# Medical abortion: A practice tool for pharmacists

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### Introduction

Abortion has been legal in Canada since 1969. As many as 1 in 3 women will have an abortion, and until recently, surgical abortion (SA) was their only option.2 In 2015, Health Canada approved the use of mifepristone/misoprostol (MIFE/ MISO) for medical abortion (MA), thus improving access to abortion services.3 It is important to note that improved access to abortion services does not mean that more abortions occur.1 In fact, abortion rates remained the same after the approval of medical abortion. The only change is that a larger proportion of abortions are provided through MA compared to a SA. For example, France has had access to MIFE since 1988, and MA is a more popular method of abortion than SA.4 In 2017, Health Canada made several changes to make MIFE/MISO more accessible, such as extending its approved use from 49 days of pregnancy (7 weeks) to 63 days (9 weeks) and removing the training requirements to prescribe or dispense MIFE/MISO.<sup>3</sup> Many Canadian provinces are further increasing access by covering the cost of the medications under their respective provincial public drug plans.

We have developed an infographic to help health care professionals support patients in the process of completing an MA. With access to MA on the rise, it is critical that pharmacists are aware of the role they play in educating and assessing patients who present with a prescription for MA. To develop the infographic, we performed a literature search using terms related to MA such as medical abortion guidelines, medical abortion in Canada, drug interactions AND medical abortion, pharmacists AND medical abortion and medical abortion trends in the PubMed, EMBASE and Google Scholar databases. We also searched for relevant grey literature such as government

reports and local support groups using the Google search engine. This article will review what pharmacists need to know about MIFE/MISO.

#### What is medical abortion?

MA involves the use of 1 or more medication(s) to end a pregnancy. The combination of MIFE/MISO is the only regimen that is approved by Health Canada for MA and is the focus of the infographic. Methotrexate can also be used offlabel in combination with misoprostol to terminate pregnancies. MIFE/MISO is approved for use up to 63 days (9 weeks) of pregnancy and is up to 98% effective if used in this time frame. Although not approved, it can be used after 9 weeks, but it will be less effective.

MIFE is a progesterone receptor modulator with antiprogesterone and antiglucocorticoid activity. <sup>1,5</sup> It is taken first as a 200 mg tablet swallowed with a glass of water. <sup>1,5</sup> MIFE begins the abortion by decreasing the levels of progesterone, which causes the uterine lining to detach, the uterus to become more contractile and the cervix to soften and dilate. <sup>1,5</sup>

MISO is taken 24 to 48 hours after mifepristone and comes packaged as four 200 mcg tablets that are usually taken buccally. Two tablets are placed in each cheek pouch to dissolve for 30 minutes (2 tablets in the left cheek and 2 tablets in the right cheek). Any remnants can then be swallowed with a glass of water. MISO is a synthetic prostaglandin that causes the cervix to soften and the uterus to contract, pushing out the contents of the pregnancy.

MA can be prescribed and dispensed by physicians or nurse practitioners and dispensed by pharmacists.<sup>3</sup> Additional training or witnessed ingestion is no longer a requirement, as long as the practitioner is knowledgeable about MA.<sup>3</sup>

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D0I:10.1177/1715163519840270

Therefore, patients can complete a MA in the comfort of their home, with the agreement of a follow-up visit with their prescriber after 7 to 14 days to confirm the abortion was successful.<sup>1,5</sup>

## Contraindications to medical abortion

There are several conditions where MIFE/MISO is contraindicated, although some are relative. 1,5 Pharmacists should confirm that no contraindications exist before dispensing MA. The Canadian Abortion Providers Support network provides useful checklists for prescribers and pharmacists. Absolute contraindications include the following: the presence of an ectopic pregnancy, as MIFE/MISO will not work and surgery is more appropriate; chronic adrenal failure, as MIFE is a potent antiglucocorticoid that can decrease the action of cortisol replacement therapy; and inherited porphyria, as MIFE can increase the likelihood of an acute porphyria attack. 1,5 Other absolute contraindications include uncontrolled asthma, a known allergy to the medications and patient uncertainty about having an abortion.<sup>1,5</sup>

