



Misoprostol for Medication Abortion

Summary of Selected Publications

<i>Two medical abortion regimens for late first-trimester termination of pregnancy: A prospective randomized trial, Contraception, 2010</i>		
Summary Information	Results	Policy Relevance
<p>Study author(s): Dalenda, C. et al.</p> <p>Setting: Maternity center, Tunis, Tunisia</p> <p>Dose & route: Group 1: 200mg mifepristone + 400µg oral misoprostol vs. Group 2: 800µg vaginal single dose misoprostol</p> <p>Sample size: n=122</p> <p>Study design: Prospective randomized controlled trial</p> <p>Provider: Skilled</p> <p>Research question: For late first trimester termination of pregnancy, how do the two nonsurgical abortion regimens above compare in efficacy, safety and acceptability?</p>	<ul style="list-style-type: none"> • Complete abortion success rates did not differ significantly: 81% Group 1 vs. 78% Group 2 • Abdominal pain was more common in women of the misoprostol-only regimen (44% in Group 1 vs. 71% in Group 2) • No significant difference in other side effects across groups • Medication abortion (MA) was equally acceptable across the two groups: 75% Group 1 vs. 76% Group 2 	<ul style="list-style-type: none"> • For late first trimester abortion, a single 800µg vaginal dose of misoprostol is as effective as the mifepristone + misoprostol regimen with comparable success rates. • A misoprostol-only regimen offers a good alternative to surgical methods in countries where mifepristone is not licensed. • Medication abortion should be offered routinely to women seeking abortion at 9-12 weeks of pregnancy, thereby expanding choice of abortion procedures.
<i>Rates of serious infection after changes in regimens for medical abortion, The New England Journal of Medicine, 2009</i>		
Summary Information	Results	Policy Relevance
<p>Study author(s): Fjerstad, M. et al.</p> <p>Setting: Planned Parenthood Clinics, United States</p> <p>Dose & route: 200mg mifepristone followed 24-48 hours later by 800µg buccal vs. 800µg vaginal misoprostol</p> <p>Sample size: n=227,823</p> <p>Study design: Retrospective analysis</p> <p>Provider: Skilled</p> <p>Research question: Did the rate of serious infection after medication abortion differ during the time when misoprostol was administered vaginally vs. when the regimen switched to buccal administration with additional infection-reduction measures?</p>	<ul style="list-style-type: none"> • Rates of serious infection dropped significantly, by 73% after the joint change to buccal misoprostol from vaginal misoprostol and to either testing for sexually transmitted infections or routine provision of antibiotics as part of the MA regimen. • The subsequent change to routine provision of antibiotics led to further significant reduction in the rate of serious infection: 76% decline. 	<ul style="list-style-type: none"> • Buccal administration of misoprostol along with infection prevention measures can lead to fewer infections among women receiving medication abortion services. • Provision of routine antibiotics coupled with a highly monitored, system-wide surveillance network can contribute to reductions in the rates of serious infections associated with medication abortion.
<i>Reducing maternal mortality due to elective abortion: Potential impact of misoprostol in low-resource settings, International Journal of Gynecology and Obstetrics, 2007</i>		
Summary Information	Results	Policy Relevance
<p>Study author(s): Harper, C. et al.</p> <p>Setting: Africa, Asia and Latin America</p> <p>Study design: Modeling exercise</p> <p>Research question: What impact does increasing use of misoprostol for elective abortion have on maternal mortality due to abortion in low-resource settings in Africa, Asia and Latin America?</p>	<ul style="list-style-type: none"> • Where high maternal mortality rates exist, there is a 15% reduction in mortality if 20% of abortion procedures are misoprostol-induced; 30% reduction with 40% misoprostol-induced; 45% reduction with 60% misoprostol-induced (up to 30,500 lives saved annually). • Where low maternal mortality rates prevail, there is a 16.5% reduction in mortality if 20% misoprostol-induced; 33% reduction in mortality if 40% misoprostol-induced; 49% reduction if 60% misoprostol-induced. 	<ul style="list-style-type: none"> • Countries where maternal mortality is highest stand to gain the most by introducing misoprostol-only abortion services, but even in Latin America, more widespread use of misoprostol-induced abortion could lead to a large reduction in maternal mortality. • Informed use of misoprostol, particularly knowledge of a correct regimen and where to seek postabortion care, is necessary to realize the full benefits. • Given the higher mortality with second trimester termination, initiating the regimen early in pregnancy could dramatically affect mortality.

Efficacy of two intervals and two routes of administration of misoprostol for termination of early pregnancy: A randomized controlled equivalence trial, Lancet, 2007

Summary Information	Results	Policy Relevance
<p>Study author(s): von Hertzen, H. et al.</p> <p>Setting: 11 gynecological centers in Armenia, Cuba, Georgia, India, Mongolia, Vietnam</p> <p>Dose & route: Four treatment groups: three doses of 800µg misoprostol given sublingually at 3 hour intervals, vaginally 3 h, sublingually 12 h, and vaginally 12 h</p> <p>Sample size: n=2066</p> <p>Study design: Randomized-controlled equivalence trial</p> <p>Provider: Skilled</p> <p>Research question: Are short (3 h) and long (12 h) intervals between misoprostol doses equivalent and sublingual and vaginal routes of administration equivalent in achieving complete abortion, within a margin of 5%?</p>	<ul style="list-style-type: none"> • In the 3-h groups, complete abortion rates at 2-week follow-up after sublingual (84%) and vaginal administration (85%) were equivalent. • In the 12-h groups, vaginal administration had higher completion rates (83%) than sublingual (78%), and equivalence was not shown. • Pregnancy-related symptoms (nausea, vomiting) increased after first dose, but frequency decreased as treatment advanced. • Pain was the most frequent side effect and increased after second dose of misoprostol when given at 3-h intervals. 	<ul style="list-style-type: none"> • Misoprostol can be used either vaginally or sublingually for termination of pregnancy. • Administration interval can be chosen between 3 hours and 12 hours when misoprostol is given vaginally. If administration is sublingual, intervals between misoprostol doses need to be short, but side effects are then increased.

Factors affecting the outcome of early medical abortion: A review of 4132 consecutive cases, BJOG: An International Journal of Obstetrics & Gynaecology, 2002

Summary Information	Results	Policy Relevance
<p>Study author(s): Ashok, P. et al.</p> <p>Setting: Aberdeen Royal Infirmary, Scotland</p> <p>Dose & route: 200mg mifepristone + 800µg vaginal misoprostol (with second dose of 400µg vaginal misoprostol, as needed)</p> <p>Sample size: n=4132</p> <p>Study design: Prospective observational study</p> <p>Provider: Skilled</p> <p>Research question: What is the outcome of a regimen of a reduced dose of mifepristone followed by one or two doses of vaginal misoprostol as a nonsurgical method for termination of pregnancy?</p>	<ul style="list-style-type: none"> • The overall complete abortion rate was 97.7%. 94 (2.3%) women required surgical intervention, 0.3% due to continuing pregnancy. • 95 (2.3%) completed within 48 hours of mifepristone only, and 3,942 (95.4%) achieved complete abortion following administration of one or two doses of misoprostol. • Following change of the regimen to include the possibility of two doses of misoprostol (after a 2000 study), the continuing pregnancy rates were reduced (OR = 5.88) and gestational age ceased to have an effect on efficacy. 	<ul style="list-style-type: none"> • Mifepristone in combination with one to two doses of vaginal misoprostol is an effective regimen for early medication abortion. • The option of a second misoprostol dose can abolish the effect of gestational age on overall completion rates. • The regimens tested were effective and safe with minimal side effects.