

#### **EMERGENCY CONTRACEPTION**

#### What's New

- Decision-making algorithms introduced to aid decision making.
- The copper intra-uterine device (Cu-IUD) remains the most effective method of emergency contraception (EC) and should be offered to ALL women.
- Both oral methods of EC can be used if a woman has had unprotected intercourse (UPSI) earlier in the same cycle.
- If oral EC is chosen and it is between 96-120 hrs since UPSI, ulipristal(UPA) EC should be considered as first-line before levonorgestrel (LNG) EC.
- Both oral methods are likely to be ineffective if taken >120 hrs after last UPSI or after ovulation has taken place.
- The effectiveness of levonorgestrel emergency contraception (LNG-EC) could be reduced if a woman has a BMI >26 or weight >70kg.
- Prior to administering oral EC all women should have a documented weight and BMI.

## **Indications For Use**

EC is appropriate for women who do not wish to conceive following:

- Unprotected sexual intercourse (UPSI)
- Failure or potential failure of a contraceptive method (see Table 1 in Appendix)
- UPSI following Day 21 after childbirth (unless the criteria for lactational amenorrhoea are met)
- UPSI from Day 5 after abortion, miscarriage, ectopic pregnancy or uterine evacuation for gestational trophoblastic disease (GTD)

# Mode of action/efficacy of available methods

# • Cu-IUD

- o Inhibition of fertilisation by its toxic effect on sperm and ova. Adversely affect the motility and viability of sperm and the viability and transport of ova.
- If fertilisation does occur, the local endometrial inflammatory reaction prevents implantation.
- o Inserted up to:
  - 5 days following first UPSI since LMP
    - 5 days after the earliest likely ovulation date
- This is the most effective method of EC. Failure rate <0.1%.

#### UPA-EC (30mg)

- Selective progesterone receptor modulator.
- Acts by delaying ovulation for at least 5 days, until sperm from the UPSI for which EC was taken are no longer viable.
- o It delays ovulation even after the start of the luteinising hormone (LH) surge whereas LNG-EC is no longer effective after the start of the LH surge.
- Not effective after ovulation.



- Importantly, after UPA-EC, the majority of women will go on to ovulate later in the cycle and are therefore at risk of pregnancy from subsequent UPSI.
- It is essential that women are made aware of this risk and advised regarding ongoing contraception.
- Efficacy is dependent on timing of UPSI in relation to ovulation.
   The overall pregnancy rate after administration of UPA-EC has is about 1-2%.

# • LNG-EC (1.5mg)

- o Inhibits ovulation, delaying or preventing follicular rupture and causing luteal dysfunction.
- Needs to be taken prior to the start of the luteal hormone (LH) surge, LNG inhibits ovulation for the next 5 days, until sperm from the UPSI for which it was taken are no longer viable.
- o UPA-EC can delay ovulation even after the start of LH surge.
- After taking LNG-EC, women who ovulate later in the cycle are at risk of pregnancy from further UPSI. It is essential that women are made aware of this risk and advised regarding ongoing contraception.
- Efficacy is dependent on timing of UPSI in relation to ovulation.
   LNG-EC within 72 hours of a single episode of UPSI is thought to be 85% effective.

## Client Assessment and Management

The risk of pregnancy for an individual woman after UPSI is difficult to estimate because it depends on a number of variable factors including the fertility of both partners, the timing and number of episodes of UPSI, cycle length and variability, and whether contraception has not been used or has been used incorrectly.

See individual sections below. For further information, please refer to the FSRH CEU Guideline on Emergency Contraception.

- 1. Establish whether sex was consensual. If not, see "Sexual Assault" protocol
- 2. If the client is under 16 years, complete the local Young Peoples proforma
- 3. Obtain a sexual and reproductive health history and offer screening for sexually transmitted infections (STI) if appropriate
- 4. Obtain a medical and drug history to exclude contra-indications to EC
- 5. If oral EC is chosen, check weight and BMI
- 6. Offer EC based on Algorithms 1 and 2 in the Appendix
- 7. Discuss future contraception, quick starting contraception and safer sex/infection risks
- 8. Arrange future appointments for STI testing, pregnancy testing and ongoing contraception as appropriate following the consultation.
- 9. Record consultation notes and any prescriptions on NaSH



#### 1. Sexual Assault

- If a woman opts for forensic examination and chooses Cu-IUD as EC, clinical
  examination and insertion should be deferred until after this examination. Antibiotic cover
  needs to be considered.
- If a woman elects to have a Cu-IUD as EC, prescribe oral EC if appropriate in case Cu-IUD fitting is delayed or she changes her mind.
- Please ensure that the client is offered EC/STI testing if her care is transferred to Forensic Medical Examiners.

