EMERGENCY CONTRACEPTION

FLAME LECTURE: 154B
BOTELHO 9/23/2015
Learning Objectives

- To understand emergency contraceptive mechanisms, products, regimens and access issues
- To describe Emergency Contraceptive options available for patients and dispel the myths surrounding them
- Prerequisites:
  - NONE
- See also – for closely related topics
  - FLAME LECTURE 154: ParaGard IUD
  - FLAME LECTURE 149: Combined Hormonal Contraceptives
Unintended Pregnancy Rates in US

INTENDED

51%  49%

UNINTENDED

22%  BIRTH

20%  ABORTION

7%  MISCARRIAGE

30% of American women have had an abortion. Improving access to LARCS and EMERGENCY CONTRACEPTION can reduce unintended pregnancy!
Types of Emergency Contraceptives

- **Copper IUD**
  - ParaGard

- **Ulipristal acetate (UPA) EC**
  - Ella

- **Progestin-Only EC**
  - Contain levonorgestrel only
  - Plan B and Next Choice

- **Combined EC – Yuzpe Method**
  - Contain estrogen and progestin
  - Any brand of OCP can be used, start within 72 hours of IC:
    - Take enough pills to total 0.5-0.6 mg levonorgestrel (or equivalent)
    - Repeat the dose in 12 hours
Common Misconceptions about EC

- EC is NOT only good for just the “morning after”
  - They may be taken up to 120 hours (5 days!) after unprotected intercourse
  - However, it is more effective the sooner after intercourse it is used
- EC includes more types than just a ‘morning after pill’
  - In fact, the copper IUD is the best option!
- EC will not interrupt an established pregnancy, thus EC do not cause abortions**
  - The oral forms DELAY ovulation which PREVENTS fertilization (if she was about to ovulate, it causes the egg to be released a few days later after the sperm are no longer alive)
  - Keep in mind we do not know exactly when a female is ovulating. Thus, when using a copper IUD as EC, it may work in two ways:
    - If fertilization has already occurred, the copper IUD creates an endometrial environment unsuitable for implantation of the fertilized egg, thus no implantation of the embryo leads to a normal period (**Some may consider this an abortion if it is believed that life begins at fertilization)
    - Furthermore, sperm are stored in crypts in the cervix for days. If the patient ovulates in the days after intercourse, the copper IUD also creates a toxic environment in the uterus that kills sperm that are swimming through on their way to the egg
- EC does NOT increase risk taking behavior
- EC is SAFE – even for women who should have contraindications to estrogen (i.e. those with liver disease, CVD, migraines, VTEs)
Copper IUD as EC

- THE MOST EFFECTIVE EMERGENCY CONTRACEPTIVE!
- WHO guidelines:
  - May be inserted up to Day #12 of menstrual cycle *(that is, 12 days after first day of full flow)* without restrictions
  - Or at any other time in the cycle if it is reasonably certain that she is not pregnant
- Because of difficulty in determining the day of ovulation, many protocols allow insertion up to **5 days** after unprotected intercourse
- Requires a practitioner to place, thus access is difficult!
- May be left in place for ongoing contraception for 10-12 years (See FLAME LECTURE 154: ParaGard IUD)
Ulipristal Acetate (UPA) EC aka *Ella*

- Second most effective form of EC, but the **most effective ORAL form**!
- Delays onset of menstruation by mean of 2.1-2.8 days
- **Selective progesterone receptor modulator**, though exact mechanism of action unknown
- Works up to 5 days after unprotected Intercourse, BUT the sooner the better!!
- Minimal side effects: headache, N/V, abdominal pain
- Not over the counter! ☹ Requires a prescription!

3-Richardson, 2012.
Progestin-only EC

- Third most effective type of EC
- Available OTC without a prescription to anyone 17+ years of age
  - Brand names are: Plan B & Next Choice
- Works up to 5 days after unprotected intercourse, BUT the sooner the better
- Possibly reduced effectiveness in patients with BMI >25
- Mild side effects: nausea, vomiting, spotting
Combined EC (Yuzpe Method)

- LEAST EFFECTIVE method
  - However, more effective the earlier it is taken
- Tend to have more side effects because of the estrogen: nausea, vomiting, spotting
- Dosing (minimum): 100 mcg estradiol + 0.5mg levonorgestrel
  - Any brand pill can be combined into the above dose
  - Look on Bedsider.org to find number of pills needed for any given brand to make it a sufficient dose
- Simple/Easy access if patient already on OCP and has them at home!
Doctor, I had a one-night stand last night! What are the chances I get pregnant?! 

- Without knowing when a female is ovulating, the one-time chance on any given day of getting pregnant is: **5-6%**
  - Copper IUD as EC: Less than 1%
  - UPA EC: **1.8-2.1%**
  - Progestin-only EC: **2.6-3.0%**
  - Combined EC: **4.8-6.2%**

- Not all pharmacies carry every type, so look it up before you go!
  - [www.not-2-late.org](http://www.not-2-late.org)
  - [http://bedsider.org/methods/emergency_contraception#details_tab](http://bedsider.org/methods/emergency_contraception#details_tab)

- And take a pregnancy test in **3 WEEKS** to find out, if you haven’t had your period!!!!

3-Richardson, 2012.
IMPORTANT LINKS / REFERENCES

▶ ACOG PRACTICE BULLETIN 69 - Emergency Contraception (May 2010)

1. Update on Emergency Contraception 2010
4. Glasier, A. Ulipristal acetate versus levonorgestrel for emergency contraception: a randomised non-inferiority trial and meta-analysis