CONTRACEPTIVE UPDATE FOR THE PRIMARY CARE PROVIDER

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Disclosure Statement

- I have no conflicts of interest to disclose.

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Objectives

1. Identify the available methods of contraception.
2. Explain the use of the Centers for Disease Control and Prevention's Medical Eligibility Criteria when prescribing contraceptive methods.
3. Discuss ways to manage the side effects of contraceptives.

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OBJECTIVE 1:

CONTRACEPTIVE METHODS

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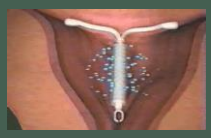
Types of Long-Acting Reversible Contraceptive Methods (LARCs)

Contraceptive implants

Intrauterine devices (IUDs)



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What are Intrauterine Devices (IUDs)?

- IUDs are T- shaped devices that are inserted into the uterus to prevent pregnancy.
- IUDs are as effective as sterilization but are reversible.

(Madden, 2019)

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Mechanism of Action

- **There are 2 types of IUDs: Hormonal and Non-hormonal IUDs.**

Hormonal

- Thicken cervical mucus
- Inhibit sperm movement
- Reduce sperm survival
- Thin uterine lining

Non-Hormonal

- Prevent sperm from reaching the egg and fertilizing it
- May prevent implantation

(Merigan, 2019; Bayer, 2019a; Bayer, 2019b; Bayer, 2019c; Cooper Surgical, 2019; Madden, 2019)

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Non-Hormonal IUD

- **Cu-IUD (Paragard):**
  - Non-hormonal
  - There is only one non-hormonal IUD available.
  - Approved for 10 years
  - 32 x 36 mm in size.
  - >99% effective
  - Patients will continue to have monthly periods.
    - Less bleeding and spotting than hormonal IUDs.
    - Does not cause amenorrhea.
    - Many women have longer and heavier menstrual cycles at first, but this may decrease by the first year.
  - Unlabeled use: Can be used for emergency contraception and then continued for up to 10 years.

(Cooper Surgical, 2019; Madden, 2019)

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Hormonal (LNG) IUDs

- **Mirena IUD:**
  - Contains 52 mg Levonorgestrel.
  - Approved for 5 years
  - 32 x 32 mm in size
  - >99% effective
  - Approved for treatment of heavy menstrual bleeding.
  - May reduce dysmenorrhea
  - 20-40% of women have amenorrhea after 1 year.

(Bayer, 2019a; Bayer, 2019b; Bayer, 2019c; Madden, 2019)

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Hormonal (LNG) IUDs

- **Liletta IUD:**
  - Contains 52 mg of Levonorgestrel
  - Approved for 6 years of use in October 2019
  - 32 x 32 mm in size
  - >99% effective
  - Same medication dosage as Mirena IUD.
  - Now available with a single-handed inserter.

(Allergan, 2019; Madden, 2019)

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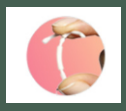
Hormonal IUDs

- **Skyla IUD:**
  - Contains 13.5 mg of Levonorgestrol
  - 28 x 30 mm in size
  - >99% effective
  - Approved for 3 years.
  - Approved for use in women regardless of childbearing status.
  - Fewer women (6-12%) have amenorrhea with Skyla due to lower dose of Levonorgestrol.



Bayer, 2019a; Bayer, 2019b; Bayer, 2019c; Madden, 2019)

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Hormonal (LNG) IUDs

- **Kyleena IUD:**
  - Contains 19.5 mg Levonorgestrel
  - 28 x 30 mm in size
  - >98.5% effective
  - Approved for 5 years
  - Bleeding and spotting may increase for 3-6 months and stay irregular.
  - Over time, periods may be shorter, lighter or stop.
  - 12 to 20% of women have amenorrhea with this IUD.

Bayer, 2019a; Bayer, 2019b; Bayer, 2019c; Madden, 2019)

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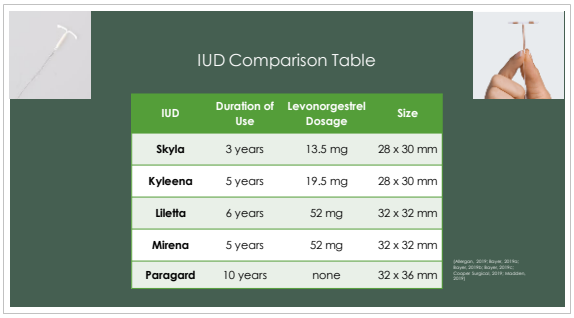
IUD Comparison Table
IUD
Duration of Use
Levonorgestrel Dosage
Size
Skyla
3 years
13.5 mg
28 x 30 mm
Kyleena
5 years
19.5 mg
28 x 30 mm
Liletta
6 years
52 mg
32 x 32 mm
Mirena
5 years
52 mg
32 x 32 mm
Paragard
10 years
none
32 x 36 mm

