

## Emergency contraception

Tues 4<sup>th</sup> November 2014  
Engineers House  
Cindy Farmer

## Learning objectives

- Describe the 3 different methods of EC available in the UK
- Evaluate the most appropriate method of EC
- Quickstart ongoing contraception after oral EC

## Abbreviations used

- UPSI = unprotected sexual intercourse
- LMP = last menstrual period
- EC = emergency contraception
- EHC = emergency hormonal contraception
- IUD = intra-uterine device
- LNG = levonorgestrel
- UPA = ulipristal
- UKMEC = UK Medical eligibility criteria

## Sophie

- Sophie, 19, presents asking for emergency contraception.
- What do you need to know?

## What do you need to know?

- **When** did she have unprotected sex?
- Have there been **any other episodes** of UPSI?
- When was her **LMP**?

The answer to these questions will help you decide which form of EC is most appropriate

## Where are we now with EC?

- Copper IUD – ALWAYS the most effective
- Levonorgestrel(LNG) 1500mcg = Levonelle®
- Ulipristal (UPA) 30 mg =ellaOne®

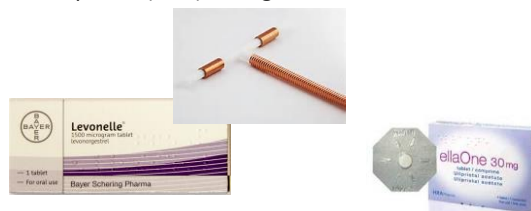
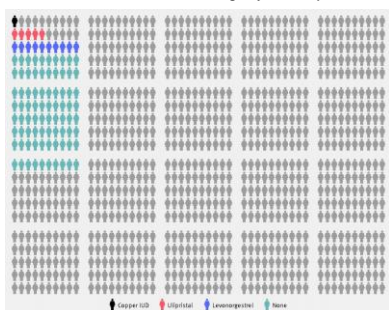


Fig 2 Comparative predicted estimates of the number of pregnancies expected if 1000 women used various forms of emergency contraception or nothing.



Prabakar I, and Webb A BMJ 2012;344:bmj.e1492

BMJ

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## When did she have unprotected sex?

- EC is available for episodes of UPSI occurring within the last 5 days (120 hours)
- **or** if the woman is within 5 days of the anticipated date of implantation\*

[http://www.fsrh.org/pdfs/FSRH\\_ECDecisionGuide.pdf](http://www.fsrh.org/pdfs/FSRH_ECDecisionGuide.pdf)

- It is too late to offer EC if requested >5 days (120 hours) since a woman's **most recent** episode of UPSI
- **and** after the anticipated date of implantation (i.e. > 5 days since the earliest expected date of ovulation (e.g. day 19 of a 28 day cycle)).

June 2014

## When was her LMP?

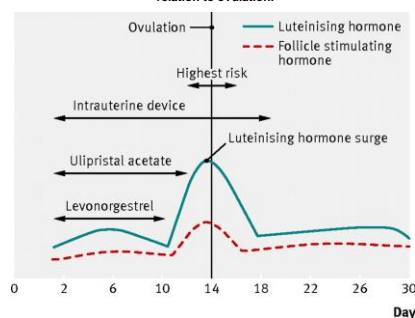
Need to know this for 2 reasons:

1. it can help you work out where she is in her cycle and her likely date of ovulation
  - she is most fertile in the 48 hour window before ovulation – ie highest risk of conceiving
  - Within this window UPA may be a preferred option
2. it will help you calculate when is anticipated date of implantation and thus the latest time in her cycle that an IUD may be fitted

## UPA EC

- The efficacy of UPA has been demonstrated up to 120 hours after UPSI and there is no apparent decline in efficacy within that time period
- If administered immediately before ovulation UPA has been shown to suppress growth of lead follicles.
- LNG has been shown to be no better than placebo at suppressing ovulation when given immediately prior to ovulation

Fig 1 Window of action of different emergency contraceptive methods in relation to ovulation.



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### Calculating the latest time that an IUD may be fitted

1. Take the shortest cycle length – eg if  $k=$  /28-30  
→ take 28
2. Subtract 14 from the shortest cycle length to give you the earliest predicted day of ovulation:  
 $28-14 = 14$
3. Add 5 to the predicted day of ovulation → this gives you the anticipated day of implantation :  
 $14+5 = \text{day } 19$
4. Thus day 19 is the latest time an IUD may be fitted in a woman with regular 28 day cycles

### Any other considerations?

1. Previous or recent EC use or hormonal contraception
2. Drug or medical history
3. Weight or BMI??

### 1. Previous or recent EC use

- An “LMP” is not a “LMP” if the woman is using hormonal contraception or has recently taken EHC
  - In these circumstances can only go by time since earliest UPSI
- The CEU does not currently support use of UPA:
  - more than once per cycle
  - if there has been another episode of UPSI outside the treatment window (>120 hours)
  - concomitantly with LNG

