WHO recommendation on the use of bimanual uterine compression for the treatment of postpartum haemorrhage

21 September 2012

Recommendation

The use of bimanual uterine compression is recommended as a temporizing measure until appropriate care is available for the treatment of PPH due to uterine atony after vaginal delivery.

(Weak 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.

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.

Bimanual uterine compression is an intervention performed by a skilled birth attendant, where one hand is placed in the vagina and pushed against the body of the uterus, while the other hand compresses the uterine fundus above through the abdominal wall. If a PPH occurs after vaginal birth, and is due to uterine atony, bimanual uterine compression can act as a temporizing measure until definitive treatment is available.
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)

One randomized controlled trial and one case report provided evidence for this recommendation. (4,5) 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 (P), does bimanual uterine compression (I) compared to placebo or no treatment (C) improve outcomes (O)?

Evidence summary

One RCT was identified which examined the use of lower segment uterine compression in addition to standard treatment for the management of PPH (64 women). The technique included the use of both lower segment compression with one hand through the abdominal wall and bimanual lower segment and fundal compression through the abdominal wall.(4) The authors reported a decrease in the amount of blood loss in the group in which manual lower segment compression was used together with conventional management. Only one case report was found describing the bimanual abdominal/intravaginal technique.(5)

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 supporting evidence:


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


Citation: WHO Reproductive Health Library. WHO recommendation on the use of bimanual uterine compression for the treatment of postpartum haemorrhage (September 2012). The WHO Reproductive