



EMERGENCY CONTRACEPTION

FLAME LECTURE: 154B

BOTELHO 9/23/2015

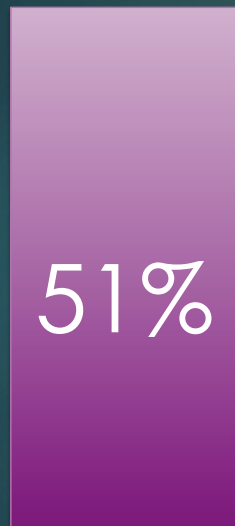
Learning Objectives



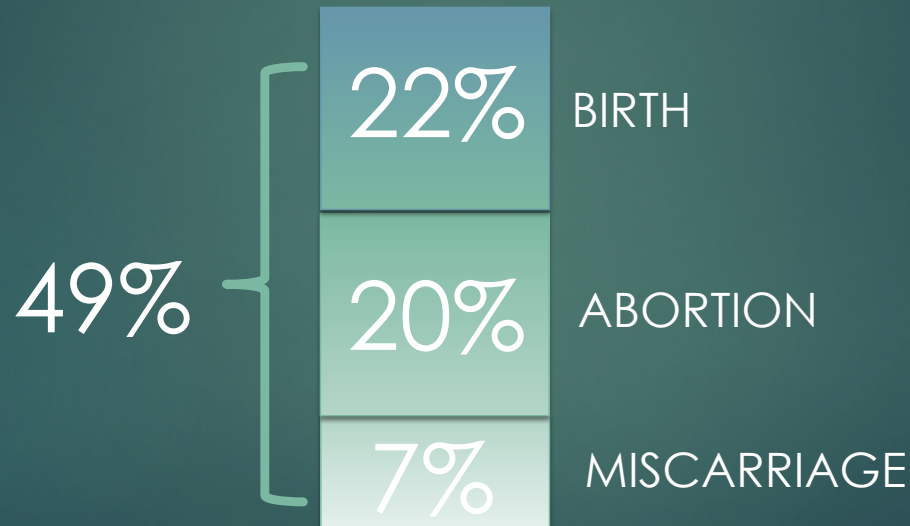
- ▶ To understand emergency contraceptive mechanisms, products, regimens and access issues
- ▶ To describe Emergency Contraceptive options available for patients and dispel the myths surrounding them
- ▶ Prerequisites:
 - ▶ NONE
- ▶ See also – for closely related topics
 - ▶ FLAME LECTURE 154: ParaGard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

Unintended Pregnancy Rates in US

INTENDED



UNINTENDED



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

1- Update on Emergency Contraception 2010
2- Finer LB, et al 1994 and 2001

Types of Emergency Contraceptives



MOST EFFECTIVE

LEAST EFFECTIVE

- ▶ 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!

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://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!!!!

IMPORTANT LINKS / REFERENCES

▶ [ACOG PRACTICE BULLETIN 69 - Emergency Contraception \(May 2010\)](#)

1. Update on Emergency Contraception 2010
2. Finer LB, Henshaw SK. Disparities in rates of unintended pregnancy in the United States, 1994 and 2001
3. Richardson, A. Ulipristal Acetate: Review of the Efficacy and Safety of a Newly Approved Agent for Emergency Contraception. Clinical therapeutics, 2012.
4. Glasier, A. Ulipristal acetate versus levonorgestrel for emergency contraception: a randomised non-inferiority trial and meta-analysis