## 2. Young Peoples Proforma

- Please follow local guidance for this form. Some units inform the Young People (YP)
   Team of all attendances < 16 yrs.</li>
- A young person's risk assessment should be completed on NaSH.
- All methods of EC, including Cu-IUD, should be offered to adolescent women.

## 3. STI Testing

- STI risk assessment should be made and testing offered as appropriate, taking window periods into consideration.
- Antibiotic cover may be considered for Cu-IUD insertion if there is a significant risk of STI that could be associated with ascending pelvic infection.

## 4. Medical and Drug History

# Enzyme Inducers

- The effectiveness of oral EC may be reduced in those taking drugs which are enzyme inducers and Cu-IUD should be recommended to these women.
- If oral EC is chosen, 3mg LNG should be prescribed. There is no evidence to support an increased dose of UPA-EC.

## Progestogen-containing drugs

 Effectiveness of UPA-EC may also be reduced if any progestogen-containing drug has been taken in the 7 days prior to EC use or in the 5 days after taking EC.

This must also be taken in to consideration if quick starting a hormonal method of contraception following EC. Please see the Quick Starting protocol.

## · Severe asthma

 UPA-EC is not suitable for any woman with asthma controlled by oral glucocorticoids.

### Breast feeding

Higher rate of uterine perforation during insertion Cu-IUD in breastfeeding women.

- Breastfeeding women should be advised not to breastfeed and to express and discard milk for a week after they have taken UPA-EC.
- LNG-EC has not been shown to effect breast milk.



## Previous EC use in cycle

- If already taken UPA-EC once or more in a cycle, can offer UPA-EC again after further UPSI in the same cycle.
- If already taken LNG-EC once or more in a cycle, can offer LNG-EC again after further UPSI in the same cycle.
- If a woman has already taken UPA-EC, LNG-EC should not be taken in the following 5 days.
- If a woman has already taken LNG-EC, UPA-EC could theoretically be less effective if taken in the following 7 days.

### 5. Weight and BMI

• The effectiveness of the Cu-IUD is not known to be affected by weight or BMI. It is possible that higher weight >70 kg or BMI >26 could reduce the effectiveness of oral EC, particularly LNG-EC.

## 6. Decision-making algorithms

These aid the decision to which method of EC is the most appropriate. However, the final choice must take into consideration client choice and whether there is quick-starting of an ongoing contraceptive method. See Appendix.

### a. Cu-IUD EC

- This is the most effective method and the ONLY one effective after ovulation.
- Contraindications are the same as for any routine Cu-IUD insertion.
- It also provides ongoing contraception.

## b. UPA-EC

- This has been shown to be effective up to 120 hours after UPSI and more effective than LNG-EC at ALL times.
- It can be given more than once in a cycle.
   However if UPA-EC has already been given in the cycle LNG-EC should not be given in the following 5 days.
- If UPSI has occurred in the 5 days prior to ovulation, this should be the first line oral EC if a Cu-IUD has been declined.
- Women must wait 5 days after UPA-EC before starting ongoing hormonal contraception.
- During this period condoms or abstinence must be used reliably. See quick-start protocol for more information.

#### c. LNG-EC

- This is licensed for up to 72 hours following UPSI. Evidence suggests it is ineffective after 96 hours.
- It can be given more than once in a cycle, but if further EC is required there is a theoretical reduced effectiveness of UPA-EC if given in the following 7 days.
- Hormonal contraception can be started immediately after LNG-EC, making this
  the more suitable oral EC if there is likely to be further UPSI in the cycle due to a
  delay in commencing an ongoing method. See Quick Start Protocol for more
  information.
- 7. Discuss future contraception, quick starting contraception and safer sex/infection risks.



- **8.** Arrange future appointments for STI testing, pregnancy testing and ongoing contraception as appropriate following the consultation.
  - o Advise women that if they vomit within 3 hours of taking oral EC, they should return for a repeat prescription.
  - Advice women to take a pregnancy test 21 days following last UPSI to assess their pregnancy status.
- Record consultation notes and any prescriptions on NaSH, including whether EC was off license.



