WHO recommendation on the use of sustained uterine massage in women who have received prophylactic oxytocin for the prevention of postpartum haemorrhage

22 September 2012

Recommendation

Sustained uterine massage is not recommended as an intervention to prevent postpartum haemorrhage in women who have received prophylactic oxytocin.

(Weak recommendation, low-quality evidence)

Publication history

First published: September 2012

Updated: no update planned

Assessed as up-to-date: September 2012

Remarks

- There is a lack of evidence regarding the role of uterine massage for postpartum haemorrhage (PPH) prevention when no uterotonic drugs are used, or if a uterotonic drug other than oxytocin is used.
- Although the GDG acknowledged that one small study reported that sustained uterine massage and clot expulsion were associated with a reduction in the use of additional uterotonics, there is lack of robust evidence supporting other benefits. However, the GDG considered that routine and frequent uterine tone assessment remains a crucial part of immediate postpartum care, particularly for the optimization of early PPH diagnosis.
- Based on the most recent evidence, understanding of the contribution of each component of the active management of the third stage of labour package has evolved. The GDG considered that this package has a primary intervention: the use of an uterotonic. In the context of oxytocin use, CCT may add a small benefit, while uterine massage may add no benefit for the prevention of PPH. Early cord clamping is generally contraindicated.
Background

Postpartum haemorrhage is defined as blood loss of 500ml or more within 24 hours after birth. PPH is the primary cause of nearly one-fifth of all maternal deaths globally. Most of these deaths occur during the first 24 hours after birth. The majority could be prevented through the use of prophylactic uterotonics during the third stage of labour, and by timely and appropriate management.

Massage is thought to stimulate uterine contraction, possibly through stimulation of local prostaglandin release and thus to reduce haemorrhage. However, it is not done routinely after delivery in a systematic way. (1)

Methods

The recommendation was developed using standardized operating procedures in accordance with the process described in the “WHO handbook for guideline development”, based on the GRADE approach. (2,3) Outcomes used for this recommendation were the prioritized outcomes from the WHO recommendations on prevention and treatment of postpartum haemorrhage (2012).(4)

One systematic review provided evidence for this recommendation. (1) Data on relevant outcomes and comparisons were extracted.

WHO convened a Guideline Development Group (GDG) meeting in March 2012. This group of independent experts used the evidence profiles to assess evidence on effects on the pre-specified outcomes. GDG members discussed the balance between desirable and undesirable effects, overall quality of supporting evidence, values and preferences, magnitude of effect, balance of benefits versus disadvantages, resource usage, and feasibility, to formulate the recommendation. Remarks were added to clarify the recommendation, and aid implementation.

Further information on procedures for developing this recommendation are available here.

Recommendation question

For this recommendation, we aimed to answer the following question:

- For all women giving birth (P), does sustained uterine massage (I) compared to standard care (C) improve outcomes (O)?

Evidence Summary

The evidence related to the use of uterine massage for the prevention of PPH consisted of one systematic review of two RCTs (1491 women) investigating the effects of uterine massage after birth, before and/or after delivery of the placenta. (1) The studies were conducted in Egypt and South Africa.

The interventions in these studies compared the use of uterine massage both before and after the delivery of the placenta, as well as sustained uterine massage (1–2 hours) and removal of uterine clots.

- The studies included in the review did not report any maternal deaths.
- Among the critical outcomes reported, there was no difference in uterine blood loss between the group that received uterine massage (irrespective of when the massage was initiated) and the group that did
not. Blood loss was not reported in the group who underwent sustained massage and clot expulsion.

- There was a statistically significant reduction in the use of additional uterotonicics in the group that received sustained massage and the removal of uterine clots (RR 0.20, 95% CI 0.08 to 0.5). It should be noted that the sample size for this group (200 women) was small.

Further information on evidence supporting this recommendation are available [here](#).

Implementation considerations

- The successful introduction of evidence-based policies related to the prevention and management of PPH into national programmes and health care services depends on well-planned and participatory consensus-driven processes of adaptation and implementation. These processes may include the development or revision of national guidelines or protocols based on this recommendation.
- The recommendation should be adapted into locally-appropriate documents and tools that are able to meet the specific needs of each country and health service. Modifications to the recommendation, where necessary, should be justified in an explicit and transparent manner.
- An enabling environment should be created for the use of this recommendation, including changes in the behaviour of health care practitioners to enable the use of evidence-based practices.
- Local professional societies may play important roles in this process and an all-inclusive and participatory process should be encouraged.

Research implications

The GDG identified these research priorities related to this recommendation:

- What are the effects of uterine massage for the prevention of PPH?
- What are the effects of uterine massage to prevent PPH, where oxytocin is not available?
- What are the effects of uterine massage to prevent PPH, where only misoprostol is available?

Related Links

WHO recommendations on prevention and treatment of postpartum haemorrhage (2012) - [full document](#) and [evidence tables](#)

Pregnancy, Childbirth, Postpartum and Newborn Care: A guide for essential practice

Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors (2nd ed)

VIDEO: Active management of third stage of labour

Education material for teachers of midwifery. Managing postpartum haemorrhage.
References


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