regimen for treatment of incomplete abortion with misoprostol is a single dose of 600 mcg misoprostol orally OR a single dose of 400 mcg misoprostol sublingually (under the tongue).

Missed abortion: In the instance where diagnosis of missed abortion is certain and/or the cervix is firmly closed, the recommended regimen is a single dose of **800 mcg misoprostol vaginally.**

Highest success rates are achieved with extended follow-up (7 to 14 days) to allow completion of expulsion. Surgical intervention is not recommended prior to 7 days after treatment unless medically necessary.

Notes:

- There is also evidence that a repeated dose may increase efficacy.
- Misoprostol probably also works well when placed between the cheek and gum (buccally).

SUGGESTED CITATION

Consensus Statement: Instructions for Use-Misoprostol for Treatment of Incomplete Abortion and Miscarriage. Expert Meeting on Misoprostol sponsored by Reproductive Health Technologies Project and Gynuity Health Projects. June 9, 2004. New York, NY.

For a reference list of literature supporting this document or for more information, refer to www.gynuity.org or www.rhtp.org

This document will be periodically reviewed and updated with current information and research developments.

© 2008 Gynuity Health Projects and Reproductive Health Technologies Project.



INSTRUCTIONS FOR USE

MISOPROSTOL FOR TREATMENT OF INCOMPLETE ABORTION AND MISCARRIAGE

BACKGROUND

Misoprostol is a prostaglandin E1 analog generally registered for prevention and treatment of gastric ulcers resulting from chronic administration of nonsteroidal anti-inflammatory drugs (NSAIDs). As misoprostol also induces uterine contractions, it is commonly used off-label for treatment of early pregnancy failures including incomplete and missed abortions. Studies have demonstrated that misoprostol can be used effectively and safely for these indications. This information is presented for the guidance of trained healthcare providers.

INDICATION AND USAGE

Misoprostol is indicated for treatment of incomplete abortion and miscarriage for women with uterine size less than or equal to 12 weeks LMP at presentation.

Use of misoprostol for incomplete abortion has a success rate of 66 -100% using the recommended doses. Use of misoprostol for missed abortion has a success rate of 60-93% using the recommended dose.

CONTRAINDICATIONS

- History of allergy to misoprostol or other prostaglandin
- · Suspicion of ectopic pregnancy
- Signs of pelvic infection and/or sepsis
- Symptoms of hemodynamic instability or shock

PRECAUTIONS

- Women eligible for misoprostol, but with an IUD in place, should have the IUD removed before drug administration.
- Caution is advised when treating women with known bleeding disorders or currently taking anti-coagulants.
- Misoprostol may be used with caution in patients with uterine size larger than 12 weeks LMP but with a known gestational age less than or equal to 12 weeks (e.g. uterine enlargement due to fibroids).
- Small amounts of misoprostol or its active metabolite may appear in breast milk. There are no known consequences of this and no adverse effects on nursing infants have been reported.

EFFECTS AND SIDE EFFECTS

Prolonged or serious effects and side effects are rare.

BLEEDING

After administration of misoprostol, bleeding typically lasts up to two weeks with additional days of spotting that can last until the next menstrual period.

The woman should be instructed to contact a provider if any of the following occur: (1) if she soaks more than two extra large sanitary pads an hour for more than two consecutive hours, (2) if she suddenly experiences heavy bleeding after bleeding has slowed or stopped for several days, (3) if she has bled continuously for several weeks and begins to feel dizzy or light-headed.

CRAMPING

Cramping usually starts within the first few ours and may begin as early as 30 minutes after misoprostol administration. The pain may be stronger than that experienced during a regular period. Nonsteroidal anti-inflammatory drugs (NSAIDs) or other analgesia can be used for pain relief without affecting the success of the method.

FEVER AND/OR CHILLS

Chills are a common side effect of misoprostol but are transient. Fever is less common and does not necessarily indicate infection. An antipyretic can be used for relief of fever, if needed. If fever or chills persist beyond 24 hours after taking misoprostol, the woman may have an infection and should seek medical attention.

NAUSEA AND VOMITING

Nausea and vomiting may occur and will resolve 2 to 6 hours after taking misoprostol. An antiemetic can be used if needed.

DIARRHEA

Diarrhea may also occur following administration of misoprostol but should resolve within a day.

DOSAGE AND ADMINISTRATION

Incomplete abortion: The recommended

REFERENCE LIST FOR "INSTRUCTIONS FOR USE: MISOPROSTOL FOR TREATMENT OF INCOMPLETE ABORTION AND MISCARRIAGE"

