WHO recommendation on the use of uterine massage for the treatment of postpartum haemorrhage

01 September 2012

Recommendation

Uterine massage is recommended for the treatment of PPH.

(Strong recommendation, very low-quality evidence)

Publication history

First published: September 2012

Updated: No update planned

Assessed as up-to-date: September 2012

Remarks

- The GDG noted that the use of manoeuvres and other procedures requires training and that maternal discomfort and complications associated with these procedures have been reported.
- Uterine massage as a therapeutic measure is defined as the rubbing of the uterus achieved through the manual massaging of the abdomen. This is typically sustained until the bleeding stops or the uterus contracts. The GDP considered that uterine massage should be started once PPH has been diagnosed.
- The initial rubbing of the uterus and expression of blood clots are not regarded as therapeutic uterine massage.
- When rating this recommendation as ‘strong’, the low cost and safety of uterine massage were taken into account.

Background

Postpartum haemorrhage (PPH) 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.

Uterine massage involves placing a hand on the woman's lower abdomen and stimulating the uterus by repetitive massaging or squeezing movements. 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.

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 (1, 2) Outcomes used for this recommendation were the prioritized outcomes from the WHO recommendations on prevention and treatment of postpartum haemorrhage (2012).(3)

No randomized controlled trials (RTC) were identified of the use of uterine massage for the treatment of PPH. Evidence for this has therefore been extrapolated from one systematic review of two RCTs (1491 women) investigating the effects of uterine massage for the prevention of PPH. (4) 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 women with postpartum haemorrhage, does uterine massage improve outcomes?

Evidence summary

No randomized controlled trials were identified of the use of uterine massage for the treatment of PPH. Evidence for this has therefore been extrapolated from one systematic review of two RCTs set in Egypt and South Africa (1491 women). These investigated the effects of uterine massage after birth, before and/or after delivery of the placenta for the prevention of PPH.

The interventions in these studies compared uterine massage both before and after the delivery of the placenta.

- Among the critical outcomes, no difference was reported in uterine blood loss between the uterine massage group and the non-uterine massage group, irrespective of the timing of the massage.
- There was a statistically significant reduction in the use of additional uterotonic in the group who received uterine massage after placental delivery (RR 0.20; 95% CI 0.08 to 0.5). The sample size of this group was small (200 women).

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.

Related links

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

Managing Complications in Pregnancy and Childbirth: A guide for midwives and doctors

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

Links to the supporting systematic reviews:

Hofmeyr GJ, Abdel-Aleem H, Abdel-Aleem MA. Uterine massage for preventing postpartum haemorrhage. Cochrane Database of Systematic Reviews 2013

Related resources

VIDEO: Active management of third stage of labour

Education material for teachers of midwifery. Managing postpartum haemorrhage.

Research implications

The GDG did not identify any research priorities related to this recommendation.

References


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