### 2. Relevant drug and medical history

#### LNG

- Double dose if taking liver-enzyme inducers or within 28/7 of stopping
- There are no UKMEC 3;4 for LNG EC

#### UPA

- Use not supported by CEU in women using
  - drugs that increase gastric pH (eg, H2 antagonist; PPI)
  - liver-enzyme inducers or for upto 28 days after stopping
- If Breast feeding, advise discard breast milk for 7 days after taking

### 3. Weight/BMI considerations

- Nov 2013 HRA Pharma released a statement on labelling of the LNG EC product Norlevo
  - “In clinical trials, contraceptive efficacy was reduced in women weighing 75 kg or more and levonorgestrel was not effective in women who weighed more than 80 kg.”
- Norlevo is marketed in Europe (not in UK).
- HRA Pharma also markets ulipristal acetate EC
- Change was based on data from further sub-group analysis of studies initially published in 2011.



- January 2014
- Review of ECs started
- “to assess whether increased bodyweight and BMI reduce the efficacy of these medicines in preventing pregnancy”

## Letter to HCP: July 2014

- Data was limited and inconclusive
- ...not robust enough to establish that there is a reduction in efficacy of emergency contraceptives with increase in weight or BMI.
- Emergency contraceptives remain suitable for all women regardless of body weight or BMI

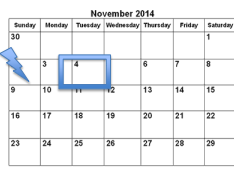
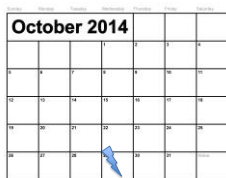


## CEU response – July 2014

- Should oral EC be restricted in women with a BMI of over 30kg/m<sup>2</sup>
  - No.
- Is UPA more effective than LNG in overweight women?
  - No published studies have compared the two directly.
  - It is recommended that the current statement on the impact of body weight in the product information for Norlevo® should be deleted.
- Should LNG-EC be limited in women over 75kg?
  - No. The EMA have decided that the evidence to support this recommendation is insufficient and have not enforced this restriction.
- Should women of heavier weight or BMI should be given a double dose oral EC?
  - No. There is no evidence to support this

When did Sophie last have UPSI and were there any earlier episodes?

- Sophie states that she last had sex late Saturday night at 1am and also last Weds night around 11pm



## Sophie

- Potential UPSI 2 days ago and 6 days ago
- If we do not have an accurate LMP – we cannot offer an IUD
  - Earliest UPSI was >120 hours ago
  - Too soon for PT to be reliably negative as <3 weeks since SI
- Cannot offer UPA
  - Earliest UPSI was > 120 hours ago
- Could give LNG
  - Would cover most recent UPSI 2 days ago
  - Will not work for UPSI 6 days ago
  - If conceives following that SI – LNG will not disrupt pregnancy

- But Sophie keeps a note of her periods using an app on her phone
- Her LMP was 22 Oct 2014

When was her LMP?

- LMP 22/10/2014
- She is day 14 of her cycle today
- She has regular 27 day cycles
- Predicted day of ovulation is 27-14= day13
- The latest time she can have an IUD fitted is
- (27-14)+ 5 → day 18 of her cycle



- If you do refer Sophie for IUD
  - Give LNG anyway
  - Perform STI risk assessment
  - If high risk offer chlamydia screening (NAATS)
  - Consider AB prophylaxis – eg 1g Azithromycin PO
    - IF <25 years
    - recent change in sexual partner
    - more than 2 partners in last 12 months
    - No consistent condom use

- But Sophie doesn't want an IUD
- So we are going to give her LNG to cover the UPSI 2 days ago
- What else would you do?

Quick-start contraception

- Start COC/POP/implant today
- Advise additional precautions for 7 days ( 2 days for POP)
- Pregnancy test in 3 weeks

[http://www.fsrh.org/pdfs/FSRH\\_ECDecisionGuide.pdf](http://www.fsrh.org/pdfs/FSRH_ECDecisionGuide.pdf)

- The decision to quick start contraception may influence a woman's choice of EC ...
- additional contraception is required for a longer period of time when quick starting a method after UPA.

Table: Number of days that additional precautions are required after oral EC

Method of contraception quick-started	After LNG	After UPA
CHC (except Qlaira and Dianette)	7	14 ( 7+7)
Qlaira	9	16 ( 9+7)
Dianette (quickstart NOT recommended)		
POP	2	9 (2+7)
Implant ( and DMPA)	7	14 (7+7)

Recap of learning objectives....

We have...

- Described the 3 different methods of EC available in the UK
- Evaluated the most appropriate method of EC
- Considered quick-starting contraception after EC