# Appendix

Table 1: Indications for emergency contraception following potential failure of hormonal and intrauterine methods of contraception (FSRH CEU EC Guideline)

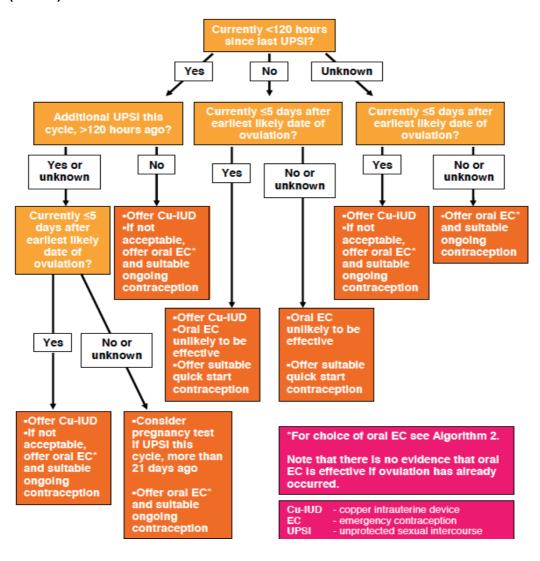
Method	Situation leading to possible contraceptive failure	Indication for EC
Hormonal methods of contraception	Failure to use additional contraceptive precautions when starting the method	UPSI or barrier failure during time that additional precautions required as indicated within CEU guidance.
Combined hormonal transdermal patch	Patch detachment/ring removal for >48 hours	EC is indicated if patch detachment or ring removal occurs in Week 1 and there has been UPSI or barrier failure during the hormone-free interval (HFI) or Week 1.
or combined hormonal vaginal ring	Extension of patch-free or ring-free interval by >48 hours	If the HFI is extended, a Cu-IUD can be offered up to 13 days after the start of the HFI assuming previous perfect use.  If CHC has been used in the 7 days prior to EC, the effectiveness of UPA-EC could theoretically be reduced. Consider use of LNG-EC.
Combined oral contraceptive pill (monophasic pill containing ethinylestradiol)	Missed pills (if two or more active pills are missed)	EC is indicated if the pills are missed in Week 1 and there has been UPSI or barrier failure during the pill-free interval or Week 1.  If the pill-free interval is extended (this includes missing pills in Week 1), a Cu-IUD can be offered up to 13 days after the start of the HFI assuming previous perfect use.  If COC has been taken in the 7 days prior to EC, the effectiveness of UPA-EC could theoretically be reduced. Consider use of LNG-EC.
Combined hormonal contraception, progestogen- only pill and progestogen- only implant	Failure to use additional contraceptive precautions whilst using liver enzyme inducing drugs or in the 28 days after use	EC is indicated if there is UPSI or barrier failure during, or in the 28 days following, use of liver enzyme-inducing drugs.  Offer a Cu-IUD (unaffected by liver enzyme-inducing drugs) or a double dose (3 mg) of LNG-EC. UPA-EC is not recommended with liver enzyme-inducing drugs.
Progestogen- only pill	Late or missed pill (>27 hours since last traditional POP or >36 hours since last desogestrel-only pill)	EC is indicated if a pill is late or missed and there has been UPSI or barrier failure before efficacy has been re-established (i.e. 48 hours after restarting).  Timing of ovulation after missed pills cannot be accurately predicted.  A Cu-IUD is therefore only recommended up to 5 days after the first UPSI



		following a missed POP.
		If POP has been taken in the 7 days prior to EC, the effectiveness of UPA-EC could theoretically be reduced. Consider use of LNG-EC.
Progestogen- only injectable		EC is indicated if there has been UPSI or barrier failure:  • >14 weeks after the last injection • within the first 7 days after late injection  Timing of ovulation after expiry of the progestogen only injectable is extremely variable. A Cu-IUD is only recommended up to 5 days after the first UPSI that takes place >14 weeks after the last DMPA injection.  The effectiveness of UPA-EC could theoretically be reduced by residual circulating progestogen. Consider use of LNG-EC.
Progestogen- only implant	Expired implant	Low risk of pregnancy in 4 <sup>th</sup> year PO-Implant. Effectiveness of UPA-EC unknown. See FSRH CEU EC Guideline.
Intrauterine contraception (Cu-IUD and LNGIUS)	Removal without immediate replacement; partial or complete expulsion; threads missing and IUC location unknown	If UPSI has occurred in the 5 days (the duration of sperm viability in the upper genital tract) prior to removal, perforation, partial or complete expulsion.  Depending on the timing of UPSI and time since IUD known to be correctly placed, it may be appropriate to fit another Cu-IUD for EC.  If missing LNG-IUS threads and unable to confirm placement with a scan, consider LNG-EC due to reduction in effectiveness of UPA-EC due to progestogens.



