

## WHO recommendations for the prevention of postpartum haemorrhage

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**RHL guideline appraisal by Fawole B, Awolude OA, Adeniji AO, Onafowokan O**

### 1. INTRODUCTION

Postpartum haemorrhage (PPH) is the leading cause of maternal mortality worldwide with a prevalence rate of approximately 6%; Africa has the highest prevalence rate of about 10.5% (1). In Africa and Asia, where most maternal deaths occur, PPH accounts for more than 30% of all maternal deaths (2). The proportions of maternal deaths attributable to PPH vary considerably between developed and developing countries, suggesting that deaths from PPH are preventable (2). Interventions to prevent PPH in developing countries are therefore pivotal in the global effort to achieve by 2015 the Millennium Development Goal of reducing maternal mortality ratio by three-quarters (from 1990 levels) (3).

The most common cause of PPH is uterine atony. Active management of the third stage of labour, which is an evidence-based intervention for the prevention of uterine atony, has been promoted in developing countries (4, 5, 6). However, both accurate knowledge about active management of the third stage of labour (7) and its correct use remain low in developing countries (8, 9).

In developing countries, health systems face enormous constraints that hinder the delivery of emergency obstetric care, which is vital for saving the lives of women who develop PPH. Moreover, there is high prevalence of anaemia in women in developing countries, which complicates PPH. Hence, prevention of PPH through greater use of active management of the third stage of labour can be expected to reduce maternal mortality (10). Since approximately 65% of deliveries in developing countries are now supervised by a skilled health-care provider (11), it should be possible to

expand the use of active management of the third stage of labour to prevent PPH. Pragmatic evidence-based interventions are also needed to reduce PPH rates in deliveries not attended by skilled providers. Such guidance to aid clinical practice is not commonly available in developing countries.

In 2007, the World Health Organization developed a set of guidelines for the prevention of PPH (12). The recommendations in this guide are based on the available evidence for various interventions for the different components of active management of the third stage of labour. Moreover, the interventions are evaluated for their effects on priority outcomes, namely reduction of maternal mortality, reduction of maternal morbidity (blood loss of 1 litre or more and use of blood transfusion) and use of additional uterotonics. Important adverse effects of uterotonic drugs, such as manual removal of the placenta, are also considered.

The objective of this appraisal is to evaluate the WHO PPH guidelines with a view to determining the value of the recommendations in reducing PPH in under-resourced settings.

## 2. METHODS

To assess the quality and transparency of the methods used to develop the guidelines, all authors independently applied the Appraisal of Guidelines for Research and Evaluation (AGREE) instrument (13). We obtained a standardized score for each domain of the AGREE instrument by combining the scores for each item in the domain awarded by all authors as described in the AGREE document.

The overall assessment (i.e. would you recommend this guideline for use in practice?) by each author was also compared. In addition, each author evaluated the relevance of the guideline to under-resourced settings based on the following questions:

1. Would the recommendations in the document enable health-care professionals and policy-makers to introduce interventions that would help to reduce the impact of PPH?
2. Do the guidelines include the steps that would be needed at the health system and clinic levels to put the recommendations into practice?
3. Do the guidelines address the different settings in developing countries in which women give birth?
4. Do the guidelines address different types of birth attendant – i.e. skilled and unskilled health-care providers who attend births?
5. Are there any clinical, health system, or policy questions that the guidelines do not address?

Individual assessments were subsequently reviewed by all authors and consensus was reached following extensive discussions.

## 3. RESULTS

The standardized domain scores (out of a maximum of 100), derived following evaluation with the AGREE instrument, were as follows: scope and purpose – 86.1; stakeholder involvement – 50.1; rigour of development – 76.2; clarity and presentation – 79.2, applicability – 44.4; and editorial

independence – 37.5. In deriving these scores, the authors considered certain factors in order to determine the strengths and weaknesses of the guideline in the respective domains. With regard to scope and purpose, the authors collectively agreed that the objectives, the clinical questions considered and the patients who would ultimately benefit from the guidelines had been specifically described. For stakeholder involvement in the preparation of the guidelines, relevant professional groups had been involved and the end-users clearly defined. However, patients' views had not been included, and neither had the guidelines been piloted among end-users. The authors of this appraisal agreed also that rigour of development of the guideline was satisfactory with respect to systematic searching and selection of evidence, clarity of description of the methods used for formulating recommendations and consideration of potential benefits and risks of interventions, external peer review and established procedures for updating the guideline. Clarity and presentation were rated as satisfactory given that the recommendations were clear and unambiguous, different options of management of the condition had been considered and key recommendations were easily identifiable. However, the guidelines were adjudged to be weak with respect to applicability (consideration of barriers and cost implication for implementing the recommendations) and editorial independence (lack of independence from funding body and non-declaration of conflict of interest). The latter judgement was made owing to the lack of a clear statement in the guidelines about declaration of conflict of interest by the group that developed the guidelines.