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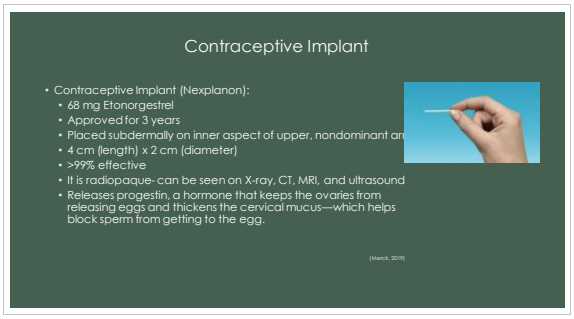
Contraceptive Implant
• Contraceptive Implant (Nexplanon):
• 68 mg Etonorgestrel
• Approved for 3 years
• Placed subdermally on inner aspect of upper, nondominant ar
• 4 cm (length) x 2 cm (diameter)
• >99% effective
• It is radiopaque- can be seen on X-ray, CT, MRI, and ultrasound
• Releases progestin, a hormone that keeps the ovaries from releasing eggs and thickens the cervical mucus—which helps block sperm from getting to the egg.
(Merck, 2019)

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Contraceptive Implant
• Not studied in women who were >130% of their ideal body weight. Lack of data on effectiveness in overweight women
• The most common side effects were menstrual changes, especially irregular bleeding.
• Half of women with irregular bleeding during the first 3 months will improve over time.
• 6-12% of women have weight gain with the implant. Most women do not have implant removed due to weight gain.
• There is only one contraceptive implant available.
(Merck, 2019)

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Sterilization

- Permanent, safe, and highly effective
- Some patients may regret sterilization so counseling is very important.
- Both types are over 99% effective
  - Tubal Ligation
  - Vasectomy

(Brazhen, 2019; Viera, 2019)

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Depo-Provera (DMPA)

- DMPA is available in two formulations:
  - 150 mg/1 mL for intramuscular injection (available as a generic) &
  - 104 mg/0.65 mL for subcutaneous injection.
- Either one can be given every 3 months (13 weeks)
- Around 94% effective at preventing pregnancy
- Contains progestin, a hormone that prevents the ovaries from releasing eggs. It also thickens the cervical mucus, which helps block sperm from getting to the egg.
- Most common side effects are irregular bleeding and increased appetite, leading to weight gain.

(Kounts, 2019a)

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DMPA

- Who can use DMPA?
  - Can be used by all ages of women, from teens up to women in their mid-50s up until menopause.
  - May reduce some vasomotor symptoms in perimenopausal women.

(Kounts, 2019a)

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DMPA

- FDA Black Box Warning issued in 2004:
  - "Women who use DMPA may lose significant bone mineral density. Bone loss is greater with increasing duration of use and may not be completely reversible."
- American College of Obstetricians and Gynecologists:
  - "Evidence suggests that recovery of BMD occurs after discontinuation of DMPA. The effect of DMPA on BMD and potential fracture risk should not prevent practitioners from prescribing DMPA or continuing use beyond 2 years."

(ACOG, 2014; Kounitz, 2019a)

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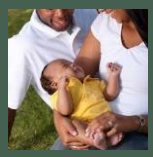
DMPA

- Return to Fertility
  - Half of women who desire pregnancy will be pregnant within 10 months after their last DMPA injection.
  - However, in a small percent of women, fertility does not return until 18 months after the last injection. Important to counsel women about this possibility.



(Kounitz, 2019a)

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Progestin-Only Pills (POPs)

- Unlike the combined pill, the progestin-only pill (sometimes called the mini-pill) only has one hormone, progestin, instead of both estrogen and progestin.
- It is taken at the same time each day to be most effective.
- It may be a good option for women who can't take estrogen.
- Also, it is safe for women who are breast-feeding.
- Thicken cervical mucus to inhibit sperm migration, suppresses ovulation, thin endometrium, and slow movement of the egg through the fallopian tubes.
- Around 91% effective.
- Usually cause lighter bleeding overall, but can also cause spotting.

