

Contraception: assessing immediate contraceptive needs

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Abstract

Unintended pregnancies are linked to multiple poor maternal and child outcomes. In Britain one in six pregnancies is unplanned (Wellings et al, 2013). Each time a patient presents to hospital, there is an opportunity to address any unmet contraceptive needs, giving patients greater control over pregnancy planning. This article outlines the three options for emergency contraception and discusses simple options for starting an ongoing, regular method of contraception in hospital. The authors recommend signposting patients to online information sources, sexual health centres or their GP for further management.

Key words: Contraception; Hormonal contraception; Intrauterine devices; Postcoital; Pregnancy; Reproductive health; Unplanned

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Introduction

Contraception allows couples and individuals to have control over their reproductive goals and enables choice in when and if to have children. Increased use of contraception globally has led to improved health-related outcomes, such as reduced unintended and high-risk pregnancies, maternal and infant mortality, and has led to improved educational outcomes, especially for women (United Nations Department of Economic and Social Affairs, Population Division, 2020). Provision of contraception is a proven cost-effective health intervention (Mavranzouli, 2009). Globally in 2019, 44% of women of reproductive age were using a recognised form of contraception (United Nations Department of Economic and Social Affairs, Population Division, 2020).

Healthcare professionals can help to reduce the risk of unintended pregnancies by providing emergency contraception and can opportunistically help women to access a regular method of contraception. Discussion around contraceptive choice can be started while in hospital and can be followed up by the patient's GP or a sexual health clinic.

Why asking about contraception is important

With the pressures of the hospital environment, it can be easy to forget to ask about contraception and risk of pregnancy, but asking can be key to the patient's onward care and wellbeing. A patient may have ill health and complex life circumstances and may not have considered their need for contraception or risk of pregnancy. Contraception can be compromised by adherence, gastrointestinal issues and enzyme-inducing drugs. Some patients may have their medication stopped proactively before admission. Combined hormonal contraception use should be discontinued at least 4 weeks before major elective surgery (Joint Formulary Committee, 2022).

As a baseline, consider pregnancy risk in all women of reproductive age and have a low threshold for doing a pregnancy test on admission. Always consider the need for emergency contraception.

Emergency contraception

A patient may need emergency contraception if they have had unprotected sexual intercourse with no form of contraception, or if their contraception may have been compromised (eg missed pills, interacting medications).

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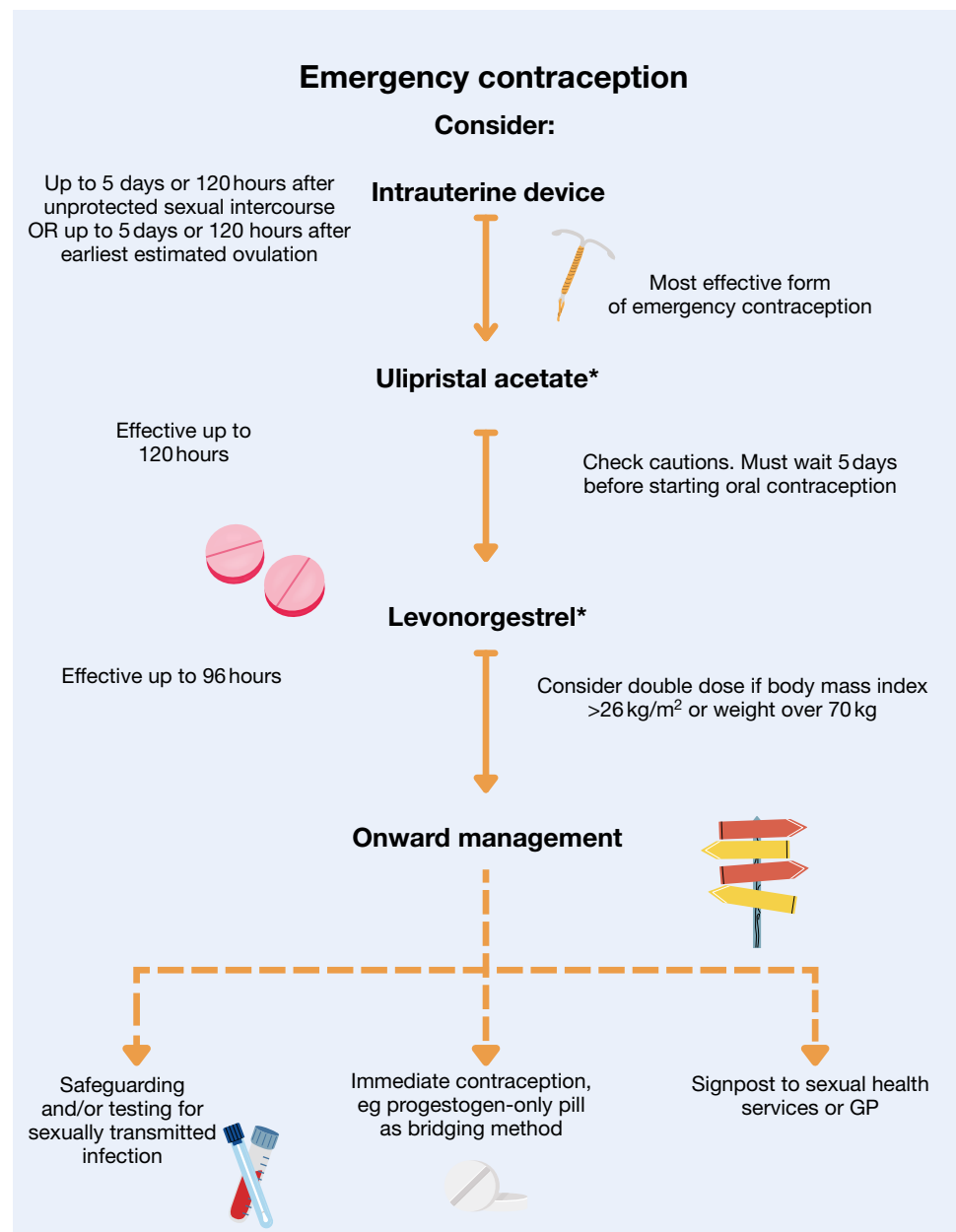