The presence of an intrauterine device (IUD) is a relative contraindication, as the pregnancy has an increased chance of being ectopic. If an ectopic pregnancy is ruled out, the IUD must be removed before taking the MA medications.<sup>1,5</sup> The need for long-term corticosteroid therapy is a relative contraindication, as effectiveness is reduced for 3 to 4 days after MIFE administration. 1,5 Therefore, either a SA can be offered or the steroid therapy can be adjusted during MA, such as by increasing the dose for a week, although this will require close monitoring.<sup>1,5</sup> Blood loss is routine with MA, so patients who have blood disorders, use anticoagulants or have severe anemia should use MA with caution.<sup>1,5</sup> Patients with severe anemia (<95 mg/L) were excluded from studies in MA.1,5 Surgical abortion is the preferred method in many of these cases. 1,5

## **Drug** interactions

Pharmacists play a significant role during MA dispensing, as they can easily identify drug interactions. While the clinical significance of the drug interactions is not clear, MIFE is metabolized by the CYP3A4 enzyme. CYP3A4 inducers such as rifampicin, barbiturates, carbamazepine and St. John's wort may decrease the effectiveness of mifepristone. CYP3A4 inhibitors like ketoconazole, erythromycin and grapefruit juice may increase the side effects of MIFE, such as

nausea.<sup>5,7</sup> Buccal and vaginal MISO do not have clinically significant drug interactions, although the coadministration with antacids or food may decrease its bioavailability if it is taken orally instead of buccally.<sup>5,7</sup>

## Preparing the patient

Many patients are often uneducated about what to expect when they have a MA. Pharmacists can fill this gap by counselling patients during dispensing. For example, most patients will not feel anything after taking MIFE, but light bleeding may begin.<sup>1,5</sup> Some patients choose to take MISO in the evening to allow the process to occur overnight, especially if they must care for children or family members during the day. Heavier bleeding than menses will start within 3 hours of taking MISO and should only last a few hours. 1,5 Patients should expect to pass tissues ranging from the size of a quarter up to a lemon.<sup>7</sup> Light bleeding usually lasts about 2 weeks, and patients should only use sanitary pads and should avoid tampons.<sup>1,5</sup> Some patients may wonder if they will see a fetus. A fetus should not be obvious if the patient is less than 56 days pregnant (8 weeks).<sup>1</sup>

Most patients will have painful cramps. Pharmacists can recommend nonsteroidal antiinflammatory drugs (NSAIDs) such as ibuprofen or naproxen. <sup>1,5</sup> These are more effective than
acetaminophen, and some patients may also
wish to have a prescription for an opioid. <sup>1</sup> MISO
can cause nausea, diarrhea, dizziness, fever and
headaches usually within 2 to 4 hours of administration. <sup>1,5</sup> Over-the-counter loperamide and
dimenhydrinate can be helpful suggestions to
combat these side effects.

If patients vomit within 1 hour of taking MIFE, the pharmacist can contact the prescriber to request another dose to be taken with an antinausea medication like dimenhydrinate or ondansetron. <sup>1,5</sup> By comparison, MISO is quickly absorbed. If the patient vomits when the MISO is still placed in the cheeks, she should be reassessed in 2 to 3 hours for onset of effect before taking a second dose. <sup>1,5</sup>

Pharmacists should also inquire about the plan for future contraception, as ovulation can occur within 8 days of MA. <sup>1,5</sup> Patients can use condoms or barriers as soon as they feel ready to engage in intercourse. Oral contraceptive pills and progestin-only pills can be started when MISO is taken. <sup>1,5</sup> An IUD can be inserted at the follow-up visit with the MA prescriber. <sup>1,5</sup>

