

# Update of the FSRH guideline on emergency contraception

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**In March, the Faculty of Sexual & Reproductive Healthcare (FSRH) of the Royal College of Obstetricians and Gynaecologists updated their guideline on emergency contraception. This article provides an overview of the new guideline and its key recommendations.**

**T**he Faculty of Sexual & Reproductive Healthcare (FSRH) raises “the status and standing of sexual and reproductive health and the professionals who provide this care” in part by “producing the highest quality clinical guidance, standards, training and education.” The 2017 update to its guideline on emergency contraception<sup>1</sup> certainly meets this aspiration. More comprehensive manual than guideline, it covers indications for emergency contraception, mechanisms of action of the different methods and their drug interactions, special considerations, adverse effects and aftercare.

The FSRH aims to summarise the available evidence on emergency contraception, and in this respect, the guideline provides unique reassurance. A quick glance at the list of recommendations reveals they are underpinned by little very high-quality evidence but there are many good practice points based on the experience of the authors. Such a lack of conclusive evidence might be challenging to policy makers and practitioners alike but the authority of the FSRH is evident in this document, setting a valuable standard for clinical practice.

Not that there's no standard already,



just that it may not be obvious to many primary care practitioners. NICE has recommendations that form part of its 2014 public health guideline on contraceptive services for under-25s (which includes one section on processes for providing emergency contraception),<sup>2</sup> and its 2016 quality standard on contraception includes the quality statement “Women asking for emergency contraception are told that an intrauterine device is more effective than an oral method”.<sup>3</sup> The more detailed FSRH guideline is therefore a much-needed resource for healthcare professionals.

## What are the options?

There are three options for emergency contraception: the copper intrauterine device (Cu-IUD) and the oral medications ulipristal acetate and levonorgestrel. A Cu-IUD may be inserted up to 120

Regular contraceptive	Time of ovulation	Recommendations
Combined hormonal contraceptive	Ovulation cannot reliably be predicted if error occurs in week one; this should be considered an extension of the hormone-free interval Earliest ovulation is 8 days after last correctly taken dose of combined oral contraceptive	Cu-IUD can be inserted up to 13 days after the start of the hormone-free interval provided the combined hormonal method was previously used correctly
Progestogen-only pill (POP)	Earliest ovulation probably 9 days after last correctly taken dose (if POP used correctly previously)	Cu-IUD can be inserted up to 5 days after the first UPSI following the first missed POP (whether desogestrel or traditional POP)
Recently expired depot medroxyprogesterone acetate (DMPA)	Return of ovulation ranges between 15 and 49 weeks after the last injection	Cu-IUD is only recommended up to 5 days after the first UPSI that takes place >14 weeks since the last DMPA injection
Recently removed etonogestrel implant (Nexplanon)	Ovulation returns rapidly after removal of implant	Cu-IUD can be inserted up to 5 days after the first UPSI following implant removal
Levonorgestrel intrauterine system (IUS)	Ovulation could have occurred at any time prior to or after removal	Providing that a woman abstained from UPSI during the 5 days prior to removal of the levonorgestrel IUS, a Cu-IUD can be inserted up to 5 days after the first UPSI following removal
UPSI = unprotected sexual intercourse		

**Table 1.** FSRH recommendations for Cu-IUD insertion after incorrect use of regular contraception<sup>1</sup>

hours (five days) after the first episode of unprotected sexual intercourse (UPSI) in a natural menstrual cycle or up to five days after the earliest estimated date of ovulation (whichever is later); it can be retained until pregnancy is excluded or left in place to provide contraception.

Levonorgestrel is taken as a single oral dose of 1.5mg (3mg if a woman is taking an enzyme-inducing drug, or has a body mass index >26kg/m<sup>2</sup> or weight >70kg); it should be taken as soon as possible (preferably within 12 hours) and no later than 72 hours after UPSI or contraceptive failure. Ulipristal acetate is a progesterone-receptor modulator; it is taken as a single 30mg oral dose as soon as possible and no later than 120 hours after UPSI or contraceptive failure.

### Providing emergency contraception

Emergency contraception should be considered for any woman who does not

wish to conceive after UPSI. It is difficult to estimate the risk of pregnancy in individual cases because it depends on the fertility of both partners, the timing and number of episodes of UPSI, cycle length and variability, and use of contraception.

