



Misoprostol for the Treatment of Postpartum Hemorrhage

Summary of Selected Publications

<i>Treatment of post-partum haemorrhage with sublingual misoprostol versus oxytocin in women not exposed to oxytocin during labour: a double-blind, randomised, non-inferiority trial, Lancet, 2010</i>		
Summary Information	Results	Policy Relevance
<p>Study author(s): Winikoff, B. et al.</p> <p>Setting: Hospitals in Ecuador, Egypt, and Vietnam</p> <p>Dose & route: 800µg sublingual misoprostol vs. 40IU intravenous oxytocin</p> <p>Sample size: n=9348</p> <p>Study design: Randomized, double-blind trial</p> <p>Provider: Skilled</p> <p>Research question: Is 800µg sublingual misoprostol as effective as 40IU intravenous oxytocin for treatment of postpartum hemorrhage (PPH) in women who have not received prophylactic oxytocin?</p>	<ul style="list-style-type: none"> Bleeding was controlled within 20min in 90% of the women given misoprostol and 96% of those given oxytocin. 30% of women bled 300mL or more after misoprostol vs. 17% after oxytocin, while less than 1% of women in each group bled more than 1000mL. Both misoprostol and oxytocin did better than the 88% estimated efficacy of oxytocin used to power the study. 	<ul style="list-style-type: none"> While oxytocin is significantly more effective in treating PPH, misoprostol is also effective in controlling postpartum bleeding. Misoprostol is a suitable first-line treatment alternative in settings where the use of oxytocin is not feasible or oxytocin itself is not available.
<i>Treatment of post-partum haemorrhage with sublingual misoprostol versus oxytocin in women receiving prophylactic oxytocin: a double-blind, randomised, non-inferiority trial, Lancet, 2010</i>		
Summary Information	Results	Policy Relevance
<p>Study author(s): Blum, J. et al.</p> <p>Setting: Hospitals in Burkina Faso, Egypt, Turkey, and Vietnam</p> <p>Dose & route: 800µg sublingual misoprostol vs. 40IU intravenous oxytocin</p> <p>Sample size: n=809</p> <p>Study design: Randomized, double-blind trial</p> <p>Provider: Skilled</p> <p>Research question: Is misoprostol (800µg sublingual) as effective as intravenous oxytocin (40IU) for treatment of PPH in women who received prophylactic oxytocin?</p>	<ul style="list-style-type: none"> Bleeding was controlled within 20 min for 89% of women given misoprostol and 90% of those given oxytocin. 34% of women bled 300mL or more after misoprostol vs. 31% after oxytocin. Misoprostol is clinically equivalent to oxytocin when used to stop excessive postpartum bleeding suspected to be due to uterine atony in women who received oxytocin for prevention of PPH. 	<ul style="list-style-type: none"> In women who experience PPH after prophylactic oxytocin 800µg sublingual misoprostol is a viable alternative treatment to 40IU intravenous oxytocin. In settings with shortages of skilled staff or intravenous equipment, use of misoprostol for treatment of postpartum hemorrhage could reduce delays in treatment, the need for transfer to higher-level facilities, and decrease the workload for skilled providers at referral centers.
<i>Controlling postpartum haemorrhage after home births in Tanzania, International Journal of Gynecology & Obstetrics, 2005</i>		
Summary Information	Results	Policy Relevance
<p>Study author(s): Prata, N. et al.</p> <p>Setting: Rural, Kigoma, Tanzania</p> <p>Dose & route: 1000µg rectal misoprostol</p> <p>Sample size: n=849</p> <p>Study design: Village intervention</p> <p>Provider: Traditional birth attendant (TBA)</p> <p>Research question: Can TBAs diagnose and treat PPH with misoprostol?</p>	<ul style="list-style-type: none"> Intervention group: <2% needed referral; of those, 1% needed additional intervention. Non-intervention group: 19% needed referral; of those, 95% needed intervention. Minimal side effects were experienced; they were transient and manageable at household level. No adverse effect such as death; no referral needed for side effects. 	<ul style="list-style-type: none"> Level of access: misoprostol is highly effective for treatment at the household level. TBAs are able to diagnose excessive bleeding and safely administer misoprostol at the appropriate time. Misoprostol availability for home births significantly reduced the need for bleeding-related referrals and additional interventions.

[Rectal misoprostol for postpartum hemorrhage], Gynécologie Obstétrique & Fertilité, 2004		
Summary Information	Results	Policy Relevance
<p>Study author(s): Shojai, R. et al</p> <p>Setting: Tertiary hospital</p> <p>Dose & route: 1000µg rectal misoprostol</p> <p>Sample size: n=41 (unresponsive to oxytocin)</p> <p>Study design: Descriptive</p> <p>Provider: Skilled</p> <p>Research question: What is an effective treatment guideline for PPH using rectally administered misoprostol?</p>	<ul style="list-style-type: none"> • Hemorrhage was controlled among 63% of the patients within 10 minutes of the administration of rectal misoprostol; 37% received both misoprostol and sulprostone. • Hemorrhage was controlled among 87% of the patients when oxytocics were combined with misoprostol and sulprostone. • No major side effects were noted when combining the two prostaglandins. 	<ul style="list-style-type: none"> • 1000µg rectal misoprostol is an effective second- line treatment for the management of PPH unresponsive to oxytocin • Bleeding was controlled within 10 minutes of administration of misoprostol. • There were no major side effects when combining misoprostol with sulprostone.
Misoprostol in the treatment of postpartum hemorrhage in addition to routine management: a placebo randomised controlled trial, BJOG: An International Journal of Obstetrics & Gynecology, 2004		
Summary Information	Results	Policy Relevance
<p>Study author(s): Walraven, G. et al.</p> <p>Setting: Hospital, Farafenni, Gambia</p> <p>Dose & route: 200µg oral + 400µg sublingual</p> <p>Sample size: n=160</p> <p>Study design: Randomized controlled trial</p> <p>Provider: Skilled</p> <p>Research question: Are 200µg oral and 400µg sublingual misoprostol safe and does misoprostol confer additional benefits when combined w/conventional management of PPH?</p>	<ul style="list-style-type: none"> • Women with PPH received routine management and misoprostol or placebo; average amount of additional blood loss was lower in misoprostol group: 325mL vs. 410mL in placebo group. • 16.5% of those in misoprostol group experienced additional blood loss ≥ 500mL compared to 28.4% in the placebo group. 	<ul style="list-style-type: none"> • Misoprostol for treatment of PPH is safe and confers additional benefits when used as an adjunct therapy with other uterotonics.