



Resources ♦ Ressources

Emergency contraception

Summary of the Society of Obstetricians and Gynaecologists of Canada's clinical practice guidelines

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Emergency contraception is any method of contraception used after sexual intercourse and before implantation. Because these contraceptive methods work before implantation, they are not abortifacients.

Emergency contraceptive methods

Two methods are accepted for emergency contraception: administration of hormones and insertion of a postcoital intrauterine device (IUD). The most widely used hormonal method in Canada is the Yuzpe regimen (a combination of 100 µg of ethinyl estradiol and 500 µg of levonorgestrel administered in two doses 12 hours apart).¹ Two tablets of Ovral are equivalent to one dose of the Yuzpe regimen. Other products can be substituted if more readily available (**Table 1**). Preven, a product containing the Yuzpe regimen, is approved specifically for emergency contraception. The product might be withdrawn, in which case reliance on nonformulary regimens already in use will continue.

Table 1. Ovral and substitutions

BRAND	PILLS PER DOSE	ETHINYL ESTRADIOL (µG/DOSE)	LEVONORGESTREL (µG/DOSE)
Ovral	2	100	500
Alesse	5	100	500
Triphasil	4 yellow	120	500
Triquilar	4 yellow	120	500
Min-Ovral	4	120	600

Another product for hormonal emergency contraception, called Plan B, is now available in Canadian pharmacies. This progestin-only method uses levonorgestrel (750 µg repeated in 12 hours). A World Health Organization (WHO) study found that Plan B had better efficacy and fewer side effects than the Yuzpe regimen.² This product costs patients about \$15 more than the Yuzpe regimen.

Mechanism of action

Multiple mechanisms of action for hormonal emergency contraception have been suggested, including suppression or delay of ovulation, ovarian steroid changes with corpus luteum disruption, and endometrial changes that inhibit implantation.^{3,4}

Efficacy

The Yuzpe regimen and levonorgestrel-only method prevent about 75% to 85% of the pregnancies that would have occurred had emergency contraception not been used.^{2,5} About 2% of women who use emergency contraception will become pregnant despite using it. Although hormonal emergency contraception has been shown to be effective when used up to 72 hours after sexual intercourse, the WHO study showed that earlier treatment improves efficacy. Delaying the first dose from 12 to 24 hours after sexual intercourse increased the odds of pregnancy by up to 50%.⁶

Postcoital insertion of an IUD has a failure rate of less than 0.1%.⁷

Indications

Emergency hormonal contraception can be used within 72 hours for any woman at risk of pregnancy from unprotected sexual intercourse, multiple missed birth control pills, failure of a barrier method, ejaculation on the external genitalia, or sexual assault. As long as the woman is not pregnant, neither the total number of times unprotected sexual intercourse has occurred, nor the cycle day(s) of exposure is directly relevant to the decision to use emergency contraception.^{2,8}

The substantial failure rate of hormonal emergency contraception makes it inappropriate for ongoing contraception. Repeated use poses no known health risks, however, and should not be a reason for denying women access to treatment. There is evidence that hormonal emergency contraception is somewhat effective up to 5 days after sexual intercourse and could be considered when there are contraindications to using an IUD (**Table 2**).⁹

Table 2. Timing of emergency postcoital contraception

TIME SINCE COITUS (DAYS)	STRATEGY
0-3	Hormonal method or IUD
3-5	Hormonal method* or IUD
5-7	IUD [†]

*Evidence for efficacy is limited.

[†]Up to 5 days after estimated day of ovulation.

Women who present after 72 hours and within 5 to 7 days of sexual intercourse (up to 5 days after estimated ovulation), can be offered a copper-bearing IUD if there are no contraindications to its use. The IUD can remain in place to provide ongoing contraception.^{10,11}

Contraindications

According to the WHO, "there are no known medical contraindications to the use of emergency contraceptive pills."¹² Although they should not be used if a woman knows she is pregnant, there is no evidence for teratogenicity.^{11,13} Breastfeeding is not a contraindication. The hypothetical risk of adverse events associated with use of oral contraceptive pills is unlikely to pertain to the short duration of use for emergency contraception. No substantial increased risk of developing venous thromboembolism has been found with combined hormonal emergency contraception.¹⁴ Despite this finding, the levonorgestrel-only regimen is preferred for women with serious risk factors for estrogen use.

If an IUD is considered, care must be taken to exclude unsuitable candidates. Endocervical cultures should be taken at time of insertion and use of antibiotics considered to reduce the risk of pelvic infection.

Assessment

The last menstrual period and previous unprotected acts of sexual intercourse during that cycle should be assessed to establish whether an existing pregnancy is a concern. Rarely will a pregnancy test be necessary to rule out pregnancy. Risk of sexually transmitted infections, need for ongoing birth control, and whether the unprotected act was coerced should be discussed.

Women should be informed about potential side effects and the need for ongoing contraception for the rest of the cycle. Until the next period, a barrier method, such as a condom, can be used and a different contraceptive method initiated at the beginning of the next cycle. If there is no menstrual bleeding by the 21st day following treatment, a pregnancy test should be done.

Side effects

The main side effects of hormonal emergency contraception are gastrointestinal. The Yuzpe regimen causes nausea in up to 50% and vomiting in up to 19% of patients.² Taking each dose with food and using antinausea medications, such as dimenhydrinate (50 mg), 30 minutes before taking the dose can reduce nausea. Pills are completely absorbed within 1 hour; therefore, replacement dosing is unnecessary if vomiting occurs after an hour.¹⁵ The levonorgestrel regimen is much better tolerated; it causes nausea in only 23% and vomiting in only 6% of patients.² Uncommon side effects of both regimens include headache, bloating, and uterine cramps. Although some women experience spotting, most have their menstrual periods on time.^{2,16}

Postcoital IUD placement is associated with complications, such as cramps, bleeding, infection, perforation, and expulsion.

Access

Patients who might need emergency contraception should be knowledgeable about it before they need it and be able to access it when they need it. As prompt use of emergency contraception appears to be more efficacious, consideration should be given to providing prescriptions for hormonal emergency contraception in advance of need to any woman of reproductive age who is not sterilized.¹⁷ Detailed information must be given about how and when to use it.

Conclusion

Emergency contraception is a safe and effective means of reducing the number of unintended pregnancies. Effective use of emergency contraception is dependent on increasing both public and professional awareness of it and on improving access to this important therapeutic intervention. ♦

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