For women not using hormonal contraception, emergency contraception should be offered after UPSI on any day of a natural menstrual cycle. After pregnancy, emergency contraception should be offered from day 21 after childbirth (unless a woman is fully breastfeeding, amenorrhoeic and within six months of delivery), and from day five after abortion, miscarriage, ectopic pregnancy or uterine evacuation for gestational trophoblastic disease. The risks associated with inserting an IUD outweigh its benefits until 28 days after delivery and an IUD is contraindicated after gestational trophoblastic disease when human chorionic gonadotropin (hCG) levels are persistently elevated.

There are many reasons why hormonal contraception might fail or be used incorrectly (eg long delay in taking the dose, treatment with enzyme-inducing drugs, patch detachment). The guideline provides advice for nine scenarios while acknowledging “there are too many variables relating to incorrect use of contraception to provide advice for every situation”. For example, in the case of a missed or late progestogen-only pill, a Cu-IUD is recommended up to five days after the first UPSI following the first missed pill and the effectiveness of ulipristal acetate might be reduced if the pill was last taken within seven days.

Emergency contraception can be obtained from several providers (eg pharmacies, surgeries, walk-in clinics, young people’s services) but not every outlet can provide the full range. Providers should therefore inform women about the options they cannot offer and signpost them to services where they are availa-

ble. If a woman is referred elsewhere for a Cu-IUD, oral emergency contraception should be given at the time of referral in case of delay or if she changes her mind. Women should also be advised about future contraception and, if appropriate, the risk of sexually-transmitted infection.

## Prescribing emergency contraception

### Mechanisms of action

The Cu-IUD acts by inhibiting fertilisation and implantation. Compared with oral emergency contraception, it can be effective over a longer time period. It can be inserted up to five days after UPSI but, because the earliest that implantation can occur is six days after ovulation, it can also be effective up to five days after ovulation (*ie* up to day 19 of a regular 28-day cycle).

Ulipristal acetate and levonorgestrel delay ovulation for five days. Ulipristal acetate is effective even after the luteinising hormone (LH) surge begins (though not at or after the peak) whereas levonorgestrel is not. After oral emergency contraception, most women will ovulate later in the cycle and they should be informed they are at risk from further episodes of UPSI. Neither oral option is effective if taken after ovulation has occurred and this is a major factor when choosing between the emergency contraception options.

### Effectiveness

The FSRH says “providers should explain that the observed pregnancy rate after UPSI is significantly lower if a Cu-IUD is inserted than if oral emergency contraception is used. If a woman opts for oral emergency contraception, it should be taken as soon as possible after UPSI to have the maximum chance of being taken early enough to delay ovulation.” The overall pregnancy rate (not the same as an individual’s risk, which is determined by the timing of UPSI in relation to fertility) after Cu-IUD is <0.1%. Of the oral options, the overall pregnancy rate associated with ulipristal acetate is 1–2%. Although a similar pregnancy rate is reported for levonorgestrel, a direct comparison suggest that pregnancy risk is two to three times lower with ulipristal acetate than levonorgestrel.

Some evidence suggests that oral emergency contraception is less effective in women who are overweight or obese, and that this has a greater impact on levonorgestrel than ulipristal acetate. While far from conclusive, it is sufficient for the FSRH to recommend a Cu-IUD in such cases and, if this is not suitable, ulipristal acetate over levonorgestrel.

### Drug interactions

A Cu-IUD is unaffected by enzyme-inducing drugs whereas both oral options may be. It is possible to overcome this by doubling the dose of levonorgestrel but a dose increase for ulipristal acetate is not recommended. The possibility of interactions should be considered with HIV post-exposure prophylaxis, though the

