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RHR Department of Reproductive Health and Research

Statement

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WHO Statement regarding the use of misoprostol for postpartum haemorrhage prevention and treatment

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Postpartum haemorrhage is a major cause of maternal mortality. The World Health Organization recommends that active management of the third stage of labour must be offered to all women delivered by skilled birth attendants during childbirth to prevent postpartum haemorrhage. This package of interventions includes administration of oxytocin (10 international units by injection), clamping and cutting of the cord at around 3 minutes after birth, and delivery of the placenta by controlled cord traction.

The objective of this statement is to explain current WHO position regarding misoprostol use after childbirth. It should be read together with the earlier recommendations for the prevention of postpartum haemorrhage (PPH),[1] the more recent recommendations on the management of PPH and retained placenta[2] and the report of the 17th Expert Committee on Selection and Use of Essential Medicines[3].

Misoprostol – a prostaglandin E1 analogue – not only has strong uterotonic activity, but also unlike other prostaglandins, is relatively inexpensive and is stable at room temperature. These two properties have attracted great interest in the drug as an affordable method for preventing and treating postpartum haemorrhage in low and middle income countries. However, systematic reviews of randomized controlled trials show that misoprostol is less effective than oxytocin and other injectable uterotonics and has side-effects such as high temperature and shivering.

Oxytocin is the recommended uterotonic for the prevention and treatment of atonic postpartum haemorrhage. However, WHO acknowledges that in some settings it may not be possible to offer the full package of interventions for the active management of the third stage of labour. These may include the absence of skilled caregivers to offer controlled cord traction, or difficulties in ensuring safe injection practices and/or refrigeration preventing the use of oxytocin.

The WHO recommends the use of misoprostol in settings where it is not possible to use oxytocin or another injectable uterotonic such as ergometrine or an oxytocin and ergometrine fixed-dose combination in the circumstances outlined below. Health workers who will administer misoprostol should be trained in its correct use after birth of the baby and to avoid its administration before birth at incorrect doses, and in identifying and managing its side-effects.

Prevention of postpartum haemorrhage

In the absence of personnel to offer active management of the third stage of labour, it is recommended that the trained health worker should offer misoprostol 600 micrograms orally immediately after the birth of the baby. In such cases no active intervention to deliver the placenta should be carried out.

This recommendation is based on current best evidence and it is understood that there are ongoing studies awaiting publication.

Misoprostol is currently not included in the *WHO Model List of Essential Medicines* for this indication because:

- the estimates of efficacy of misoprostol compared with placebo are not consistent across trials that are in settings mostly likely to be similar to those where this approach would be used;
- there is a significant risk of increased shivering and fever;
- there is an unresolved concern of a possible increase in the risk of maternal mortality.

The Expert Committee will reassess misoprostol for this indication following the publication of on-going/completed studies.

Treatment of postpartum haemorrhage

The use of misoprostol in addition to other injectable uterotonics is not recommended since it does not add any additional protection.

In the absence of any other uterotonic or if all other measures fail, misoprostol can be offered at a dose between 200 and 800 micrograms orally or sublingually as a last resort.

Temperature above 40 degrees Celsius (40°C) and altered consciousness have been observed with doses of 800 micrograms or higher.

Community distribution of misoprostol for prevention and treatment of postpartum haemorrhage

WHO does not recommend distribution of misoprostol to community level health workers or women and their families for routine or emergency use. WHO recommends research at the community-level to investigate how postpartum haemorrhage can be managed effectively at this level.

References

1. *WHO recommendations for the prevention of postpartum haemorrhage.* Geneva, World Health Organization, 2007 (WHO/MPS/07.06).

2. W*HO recommendations for the management of postpartum haemorrhage and retained placenta.* Geneva, World Health Organization, 2009 (in press).

3. *Report of the 17th Expert Committee on Selection and Use of Essential Medicines* [unedited draft]. Geneva, World Health Organization, 2009. (http://www.who.int/selection_medicines/committees/expert/17/WEBuneditedTRS_2009.pdf, accessed on 11 June 2009)

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