# **Medical Abortion 101**

Medical abortion uses medications instead of surgery to end a pregnancy

## It Is Highly Effective



Ends up to 98% of pregnancies if used in the first 10 weeks

Less effective in later pregnancy

Free in most Canadian provinces

Health Canada approves its use for up to 9 weeks

## What To Expect

After mifepristone

- may have some light bleeding
- many have no bleeding

## After misoprostol



- strong, painful cramping
- bleeding heavier than a period
- may pass lemon-sized clots
- fever over 38°C

24 hrs

within:

- nausea, headache, dizziness, diarrhea
- 2 weeks · light bleeding
- Won't see a fetus if less than 8 weeks gestation

## Managing Side Effects •



diarrhea



vomiting/nausea



cramping



loperamide



dimenhydrinate



naproxen ibuprofen bioigo

Only use pads, not tampons



## - How to Take It



Take 1 mifepristone tablet with a glass of water

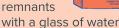
 blocks progesterone in the uterus

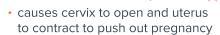
· causes uterus to shed its lining

## **24-48h later**

Put 2 misoprostol tablets in each cheek pouch for 30 mins

Swallow





**MISO** 

## Seek Urgent Care If



- soaking 2 maxi-pads per hour for more than 2 hrs
- clots larger than a lemon for more than 2 hrs
- pain doesn't improve with medication
- fever, nausea, diarrhea, or weakness occuring 24 hrs after taking misoprostol

## After the Abortion

- 8 ovulation can happen within 8 days of an abortion
- can start birth control pills after taking misoprostol
- T can have IUD inserted 7-14 days after misoprostol
- see abortion provider in 7-14 days to confirm the abortion is complete

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Patients should seek urgent care when they are soaking 2 sanitary pads per hour for more than 2 hours, when they are passing tissue larger than a lemon for more than 2 hours and when the pain is unbearable and is not improving with medicine. A fever of 38°C (100.4°F), nausea, vomiting, diarrhea, dizziness or weakness occurring more than 24 hours after MISO administration warrants emergency care. L5

## **Practice tips**

MA provides an additional opportunity for pharmacists to provide patient-centred care. Here are some points to remember:

- Pharmacists do not need to complete a training or certification course to dispense MA.<sup>3</sup>
- MA is covered by most provincial public drug plans.<sup>3</sup>
- MA administration does not need to be witnessed.<sup>3</sup>
- MA is safe and effective. It is approved for use up to 63 days of pregnancy but can be used up to 70 days.<sup>1</sup>
- Keeping a list of contraindications can be helpful to review with every patient before dispensing MA.

- Consider adjusting steroid therapy by increasing the dose for 1 week after taking MISO and monitoring closely.<sup>1</sup>
- Always assess for CYP3A4 drug interactions with MIFE and notify the patient on how MA will be affected.<sup>1,5</sup>
- Educate patients that heavy bleeding usually starts within 3 hours of misoprostol administration and light bleeding can last up to 2 weeks.<sup>1,5</sup>
- Patients should not use tampons, only sanitary pads, during MA. 1,5
- Counsel patients about how to manage side effects with over-the-counter therapies such as NSAIDs, loperamide or dimenhydrinate.
- Educate patients on when they need another dose of medication if they vomit.
- Follow up with your patients to see how they are doing—having a strong support system can be helpful for patients and will strengthen the patient-pharmacist relationship.

#### Conclusion

Pharmacists are in a vital position when it comes to patient education and MA. The next time you see a prescription for MIFE/MISO, take the time to educate your patients on what to expect. It will alleviate much of the discomfort and fears they may have and they will thank you for it.

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**Acknowledgments:** We wish to acknowledge Adrian Poon, who designed the infographic. Thank you to Dr. Judith Soon, Dr. Nese Yuksel and Dr. Sheila Dunn on their feedback on the development of the infographic.

Disclosures: KG conceived of the project. Both researchers were involved in drafting the manuscript and approving the final draft.

**Declaration of Conflicting Interests:** The authors have no conflicts of interest to declare.

Funding: No funding was received for this project.

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