Adolescent women	<ul style="list-style-type: none"> <li>Emergency contraception of choice is a Cu-IUD</li> <li>Cu-IUD insertion is not more difficult than in older women and continuation rates are high</li> <li>If an oral option is preferred and concordance with ongoing contraception seems unlikely, levonorgestrel plus immediate insertion of a progestogen-only implant should be considered</li> <li>If UPSI is thought to have occurred in the 5 days before ovulation, ulipristal acetate is first choice</li> </ul>
Perimenopausal women	<ul style="list-style-type: none"> <li>Women who have been naturally amenorrhoeic for a year (age &gt;50 years) or two years (age &lt;50 years) do not need contraception but ovulation cannot be excluded (especially in the under-45s)</li> <li>Discuss the need for emergency contraception individually</li> <li>If contraception taken incorrectly, offer emergency contraception</li> <li>Hormone replacement therapy (HRT) is not contraceptive</li> </ul>
Sexual assault	<ul style="list-style-type: none"> <li>Emergency contraception of choice is a Cu-IUD with antibiotic prophylaxis against sexually-transmitted infection</li> <li>If the woman consents to a forensic examination, IUD insertion should be delayed until this is complete; oral emergency contraception should be offered in the interim in case the delay is prolonged</li> <li>Clinicians must ensure women are fully informed about their choices</li> </ul>
More than one UPSI in a cycle	<ul style="list-style-type: none"> <li>Embryo is not susceptible to teratogenesis in the first 2 weeks</li> <li>Neither ulipristal acetate nor levonorgestrel disrupt or adversely affect pregnancy</li> <li>If UPSI occurred in the last 5 days and possibly more than 21 days previously with no normal menstrual period since, a high-sensitivity urine pregnancy test should be done before oral emergency contraception is taken</li> </ul>
More than one use of emergency contraception in a cycle	<ul style="list-style-type: none"> <li>Both ulipristal acetate and levonorgestrel can be repeated within a cycle</li> <li>Levonorgestrel should not be taken within 5 days of ulipristal acetate</li> <li>The effectiveness of ulipristal acetate may be reduced by taking levonorgestrel within the following 7 days</li> </ul>
UPSI = unprotected sexual intercourse	

**Table 2.** Specific indications for emergency contraception<sup>1</sup>

regimen currently recommended by the British Association for Sexual Health and HIV (tenofovir/emtricitabine and raltegravir) contains no enzyme-inducing drugs that would reduce the effectiveness of oral emergency contraception.

Two other interactions with ulipristal acetate are of uncertain clinical significance. Its absorption is slowed by drugs that lower gastric pH but total absorption is increased; no change in dosing is recommended. A progestogen can affect the delay in ovulation induced by ulipristal acetate; the FSRH recommends avoiding progestogens for five days after ulipristal acetate administration or otherwise choosing levonorgestrel.

Full information about drug interactions affecting hormonal contraception is provided in a separate FSRH publication.<sup>4</sup>

#### Contraindications

There are relatively few contraindications to emergency contraception. For a Cu-IUD, the contraindications are the same for emergency contraception as for long-term contraception. Antibiotic treatment for symptomatic *Chlamydia trachomatis* infection or current *Neisseria gonorrhoeae* infection should be completed before insertion whereas concurrent antibiotic treatment is acceptable for asymptomatic *C. trachomatis*.

Ulipristal acetate may antagonise the effects of glucocorticoids; it is therefore not recommended for women with severe asthma treated with oral steroids. Neither oral option is recommended by the respective manufacturers for women with severe hepatic impairment but the FSRH points out that pregnancy poses a significant risk in such cases and treatment may therefore be justifiable.

#### Breastfeeding

Women who are breastfeeding have another set of issues to consider. There is an increased risk of perforation during IUD insertion between 48 hours and 28 days after delivery and during breastfeeding but the absolute risk during the postpartum period is low (about 6 per 1000 insertions up to 36 weeks after delivery). Ulipristal acetate occurs in breast milk and the risk to the infant is unknown; women are therefore advised not to

breastfeed and to express and discard milk for a week after administration. By contrast, there is no evidence that levonorgestrel affects breastfeeding or the infant.

### Choice of emergency contraception

#### Cu-IUD

There is not a single emergency contraception solution for all women. The Cu-IUD, the most effective option for preventing pregnancy, should be offered as the emergency contraception of choice to everyone, provided it can be inserted either within five days after the first UPSI in a cycle or up to five days after the earliest estimated date of ovulation, whichever is later.

If emergency contraception is needed following incorrect use of regular hormonal contraception, the time period in which a Cu-IUD can be inserted depends on the contraceptive used (see Table 1).