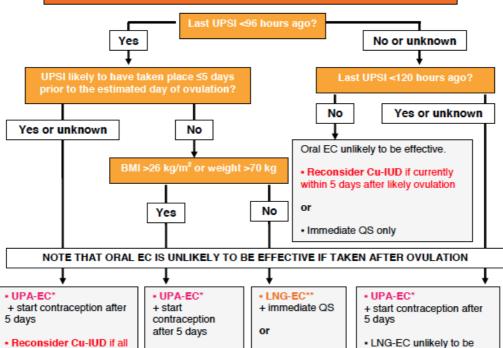
Algorithm 1: Decision-making Algorithm for Emergency Contraception (EC): Copper Intrauterine Device (Cu-IUD) vs Oral EC<sup>1</sup>





# Algorithm 2: Decision-making Algorithm for Oral Emergency Contraception (EC): Levonorgestrel EC (LNG-EC) vs Ulipristal Acetate EC (UPA-EC)<sup>1</sup>

The Cu-IUD is the most effective form of EC. If criteria for insertion of a Cu-IUD are not met or a Cu-IUD is not acceptable to a woman, consider oral EC.



- UPSI within 120 hours or if
- currently within 5 days after likely ovulation
- If UPA not suitable: LNG-EC
- + immediate QS
- Double dose (3 mg) LNG-EC
- + immediate QS
- UPA-EC\*
- + start contraception after 5 days
- · LNG-EC unlikely to be effective
- Reconsider Cu-IUD if all UPSI within 120 hours or if currently within 5 days after likely ovulation

\*\*Consider double-dose (3 mg) LNG if BMI >26 kg/m² or weight >70 kg (Section 9.2) or if taking an enzyme inducer (Section 10.1)

- \*UPA could be less effective if:
- a woman is taking an enzyme inducer (see Section 10.1)
- a woman has recently taken a progestogen (see Section 10.3)

UPA is not recommended for a woman who has severe asthma managed with oral glucocorticoids (Section 11.2)

- Cu-IUD copper intrauterine device
- EC emergency contraception
- LNG-EC levonorgestrel 1.5 mg
  QS quick start of suitable hormonal
  - contraception
- UPA-EC ulipristal acetate 30 mg
  UPSI unprotected sexual intercourse



# **Appendix for Sandyford Staff**

### Sandyford Local Protocol for EllaOne

In addition to the inclusions and exclusions previously mentioned, Sandyford nursing staff can supply one oral Ulipristal Acetate (ellaOne® Tablet 30 milligram (mg) for prevention of unplanned pregnancy to be taken in clinic

### Inclusion Criteria:

- patients aged 13 years or over.
- unprotected sexual intercourse/non-hormonal contraception failure up to 120 hours ago
- patient has vomited within 3 hours of taking a dose of ulipristal acetate for emergency hormonal contraception but presents up to 120 hours after unprotected sex/non-hormonal contraception failure

### Additional Exclusion Criteria:

- · Unexplained vaginal bleeding
- Severe liver disease
- Hypersensitivity to ulipristal acetate or any of the tablet ingredients/ excipients.
- A rare hereditary problem of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption as ellaone<sup>®</sup> contains lactose.
- Patients taking medication that interferes with gastric PH, Proton pump inhibitors, Omeprazole, Lansoprazole, Esomepreazole, antacids.
- Patients taking H2 receptor antagonists, Cimetidine, Ranitidine

Please record on Nash as supplied and administered without using the PGD drop down box.



## **Missed Pill Advice**

If one pill has been missed (more than 24 hours and up to 48 hours late)

If two or more pills have been missed (more than 48 hours late).

# **Continuing Contraceptive Cover**

- The missed pill should be taken as soon as it is remembered
- The remaining pills should be continued at the usual time

## Minimising the risk of pregnancy

Emergency contraception (EC) is not usually required but may need to be considered if pills have been missed earlier in the packet or in the last week of the previous packet

# **Continuing Contraceptive Cover**

- The most recent missed pill should be taken as soon as possible
- The remaining pills should be continued at the usual time
- Condoms should be used or sex avoided until seven consecutive active pills have been taken. This advice may be overcautious in the second and third weeks, but the advice is a backup in the event that further pills are missed

## Minimising the risk of pregnancy

If pills are missed in the first week (Pills 1-7)

EC should be considered if unprotected sex occurred in the pill-free interval or in the first week of pill-taking

If pills are missed in the second week (Pills 8-14)

No indication for EC if the pills in the preceding 7 days have been taken consistently and correctly (assuming the pills thereafter are taken correctly and additional contraceptive precautions are used). If pills are missed in the third week (Pills 15-21)

OMIT THE PILL-FREE INTERVAL by finishing the pills in the current pack (or discarding any placebo tablets) and starting a new pack the next day



Sandyford Protocols

# References

1.	FSRH CEU Guideline Emergency Contraception. March 2017. Available from:
	www.fsrh.org/standards-and-guidance/current-clinical-guidance/emergency-contraception/