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Can misoprostol and mifepristone be used for medical management of abortion after the first trimester?

Summary

While misoprostol in combination with mifepristone is most commonly used by clinicians in the United States to end an early pregnancy (<10 weeks of gestation), it may be used later in gestation as well. In the United States, surgical methods are more commonly used after the first trimester.[1] The medications used for abortions after the first trimester are often the same as those used in early pregnancy, though the dosages differ depending on gestational age. In the United States and Western Europe, mifepristone and misoprostol are the most commonly used medications. Mifepristone acts on the endometrium to block the action of progesterone, which is required to maintain pregnancy. Misoprostol causes cervical softening and uterine contractions that open the cervix and expel the contents of the uterus, including the pregnancy and the placenta. The safety of these procedures has recently been summarized in a report from the National Academies of Sciences, Engineering, and Medicine (NASEM).[2] Many organizations, including the World Health Organization (WHO),[3] the National Abortion Federation (NAF),[4] the Society of Family Planning (SFP),[5] the American College of Obstetricians and Gynecologists (ACOG),[6] the Royal College of Obstetricians and Gynaecologists (RCOG),[7] and Gynuity Health Projects[8] (Gynuity) have published clinical instructions for medical management of abortion in pregnancies at later gestational ages using misoprostol in combination with mifepristone (if available), from 12 weeks or later (referred to as later medication abortion in this fact sheet).* Outside of the clinical setting, the use of mifepristone and misoprostol for inducing abortion up to 24 weeks has also been documented in Indonesia and Argentina.[9,10]

Medications used in later medication abortion

As in early pregnancy, the most common medications used for medication abortion at later gestational ages are misoprostol and mifepristone, though misoprostol can be used alone without mifepristone.[5,11,12] Like in early pregnancy, mifepristone blocks the progesterone necessary to maintain pregnancy, and misoprostol causes cervical softening and uterine contractions that open the cervix and expel the uterine contents. ACOG recommends a combined regimen of both mifepristone and misoprostol when available.[6] With a combined regimen at 13–22 weeks, 95% of patients will experience abortion within 24 hours compared to 85% with misoprostol alone,[7] and on average, at 14–21 weeks, complete abortion happens more quickly with a combined regimen compared to misoprostol alone.[13,14] The regimens recommended in the second trimester (13–26 weeks of gestation) by ACOG are as follows:

Mifepristone, 200 mg, administered orally, followed in 24–48 hours by

- Misoprostol, 800 micrograms, administered vaginally, followed by 400 micrograms administered vaginally or sublingually every three hours for up to a maximum of five doses.†

OR

- Misoprostol, 400 micrograms, administered buccally every three hours for up to a maximum of five doses.

If mifepristone is not available:

- Misoprostol, 400 micrograms, administered vaginally or sublingually every three hours for up to five doses;‡ vaginal dosage is superior to sublingual dosage for nulliparous women.
- A vaginal loading dose of 600–800 micrograms of misoprostol followed by 400 micrograms administered vaginally or sublingually every three hours may be more effective.

In some cases, a feticidal agent may be used prior to induction abortion. While data on the use of feticide prior to later medication abortion are limited, they suggest that feticide may be associated with a shorter time between medication administration and completion of the abortion. §, 5,15

Comparison of later medication abortion with dilation and evacuation

Clinical

In the second trimester, surgical abortion, or more specifically dilation and extraction (D&E), is more common than later medication abortion in the United States—though the use of medications for abortion increases with gestational age, particularly after 24 weeks. Two randomized trials show that both later medication abortion and D&E are safe, though both studies were small (18 participants from the United States in the Grimes et al. study, and 66 participants from the United Kingdom in the Kelly et al. study) and were unable to enroll as many participants as they

* At or after 12 weeks (SPF and Gynuity), 13 weeks or later (WHO and ACOG), and 14 weeks or later (NAF and RCOG).

† If the abortion is not complete after five doses, the pregnant person may be allowed to rest for 12 hours before starting the cycle again.

‡ If the abortion is not complete after five doses, the pregnant person may be allowed to rest for 12 hours before starting the cycle again.

