ABSTRACT: The World Health Organization estimates that 67,000 women, mostly in developing countries, die each year from untreated or inadequately treated abortion complications. Postabortion care, a term commonly used by the international reproductive health community, refers to a specific set of services for women experiencing problems from all types of spontaneous or induced abortion. There is increasing evidence that misoprostol is a safe, effective, and acceptable method to achieve uterine evacuation for women needing postabortion care. To reduce maternal mortality, availability of postabortion care services must be increased. Misoprostol must be readily available especially for women who do not otherwise have access to postabortion care. Nurses and midwives can safely provide first-line postabortion care services, including in outpatient settings, provided they receive appropriate training and support. Access to contraception and safe abortion services prevents complications from unsafe abortion and decreases the need for postabortion care. It is much less expensive and far better for women's health to prevent the problem of unsafe abortion rather than to treat resulting complications.
tals to settings where physicians and surgical services are not available.

**Efficacy**

A review of the recent literature on misoprostol shows that it successfully completes expulsion in approximately 66–99% of women who receive it for incomplete, inevitable, and missed abortion in the first trimester (4–12). Specifically, one extensive review found median success was 80% or higher for missed abortion and 92% for incomplete abortion treated with misoprostol (15). Misoprostol may be more successful at treating women experiencing an incomplete abortion compared with a missed abortion (12, 14). Although studies show a range of efficacy, higher success has been achieved when clinicians wait for 1–2 weeks after misoprostol treatment before judging success or failure (11, 13, 15). Efficacy rates usually are higher in studies where outcome is determined by clinical parameters such as uterine size and cervical exam rather than ultrasound criteria.

**Indications**

Misoprostol may be used to treat women with an incomplete and missed abortion. Incomplete abortion usually is diagnosed when a pregnant woman has an open cervix and has passed some, but not all of the products of conception (16). Missed abortion usually is diagnosed when a pregnant woman has a closed cervix and a uterus that does not increase in size over time or an ultrasound examination that shows either an anembryonic pregnancy or embryonic demise.

No published studies have investigated the use of misoprostol to treat women with septic abortion.

**Contraindications**

Women with suspected ectopic pregnancy, hemodynamic instability or allergies to misoprostol should not be treated with misoprostol (13).

**Protocols**

The protocols listed as follows apply to women whose uterine size is less than 12 weeks of gestation (13). The optimal protocol has not yet been defined (15). However, there is ample evidence in the literature to make a few key recommendations:

- **Incomplete abortion:** misoprostol, 600 mcg orally (4, 5, 9, 11, 13, 15, 17). Misoprostol, 400 mcg sublingually, is a promising alternative but supporting published research is currently limited (13).

- **Missed abortion:** misoprostol, 800 mcg vaginally (10, 12) or 600 mcg sublingually; may be repeated every 3 hours for two additional doses (18, 19). The impact of repeat doses is not clear. Moistening the tablets before vaginal application in this circumstance does not appear to improve efficacy (20).

**Side Effects**

Women treated with misoprostol for an incomplete or missed abortion will experience vaginal bleeding. Usually the bleeding is not clinically significant and does not require intervention (7, 15). Typically, women experience bleeding heavier than a menses for approximately 3 or 4 days, and then it lightens to spotting. In one prospective, randomized study of 652 women undergoing treatment for early pregnancy failure, women receiving misoprostol experienced larger decreases in hemoglobin compared with women treated with curettage—although actual levels of hemoglobin decrease were small (7). In this study, median duration of bleeding was 12 days.

Other side effects include nausea, vomiting, fever, and chills, most of which occur only a minority of women (6). Diarrhea is more common following sublingual compared with vaginal misoprostol (21). Misoprostol appears to be highly acceptable for women requiring treatment for an incomplete or missed abortion; 78–99% stated that it was either satisfactory, very satisfactory, or would use it again and recommend it to a friend (4–6, 11, 12).

Serious complications are rare; in one prospective randomized trial hospitalization for endometritis or hemorrhage occurred in less than 1% of patients (12). In situations where safe conditions for surgery cannot be assured, misoprostol may be the preferred method of treatment (15).

**Pain Management**

Women receiving postabortion care should be offered pain management options according to what is locally available and clinically appropriate; ideally, both non-steroidal antiinflammatory agents such as ibuprofen as well as narcotic analgesics should be offered.

**Infection Prevention**

Universal precautions should be used when contact with blood or body fluids is anticipated (22). Appropriate hygiene and infection prevention behaviors are recommended to prevent the spread of infection. For example, hand washing should be done after coming into contact with any blood or tissue, and proper infectious waste disposal should be utilized. No evidence exists delineating whether or not antibiotics prevent infection when used in conjunction with postabortion care regardless of the method of uterine evacuation used. However, antibiotics have been shown to decrease infection in women undergoing vacuum aspiration during abortion (23). Lack of antibiotics should not serve as an obstacle to receiving care.

**Contraception**

Women should be counseled about and offered contraception when receiving postabortion care. Contraceptive acceptance and continuation rates are higher when offered at the site of initial treatment (24–27). All women
need to know that fertility returns within just a few weeks after abortion and, thus, they need to protect themselves from unintended pregnancy. Many women and their partners have questions about side effects and risks of modern contraceptive methods. These concerns should be addressed in the counseling session. Regular supplies of contraceptive commodities should be ensured.

**Follow-up**

Women should be evaluated 1–2 weeks after misoprostol administration in order to ensure complete abortion. This can be done through obtaining a history and clinical examination (4, 11). If the process is not yet finished and as long as the woman is clinically stable, she may be offered a choice between expectant management or a repeat dose of misoprostol at the follow-up visit (18). The follow-up visit is also a good time to reiterate key contraceptive messages and to involve the male partner.

**Recommendations**

- Increase availability of postabortion care services in order to reduce maternal mortality. In many countries, postabortion care is difficult to obtain and women often have to travel considerable distances to reach services. The complete postabortion care model should be expanded beyond hospital settings to community health centers. Involvement of men in promoting community support for access to postabortion care and contraceptive services should be encouraged. Advocacy to increase awareness of the need for timely treatment of abortion complications also will improve access.
- Misoprostol must be readily available, especially for women who do not otherwise have access to postabortion care. Barriers to a sustainable misoprostol supply must be eliminated in order to ensure that underserved women receive treatment.
- Postabortion care services need not be dependent on the availability of obstetrician–gynecologists or surgeons. Nurses and midwives can safely provide first-line postabortion care services, including in outpatient settings, provided they receive appropriate training and support (28).
- Access to contraception and safe abortion services prevents complications from unsafe abortion and decreases the need for postabortion care (29, 30). It is much less expensive and far better for women’s health to prevent the problem of unsafe abortion rather than to treat resulting complications.

**References**


