENT

PPH

1. Oxytocics or analgesics affecting uterine tone

2. Episiotomy

3. Baby's head & shoulders delivered

4. Syntocinon IM

5. Cord clamped, blood trapped in placenta; myometrium can't contract & retract; M-F blood mix

6. Maternal brain receives ambiguous oxytocin signals

7. CCT risk – inversion, snapping, painful, incomplete placenta

8. Early separation for checks; oxytocin inhibited

9. Fundal pressure

2.

PHYSIOLOGY OF EXPECTANT THIRD STAGE

No PPH

1. Natural labour; no induction; pain meds & episiotomy unlikely; no syntocinon before baby/placenta delivered

2. Baby delivered onto abdomen or chest

3. Immediate touch or suckling - continued oxytocin release contracts and retracts

4. Uterine blood vessels efficiently constricted

5. Cord pulsation gradually ceases

6. Classic placenta release cues seen

7. Cord clamped – or not even

2.

Just by the way...

Immediate cord clamping
can cause lower iron stores
for up to the first six months
of a baby's life!



3.

Examining the risks & causes of PPH

Medscape emedicine April 2016

Uterine atony is a failure of the uterine myometrial fibres to contract and retract.

This is the most important cause of PPH and usually occurs immediately following delivery of the baby, up to 4 hours after the delivery.



3.

Significant risk factors & causes

- Failure to progress during second stage
- Failure to deliver the placenta
- Placenta accreta & other abnormalities
- Lacerations
- Instrumental delivery
- Hypertensive disorders
- Induction and augmentation of labour
- Placental distension with blood before delivery



3.

Significant risk factors & causes (contd)

- Multifetal gestation
- Fetal macrosomia
- Polyhydramnios
- Fetal abnormality (eg, severe hydrocephalus)
- Uterine structural abnormality
- Chorioamnionitis
- Magnesium sulphate use
- Previous PPH
- Full bladder
- GA agents like halothane emedicine.medscape.com/article/275038-overview#a4



3.

Latest research shows:

- No evidence that the place of birth makes a difference
- There should be very selective use of operative interventions to minimise PPH
- That episiotomy does not shorten second stage or prevent third degree tears
- 'Hands off the fundus in third stage' is imperative to reduce PPH



4.

Investigating the PPH dilemma

Poor myometrial contraction:

- Can result from myometrial fatigue due to prolonged labour - but beware of diagnosing prolonged labour incorrectly
- Or can be caused by rapid forceful labour, especially if stimulated (induction and/or augmentation) – hardly the midwife's action!
- Retained blood clots/placenta may cause uterine distension and prevent effective contraction – physiological birth is unlikely to yield this result



4.

Failure of complete separation of the placenta occurs in placenta accreta and its variants

This condition is possible whenever the placenta

is implanted over a previous uterine scar, especially if associated with placenta praevia
– C-section is a direct association...



4.

Damage to the genital tract may occur spontaneously or through manipulations used to deliver the baby.

Trauma may occur following very prolonged or vigorous labour, especially with cephalopelvic disproportion, and the uterus has been stimulated with oxytocin or prostaglandins.

Trauma may result secondary to attempts to remove a retained placenta manually or with instrumentation.



4.

Caesarean delivery
results in twice the average blood loss
of vaginal birth.

Incisions in the poorly contractile
lower segment heal well but are more reliant
on suturing, vasospasm, and clotting for
hemostasis.



5.

Owning the midwifery contribution

Midwives aren't blameless...

- Fear factor
- Momducation
- Evidence updates
- Natural VS normal delivery
- Sub-optimal observation
- Fundus fiddling



6.

Rethinking midwifery prevention and management

Recognising PPH

- Any amount of postpartum bleeding that appears more than normal
- Any patient with signs of shock due to haemorrhage



6.

The WHO and PPH

- Offer uterotonics during third stage to all; oxytocin (IM/IV, 10 IU) most recommended (or misoprostol and others)
- Controlled cord traction (CCT) - optional in settings where SBAs are available; contraindicated if no SBA (skilled birth attendant)
- Early cord clamping is generally contraindicated
- No continuous uterine massage when woman had prophylactic oxytocin - may cause maternal discomfort, unlikely reduction of blood loss; staff issues
- Check uterine tone through abdominal palpation in all women
- To reduce blood loss in third stage in C-sections: oxytocin, CCT rather than manual removal



6.

Decreasing PPH risk

- As natural an approach to birth as possible
- With low-risk moms who have not received any uterotonics – or pain medication, preferably – use expectant management of the third stage
- Comfortable but upright position
- Delivery room to be warm, calm, and safe to promote natural hormone flow
- Immediate skin-to-skin
- Encouraging breastfeeding immediately



6.

Decreasing risk

Observe closely for signs of placental detachment

- A sudden but not continuous gush of bleeding
- Renewed uterine contractions
- The desire to push
- A change in uterus size and shape

Observe closely for, and treat, signs of PPH

- Palpate the fundus
- Administer oxytocin
- Call for help
- Observe blood loss accurately
- Monitor Mom's vital signs
- Examine the placenta
- Resuscitate if necessary



7.

The bottom line is that a natural, uncomplicated birth and third stage is unlikely to lead to PPH.

From today on make sure you see PPH in a new light.

Change what you can, but don't accept blame when it is not yours to accept!

Stand tall as a midwife!



*Maternity care,
the Midwife Way*

Thank you very much!