Figure 1. Flowchart to facilitate emergency contraception decision making. *Unlikely to be effective if taken after ovulation, and less effective if the patient has recently taken an enzyme inducer.

There are three options for emergency contraception: the intrauterine device (copper coil) and two oral, hormone-based pills: levonorgestrel and ulipristal acetate (ellaOne). **Figure 1** outlines the considerations when discussing and recommending emergency contraception.

Copper intrauterine device

The most effective form of emergency contraception is the intrauterine device, which is over 99% effective at preventing pregnancy post unprotected sexual intercourse. The intrauterine device can be inserted up to 5 days or 120 hours after the first episode of unprotected sexual intercourse that cycle or up to 5 days or 120 hours after the earliest possible ovulation, whichever is latest (Faculty of Sexual and Reproductive Healthcare, 2015). It is the only method of emergency contraception that is effective after ovulation has taken place. Ovulation is estimated to occur 14 days before menstruation so the earliest estimated date of ovulation can be calculated by taking the shortest menstrual cycle length minus 14 days (eg for a 28-day cycle, ovulation is estimated to occur on day

14 and a postcoital intrauterine device can be inserted up to 5 days after this on day 19 of the cycle). The intrauterine device can be kept in and used as long-term contraception for 5 or 10 years, depending on the type fitted. Insertion of an intrauterine device may not be easily available in the acute medical setting, but consider signposting to suitable facilities if the patient is not being admitted.

Oral emergency contraception

Oral emergency contraception works by stopping or delaying ovulation and is less effective with each day that passes since unprotected sexual intercourse. Ulipristal acetate is preferred as it is licensed for use up to 120 hours after unprotected sexual intercourse and is more effective than levonorgestrel which is licensed for use up to 72 hours post unprotected sexual intercourse. The overall pregnancy rate is around 1–2% after administration of ulipristal acetate and 0.6–2.6% for levonorgestrel (Faculty of Sexual and Reproductive Healthcare, 2020).

Table 1 outlines cautions if use of ulipristal acetate is being considered: if any of these are present levonorgestrel may be more suitable. It is not recommended to start any progestogen-containing medication, including ongoing hormonal contraception, until at least 5 days after taking ulipristal acetate. Hormonal contraception can be started immediately (quick started) if using levonorgestrel.

Increased body weight can reduce the effectiveness of oral emergency contraception, particularly levonorgestrel. If the patient has a body mass index $>26\text{ kg/m}^2$ or weighs $>70\text{ kg}$, consider using ulipristal acetate or doubling the dose of levonorgestrel.

Drugs that induce hepatic CYP450 enzymes can lower the efficacy of oral emergency contraception. In patients taking these drugs, consider using a copper intrauterine device or a double dose of levonorgestrel (doubling the dose of ulipristal acetate is not recommended).

The Faculty of Sexual and Reproductive Healthcare (2020) provides a useful decision-making algorithm for the provision of emergency contraception. Side effects of oral emergency contraception can include irregular vaginal bleeding, headache, abdominal discomfort and nausea.

It is essential that any woman taking emergency contraception takes a pregnancy test 3 weeks after the last unprotected sexual intercourse as no method is 100% effective. This is particularly important if an ongoing contraceptive method is quick started, as this may lead to amenorrhoea.