All authors agreed that the recommendations would enable health-care providers and policy-makers to introduce interventions that will help to reduce the impact of PPH. The recommendations also address dissemination and implementation steps and consider the different settings in developing countries in which women give birth – i.e. facility births and home births. The different types of health-care provider who provide assistance for women at delivery are also covered; the recommendations adopt a broad definition of a "skilled birth attendant" in order to accommodate the variable levels of skills available in developing countries.

Active management of the third stage of labour or use of any of its components by non-skilled health-care providers attending births is not recommended in the guidelines. However, no alternative recommendations for non-skilled providers are made despite the guidelines acknowledging that non-skilled providers are involved in the management of labour in under-resourced settings.

## 4. DISCUSSION

Overall, the WHO PPH guidelines are of high quality and based on the best available evidence. Implementation of the recommendations in the guidelines would help to reduce the impact of PPH.

### 4.1 Scope and coverage of the guidelines

The guidelines reviewed the evidence base for each of the components of active management of the third stage of labour. The process of development of the guidelines took due cognizance of the variable levels of

skills available for assisting women during delivery. Formulation of the recommendations was sufficiently rigorous and based on evaluation of the best evidence available at the time.

#### 4.2 Implementation of the recommendations

A major objective of the guidelines was to clarify which PPH prevention interventions are appropriate for different settings. Moreover, the guiding process of development of the guidelines sought to identify which intervention may be employed by skilled and non-skilled providers. However, all the recommendations in the guidelines are for skilled providers. The only clear reference in the guidelines to non-skilled provider is in the context of cautioning (policy-makers and programme managers) against the use of active management of labour by non-skilled provider. Although the guidelines include uterine massage as a component of active management of the third stage of labour, evidence for this component is not reviewed and no direct recommendation relating to it is made.

#### 4.3 Recommendations for further updates of the guidelines

The guidelines contain suggestions for dissemination and implementation of the recommendations. In our opinion, implementing the recommendations should be easy. Future updates of the guidelines should incorporate evidence relating to non-skilled providers.

#### References

1. Carroli G, Cuesta C, Abalos E, Gulmezoglu AM. Epidemiology of postpartum haemorrhage: a systematic review. *Best Practice & Research Clinical Obstetrics and Gynaecology* 2008;22:999-1012.
2. Khan KS, Wojdyla D, Say L, Gulmezoglu AM, Van Look PFA. WHO analysis of causes of maternal death: a systematic review. *The Lancet* 2006;367:1066-1074.
3. United Nations. Millennium Development Goals. New York: United Nations; 2000. Available at: <http://www.un.org/millenniumgoals>. Accessed December 19, 2009.
4. International Federation of Obstetrics and Gynaecology; International Confederation of Midwives. International joint policy statement. FIGO/ICM global initiative to prevent post-partum hemorrhage. *Journal of Obstetrics and Gynaecology of Canada* 2004;26: 1100-1102.
5. Lalonde A, Daviss BA, Acosta A, Herschderfer K. Postpartum haemorrhage today: ICM/FIGO initiative 2004–2006. *International Journal of Gynecology and Obstetrics* 2006;94:243-253.
6. International Confederation of Midwives; International Federation of Obstetrics and Gynaecology. Prevention and treatment of post-partum haemorrhage. New advances for low resource settings. *International Journal of Gynecology and Obstetrics* 2007;97:160 -163.
7. Oladapo OT, Akinola OI, Fawole AO, Adeyemi AS, Adegbola O, Loto OM, et al. Active management of third stage of labour: evidence versus practice. *Acta Obstetrica et Gynecologica* 2009;88:1252-1260.
8. Stanton C, Armbruster D, Knight R, Ariawan I, Gbangbade S, Getachew A, et al. Use of active management of the third stage of labour in seven developing countries. *Bulletin of the World Health Organization* 2009;87:207-215.
9. Festin MR, Lumbiganon P, Tolosa JE, Finney KA, Ba-Thike K, Chipato T, et al. International survey on variations in practice of the management of third stage of labour. *Bulletin of the World Health Organization* 2003; 81: 286 – 291.

10. Karoshi M, Keith L. Challenges in managing postpartum hemorrhage in resource-poor countries. *Clinical Obstetrics and Gynecology* 2009;52:285-298.
11. WHO. Proportion of births attended by a skilled health worker 2008 updates. Geneva: World Health Organization; 2008.
12. WHO. WHO Recommendations for the prevention of postpartum haemorrhage. Geneva: World Health Organization; 2009.
13. The AGREE Collaboration. Appraisal of Guidelines for Research and Evaluation. AGREE Instrument. Available at: <http://www.agreecollaboration.org/instrument/>

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