- Bagratee JS, Khullar V, Regan L, Moodley J, Kagoro H. A randomized controlled trial comparing medical and expectant management of first trimester miscarriage. Human Reproduction 2004; 19(2): 266-271.
- Bique C, M. Ustá, B. Debora, E. Chong, E. Westheimer and B. Winikoff. Comparison of misoprostol and manual vacuum aspiration for the treatment of incomplete abortion. International Journal of Gynecology & Obstetrics 2007; 98(3): 222-6.
- Blanchard K, Taneepanichskul S, Kiriwat O, Sirimai K, Svirirojana N, Mavimbela N, Winikoff B. Two regimens of misoprostol for treatment of incomplete abortion. Obstetrics and Gynecology 2004; 103: 860-865.
- Chung TK, Cheung LP, Leung TY, Haines CJ, Chang AM. Misoprostol in the management of spontaneous abortion. British Journal of Obstetrics and Gynaecology 1995 Oct; 102(10):832-5.
- Chung TK, Lee DT, Cheung LP, Haines CJ, Chang AM. Spontaneous abortion: a randomized, controlled trial comparing surgical evacuation with conservative management using misoprostol. Fertility and Sterility 1999 Jun; 71(6):1054-9.
- <u>Creinin MD, Moyer R, Guido R.</u> Misoprostol for medical evacuation of early pregnancy failure. Obstetrics and Gynecology 1997; 89: 768-772.
- Dao B, Blum J, Thieba B, Raghavan S, Ouedraego M, Lankoande J, Winikoff B. Is misoprostol a safe, effective and acceptable alternative to manual vacuum aspiration for postabortion care? Results from a randomised trial in Burkina Faso, West Africa. British Journal of Obstetrics and Gynaecology 2007 Nov; 114(11):1368-75.
- <u>Demetroulis C, Saridogan E, Kunde D, Naftalin AA.</u> A prospective randomized control trial comparing medical and surgical treatment for early pregnancy failure. Human Reproduction 2001 Feb; 16(2):365-9.
- Diop A, Raghavan S, Rakotovao JP, Comendant R, Blumenthal PD, Winikoff B. Comparison of two routes of administration for misoprostol in the treatment of incomplete abortion: A randomized clinical trial. *In Submission*.
- Gronlund L, Gronlund AL, Clevin L, Anderson B, Palmgren N, Lidegaard A. Spontaneous abortion: Expectant management, medical treatment or surgical evacuation. Acta Obstet Gynecol Scand 2002: Aug 81 (8) 781-2.
- Henshaw RC, Cooper K, El-Refaey H, Smith NC, Templeton AA. Medical management of miscarriage: Non-surgical uterine evacuation of incomplete and inevitable spontaneous abortion. British Medical Journal 1993; 306: 894-5.

- <u>Herabutya Y. O-Prasertsawat P.</u> Misoprostol in the management of missed abortion. International Journal of Gynecology and Obstetrics 1997; 56: 263-6.
- de Jonge ET, Makin JD, Manefeldt E, De Wet GH, Pattinson RC. Randomised clinical trial of medical evacuation and surgical curettage for incomplete miscarriage. British Medical Journal 1995 Sep 9; 311(7006):662.
- <u>Muffley PE, Stitely ML, Gherman RB.</u> Early intrauterine pregnancy failure: a randomized trial of medical versus surgical treatment. American Journal of Obstetrics and Gynecology 2002 Aug;187(2):321-5; discussion 325-6.
- Ngai SW, Chan YM, Tang OS, Ho PC. Vaginal misoprostol as medical treatment for first trimester spontaneous miscarriage. Human Reproduction 2001 July;16(7):1493-6.
- Ngoc NTN, Blum J, Durocher J, Quan TTV, Winikoff B. Medical management of incomplete abortion using 600 versus 1200 mcg of misoprostol. Contraception 72 (2005) 438-442.
- Ngoc NTN, Blum J, Westheimer E, Quan TTV, Winikoff B. Medical termination of missed abortion using misoprostol in Vietnam. International Journal of Gynecology and Obstetrics 2004 Nov; 87 (2): 138-42.
- <u>Pandian Z, Ashok P, Templeton A.</u> The treatment of incomplete miscarriage with oral misoprostol. British Journal of Obstetrics and Gynaecology 2001 Feb;108(2):213-4.
- <u>Pang MW, Lee TS, Chung TK.</u> Incomplete miscarriage: A randomized controlled trial comparing oral with vaginal misoprostol for medical evacuation. Human Reproduction 2001 Nov;16(11): 2283-7.
- <u>Shwekerela B, Kalumuna R, Kipingili R, Mashaka N, Westheimer E, Clark W, Winikoff B.</u> Misoprostol for treatment of incomplete abortion at the regional hospital level: Results from Tanzania. British Journal of Obstetrics and Gynaecology 2007 Nov; 114(11): 1363-7.
- Tang OS, Lau WN, Ng EH, Lee SW, Ho PC. A prospective randomized study to compare the use of repeated doses of vaginal and sublingual misoprostol in the management of first trimester silent miscarriages. Human Reproduction 2003; 18: 176-181.
- Weeks A, Alia G, Blum J, Ekwaru P, Durocher J, Winikoff B, Mirembe F. A randomised trial of oral misoprostol versus manual vacuum aspiration for the treatment of incomplete abortion in Kampala, Uganda. Obstetrics and Gynecology 2005 Sep;106(3):540-7.
- Wood SL, Brain PH. Medical management of missed abortion: a randomized clinical trial. Obstetrics and Gynecology 2002; 99: 563-566.
- Zhang J, Gilles JM, Barnhart K, Creinin MD, Westhoff C, Frederick MM. A comparison of medical management with misoprostol and surgical management for early pregnancy failure. New England Journal of Medicine 2005; 353:761-9.

© 2008 Compiled by Gynuity Health Projects