Ongoing contraception

There are many different forms of contraception, some of which require specialist training to insert and remove. Long-acting reversible contraception such as intrauterine systems, intrauterine devices or implants are more effective forms of contraception as they are not user-dependent methods (sometimes called ‘fit and forget’). It may not be possible to have a detailed discussion about all the choices in an acute hospital setting but patients can be directed to websites to gain further information about all the contraceptive choices (eg <https://contraceptivechoices.org/>, <https://www.sexwise.org.uk/contraception>) and many patients could be offered an interim, bridging method of contraception so they are not at risk of pregnancy while awaiting further management. There are few medical contraindications to the progestogen-only pill (some of which are now available to buy over the counter as a pharmacy medicine), so this is likely to be a suitable bridging method for most patients. It

Table 1. Situations in which ulipristal acetate should be used with caution and therefore levonorgestrel would be more suitable

Patient with severe asthma controlled by glucocorticoids

Patient who is breastfeeding, as breastmilk needs to be discarded for a week after taking ulipristal acetate

Patient taking one of the following drugs, as the efficacy of ulipristal acetate may be reduced by:

- Progestogen-containing medications (eg hormonal contraceptives) taken in the 7 days before or 5 days following ulipristal acetate use
- Inducers of hepatic CYP450 enzymes
- Medications that increase gastric pH

can be used in individuals between menarche and the age of 55 years (when contraception is no longer required) and can be used as a temporary method or long-term contraception.

There are several types of progestogen-only pill, and the most widely used is the desogestrel progestogen-only pill. This works by suppressing ovulation as well as thickening cervical mucus and thinning the endometrial lining. If used correctly, it is more than 99% effective; in typical use it is about 91% effective. Effectiveness is not affected by body weight or body mass index but could be reduced by CYP450 enzyme-inducing drugs and for 28 days after stopping an enzyme-inducing medication (Faculty of Sexual and Reproductive Healthcare, 2022a,b).

The desogestrel progestogen-only pill should be taken at the same time of day, every day, to be fully effective. If a desogestrel progestogen-only pill is forgotten for more than 12 hours, it is counted as a missed pill and missed pill guidance should be followed (Faculty of Sexual and Reproductive Healthcare, 2022a,b). Patients should be warned that changes in bleeding patterns are common, especially in the first few months.

The desogestrel progestogen-only pill can be quick started at any point in the cycle, but if it is quick started outside of day one to five of the menstrual cycle, then extra protection with abstinence or use of condoms is required for 2 days. A pregnancy test should be taken after 3 weeks to exclude pregnancy if there was any unprotected sexual intercourse earlier in the cycle.

Contraindications to all progestogen-only pills are: ischaemic heart disease or stroke (including transient ischaemic attack) that occurred while taking the progestogen-only pill; current or past breast cancer; severe decompensated cirrhosis; benign hepatocellular adenoma or malignant hepatocellular carcinoma, with additional contraindications for the drospirenone progestogen-only pill (Faculty of Sexual and Reproductive Healthcare, 2022a,b).

Advise patients to consider using barrier methods such as condoms to protect against sexually transmitted infections.

Signposting the patient to appropriate resources

For onward management of contraception, guide the patient towards online resources, local sexual health services or their GP, with whom they should be able to have an in-depth conversation about what contraception aligns with their reproductive goals. Long-acting reversible contraceptives including intrauterine devices (intrauterine device/intrauterine systems) and the subdermal implant are the most effective methods. They have the advantage of not being user dependent for compliance and therefore are extremely effective. These are the most cost-effective reversible method of contraception (Mavranouzouli, 2008; Stoddard et al, 2011). <https://contraceptivechoices.org/> and <https://www.sexwise.org.uk/> contraception are informative and easy to use websites which can help to inform women about their options (Stephenson et al, 2020).

Other points to be aware of regarding contraception

There are few studies specifically studying drug interactions with hormonal contraception, so information is extrapolated from other studies. The Faculty of Sexual and Reproductive Healthcare (2022a) has guidelines on contraception and drug interactions, and the Faculty of Sexual and Reproductive Healthcare (2019) UKMEC table can be used to assess the safety of contraception in relation to different conditions.

What is considered a 'missed pill' varies between oral contraceptives – make sure you look up the correct pill type when considering whether missed pill rules apply.

Consider if there are any safeguarding issues that need further investigation and if the patient may need to be tested for sexually transmitted infections.

Conclusions

Pregnancy assessment can be easily overlooked, but has the potential to be life-changing for the patient if done right. Consider the need for emergency contraception. If the patient wants to start ongoing contraception and there are no contraindications, the progestogen-only pill is easy to offer as a bridging method while awaiting further discussion about all contraceptive choices.

Key points

- Do not forget to ask about contraception in women of childbearing age.
- Consider whether a patient may need emergency contraception.
- The Faculty of Sexual and Reproductive Health website has lots of useful resources to refer to regarding emergency and regular contraception.
- If starting a patient on contraception is appropriate, the desogestrel progestogen-only pill has few contraindications (remember to check for drug interactions).
- Remember to signpost patients to appropriate sexual health services or their GP for further assessment and follow up of their contraception.

Curriculum checklist

This article addresses the following requirements from the general internal medicine training curriculum.

- Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement
- Providing continuity of care to medical inpatients, including management of comorbidities and cognitive impairment
- Managing medical problems in patients in other specialties and special cases.

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Conflicts of interest

The authors declare that there are no conflicts of interest.

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