§ For the regimen recommendations from the WHO, please refer to the Medical Management of Abortion, 2018 (ref 3) to review new recommendations on medical management of incomplete abortion at or after 13 weeks of gestation, medical management of intrauterine fetal demise at or after 14 up to 28 weeks of gestation; and updated recommendations related to medical management of incomplete abortion at 13 weeks of gestation or higher, and medical management of induced abortion after 12 weeks and at or after 12 weeks.

wanted due to difficulties with recruitment (patients preferred D&E); and thus their results should be interpreted with caution.[16,17] D&E is associated with fewer complications, though this is driven by the fact that more patients undergoing later medication abortion experience retained placenta that requires removal with dilation and curettage.[18] In both randomized trials, D&E was associated with less reported pain on the day of the procedure and less post-procedure bleeding.[16,17] D&E is preferred for patients with morbidly adherent placenta or severe infection. Later medication abortion is preferred when fetal autopsy is important, when the patient wants to be able to hold or bury the fetus, or when the patient's anatomy makes D&E technically challenging.

Logistical

D&E beyond 18 weeks usually requires overnight cervical preparation, and some facilities are not equipped to provide D&E, which requires specialized skills and equipment. Additionally, D&E is not available in some states due to bans on its use,[18] and these restrictions may become more common in the future due to the current political climate. Later medication abortion may require 1–2 days of hospitalization, though evidence supports a one-day model of care up to 24 weeks of gestation, which may include at-home administration of the first dose of medication.[8,19,20] For medication abortion, non-hospital facilities may not have available space for people to wait to expel a pregnancy using medications alone. In some cases, medication abortion involves task shifting and sharing that can contribute to more efficient use of resources,[21] especially in low-resource settings, but can present challenges where task shifting/sharing is not legally permitted.

Patient preference

Clinical factors, logistical issues, and patient preference all play a role in the choice between D&E and medication abortion. In the absence of clinical or logistical requirements, and where possible, patient preference should drive the choice between the two procedures. In studies of patient preference, those who preferred D&E most commonly reported that they wanted to be asleep or that they perceived surgical abortion as being less psychologically traumatic.[22] Evidence has shown that people choose the method they feel will best facilitate their emotional recovery.[22,23] Those who preferred medication abortion most commonly reported that they wanted to avoid general anesthesia and that the wait time for the procedure was shorter (though this study was performed in the United Kingdom where medication abortion may be more available than it is in the United States).[17]

While the US trial (18 participants) showed that nearly all in both groups would use their randomized method again if needed,16 the UK one (66 participants) found that 53% of people undergoing medication abortion and 100% of those undergoing D&E would use the same method again.[17] Those who underwent medication and would instead opt for D&E had higher pain scores on the day of the procedure and more unexpected overnight stays compared to those who would choose medication again.[17]

Importance of choice

There are specific circumstances when medication abortion or D&E might be the preferred method. Given that both methods are safe, more research on the implementation of medication abortion and how this might improve access to later abortion in the United States is needed. Patients should be able to choose the method that is best for themselves and their circumstances.

Frequently Asked Questions

How is pain managed during a medication abortion care later in pregnancy?

There are a range of pain management options available for abortion care, and people have different experiences with and different tolerances for pain. People generally receive a range of pain-relief methods (oral, intramuscular, or IV analgesics and/or epidural anesthesia) for pain management during medication abortion at 14 weeks gestation or more. In most cases, analgesics (e.g. nonsteroidal anti-inflammatory drugs (NSAIDS)), local anesthesia and/or conscious sedation supplemented by verbal reassurance are sufficient. The need for pain management increases with gestational age and narcotic analgesia may be required. Prophylactic NSAIDs at the time of initiation of misoprostol for second-trimester medical abortion may reduce the need for narcotic analgesia.[7]

I need a later abortion. Can I self-manage my abortion using medications?

Medication abortions later in pregnancy often take place in clinical facilities, where they may consist of 1-2 days of hospitalization. However, some people may choose to self manage. For self-managed abortion using medication later in pregnancy, proper counseling is critical to enable the pregnant person to be emotionally and physically prepared for what will happen during and after the abortion. Also, it is important to note that many states have laws that could be used to criminalize self-managed abortion; arrests or investigations based on these laws have occurred in 20 states.[24] Therefore it is important that anyone considering self-managing a later abortion fully understand how to manage potential legal issues. Those with questions about these legal issues can inquire at the following legal hotline: www.reprolegalhelpline.org.

What are the potential complications of medication abortion later in pregnancy?

Overall, abortion is extremely safe, as documented in the recent report from the NASEM.[2] Side effects of the medications used include chills and/or fever, nausea and vomiting, and diarrhea.[25] Complications of medication abortion include retained placenta, which may be reduced if clinicians allow additional time for spontaneous passage of the placenta. Rarely, medication abortion later in pregnancy will fail, and an additional procedure such as dilation and curettage may be required.

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