#### Oral emergency contraception

If a woman chooses oral emergency contraception, the most straightforward choice is probably levonorgestrel plus immediately starting suitable ongoing contraception. It is uncertain whether residual circulating progestogen could impair the effectiveness of ulipristal acetate but, if this is the preferred option, hormonal contraception should not be initiated until five days after the dose is taken. These considerations also apply if emergency contraception is required after expiry of the etonogestrel implant (Nexplanon) (year 4) or the levonorgestrel

intrauterine system (year 6), though the risk of pregnancy is "extremely low".

For women who have not been using hormonal contraception and for whom an IUD is inappropriate or not acceptable, ulipristal acetate should be considered the first-line oral emergency contraception if UPSI is likely to have occurred in the five days before the estimated date of ovulation (when risk of pregnancy is highest). When the date of ovulation is uncertain, its use should still be considered. Sperm are viable for about five days after UPSI and fertilisation is possible if ovulation occurs in that period, so there is no rationale for oral emergency contraception more than five days after the most recent UPSI.

#### Specific indications

The FSRH identifies several circumstances when specific issues need to be addressed; these are summarised in Table 2.

### Adverse effects of emergency contraception

Emergency contraception is well tolerated. Headache, nausea and dysmenorrhoea affect about 10% of women who take ulipristal acetate (based on limited evidence) or levonorgestrel. If vomiting occurs within three hours of taking oral emergency contraception, the dose should be repeated. (The FSRH doesn't say what to do if vomiting occurs again but presumably the indication for a Cu-IUD is then stronger.)

There is no evidence that pregnancy or the fetus is adversely affected if preg-

Hormonal contraceptive method	Time additional contraception required after starting method
Combined oral contraceptive (not Qlaira)	7 days
Qlaira	9 days
Combined vaginal ring/transdermal patch	7 days
Progestogen-only pill (traditional or desogestrel)	2 days
Progestogen-only implant or injectable	7 days

**Table 3.** Time period during which abstinence or barrier contraception is required, depending on hormonal contraceptive method started 120 hours after ulipristal acetate emergency contraception<sup>1</sup>

nancy occurs despite oral emergency contraception (again, data on ulipristal acetate are limited) and the risk of ectopic pregnancy is no greater after oral emergency contraception than in the general population. If ulipristal acetate is taken during a cycle in which conception occurs, the pregnancy should be registered at [www.hra-pregnancy-registry.com](http://www.hra-pregnancy-registry.com) and reported to the Medicines and healthcare products Regulatory Agency (MHRA) using the Yellow Card Scheme.

After oral emergency contraception, most women menstruate within seven days of the expected time. Menses are delayed for more than seven days in 20% of women who take ulipristal acetate (this is more common when emergency contraception is taken before ovulation) and in <10% after levonorgestrel. A pregnancy test should be carried out if menses are delayed by more than seven days.

### Future contraception

The Cu-IUD provides immediate contraception but oral emergency contraceptive options do not. The FSRH advises that hormonal contraception should begin immediately after levonorgestrel and five days after ulipristal acetate (because of the potential for progestogens to reduce effectiveness). If a woman chooses not to begin contraception promptly, she must be given information about contraceptive choices and a clear pathway to

- Next menstrual period is delayed by more than 7 days
- Lighter than usual menstrual bleeding
- Menstruation associated with abdominal pain that is not typical of the woman's usual dysmenorrhoea
- Women starting hormonal contraception soon after emergency contraception even if they have bleeding (bleeding associated with the contraceptive method may not represent menstruation)

**Table 4.** Indications for a pregnancy test after emergency contraception access her chosen contraception.

A pregnancy test should be carried out 21 days later to exclude pregnancy. The time period during which use of a barrier method or abstinence are required after ulipristal acetate depends on the type of hormonal contraception started (see Table 3). The levonorgestrel intrauterine system is not recommended unless pregnancy can be reasonably excluded. Other indications for a pregnancy test are listed in Table 4.

### Other information

The FSRH provides a summary of its methodology and 116 references to support its statements. The guideline includes two algorithms to support choosing between emergency contraception options and sample informa-

tion to be given to women considering emergency contraception. A list of audit outcomes and targets is included, and there's even a multiple-choice questionnaire for readers to assess their understanding.

### References

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### Declaration of interests

None to declare.

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