Advance misoprostol distribution for preventing and treating postpartum haemorrhage

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There is insufficient evidence to recommend the antenatal distribution of misoprostol to pregnant women for self-administration for the prevention of PPH.

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Evidence summary

A Cochrane systematic review found no randomized controlled trials which provided direct evidence about this topic. The GDG therefore reviewed the literature using a more inclusive search strategy that included non-randomized and other observational studies.

Effectiveness of oral misoprostol only in the reduction of postpartum blood loss

Evidence for the contribution of oral misoprostol only in the reduction of postpartum blood loss came mostly from one randomized controlled trial conducted in rural India. In this trial, 600 μg of oral misoprostol was compared with placebo in the context of the expectant management of the third stage of labour. Misoprostol was administered by auxiliary nurse-midwives who assisted with deliveries at primary health facilities and in homes. An overall reduction was reported in: blood loss (mean difference in total blood loss: -48 ml) (95% CI -63.81 ml to -32.19 ml), PPH (blood loss >500 ml) 149 events (RR 0.53; 95% CI 0.39 to 0.74), and severe PPH (blood loss >1000 ml) 12 events (RR 0.2; 95% CI 0.04 to 0.91). However, firm conclusions cannot be drawn from this evidence as the trial reported too few events related to the impact of misoprostol in severe health outcomes, including severe PPH. (Moderate-quality evidence)

As noted, these deliveries were assisted by auxiliary nurse-midwives at primary health facilities or in homes and the use of misoprostol was supervised by these health professionals. Caution should be exercised when extrapolating data provided by this trial to deliveries that are not assisted by skilled birth attendants, either at home or when the use of misoprostol is unsupervised. (Very-low-quality evidence)

Evidence of a similar very-low quality was provided by other studies. In addition, a non-randomized cluster trial evaluated the use, at a community level, of a supervised 400 μg dose of misoprostol during the third stage of labour. In this study, a reduced risk of self-reported PPH (RR 0.29, 95% CI 0.18 to 0.48) was found. (Very-low-quality evidence).
Feasibility of advanced distribution of misoprostol

Non-randomized and other observational studies suggest that the community distribution of misoprostol during pregnancy is strongly associated with an increased use of misoprostol during the third stage of labour. (Moderate-quality evidence).

Effect of community distribution of misoprostol on health outcomes

A Cochrane systematic review identified no randomized controlled trials providing direct evidence on the effect of the community distribution of misoprostol on health outcomes. Non-randomized trials and other observational studies which evaluated the use of the community distribution of misoprostol did not evaluate the effect on health outcomes or failed to demonstrate any benefit. Some model-derived data and model-based simulations suggest that the community distribution of misoprostol could potentially contribute to a reduction in the burden of PPH in settings of low coverage of skilled birth attendants. However, the primary sources of evidence and the assumptions informing the development of this modelling impacted on the quality of the evidence generated. For example, in the models developed by Pagel, a trial conducted in rural India is the main source of data regarding the effectiveness of misoprostol for reducing PPH through community distribution. However, in this trial, 25 auxiliary nurse midwives undertook the deliveries, administered the study drug, and measured blood loss. (Overall, the quality of evidence was low or very low, mostly due to indirectness.)

Source of evidence


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