(Kounitz, 2019a)

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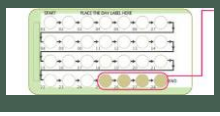
New POP

- Up until 2019, the only progestin-only oral contraceptive pill (POP) available in the United States contained norethindrone.
- As of 2019, drospirenone is available in a package containing 24 tablets of 4 mg drospirenone and four inert tablets (brand name Slynd).
- Patients at risk for hyperkalemia should use drospirenone with caution.



(Kounitz, 2019b)

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Combined Oral Contraceptives (COCs)

- Combined oral contraceptives contain the hormones estrogen and progestin.
- A pill is taken at the same time each day.
- COCs suppress ovulation by inhibiting the gonadotropin-releasing hormone (GnRH), luteinizing hormone (LH), follicle-stimulating hormone (FSH) and the mid-cycle LH surge.
- The hormones also thicken the cervical mucus, decrease tubal mobility, and make the endometrium less suitable for implantation.
- Around 93% effective
- Most common side effects are sore breasts, nausea, & spotting.

(Allen, 2019)

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Formulations of Combined Oral Contraceptives

- 28 day combination OC
  - Monophasic
  - Multiphasic
  - There are 21/7 or 24/4 regimens with last 4 or 7 days of pills as placebo pills
  - Some evidence indicates that the 24/4 regimens may be more effective in obese women
- Extended Cycle Pills
  - Placebo pills are approximately every 3 months (i.e. 84/7 regimen)
  - Extended cycle pills may have more unpredictable bleeding or spotting especially first 3 to 6 months.
- Estrogen dosage ranges from 20 mcg to 50 mcg. Most pills prescribed are 20 to 35 mcg.

(Allen, 2019)

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Contraceptive Patch

- Worn on the lower abdomen, buttocks, or upper body (not on the breasts).
- 35 mcg of ethinyl estradiol (EE) and 150 mcg norelgestromin are released daily.
- The average overall EE concentration ("area under the curve") in patch users is 60 percent higher than in women who use a 35-mcg pill. However, the peak estrogen concentrations are 25 percent lower than in pill users.
- Increased risk of venous thromboembolic events with the patch.

(Burkman, 2019)

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Contraceptive Patch

- The patient puts on a new patch once a week for three weeks. During the fourth week, the patient does not wear a patch. Avoid continuous use of patch due to risk of DVT.
- Thickens the cervical mucus, which helps to block sperm from getting to the egg.
- Around 99% effective
- Nausea, irregular bleeding, sore breasts are most common side effects.

(Burkman, 2019)

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Monthly Vaginal Ring

- The ring releases the hormones progestin and estrogen.
- The etonogestrel/ethinyl estradiol (ENG/EE) ring releases 20 mcg/day of ENG and 15 mcg/day of EE over 21 days.
- The patient places the ring inside her vagina.
- It is worn for three weeks, then taken out for a week. Then a new ring is inserted.
- Off label use to use ring continuously.
- Release hormones that keep the ovaries from releasing eggs. The hormones also thicken the cervical mucus, which helps to block sperm from getting to the egg.
- Around 91% effective
- Most common side effects are irregular bleeding, sore breasts, and nausea.

(Kerns & Dorney, 2019)

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Yearly Vaginal Ring

- Annovera is a ring containing segesterone acetate/ethinyl estradiol (SA/EE) that lasts up to a year.
- Annovera releases approximately 150 mcg/day of SA and 13 mcg/day of EE over the 21-day use period.
- Does not require refrigeration.
- Patient inserts Annovera in the vagina, leaves in place for 21 days, removes it for 7 days, then reinserts it.
- Around 91% effective

(Kerns & Dorney, 2019)

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Male Condoms

- A male condom keeps sperm from getting into a woman's body.
- Latex condoms help prevent pregnancy, and HIV and other STDs, as do the newer synthetic condoms.
- About 87% effective
- Important to counsel patients to use condoms along with a birth control method.

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Internal Condoms

- Worn by the woman, the internal condom helps keeps sperm from getting into her body.
- The most common female condom today is FC2. It is a soft, loose-fitting nitrile sheath or pouch with two flexible rings.
- It is packaged with a lubricant and is available at drug stores.
- Around 79% effective
- May help prevent STDs.

(Hoke et al., 2019)

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Spermicides

- Spermicides contain the active ingredient nonoxynol-9 (N-9) and provide contraception by immobilizing sperm.
- Spermicides come in foams, gels, creams, films, or suppositories.
- Can use a spermicide in addition to barrier methods, such as a male condom, diaphragm, or cervical cap. They can be purchased at drug stores.
- About 80% effective

(Kurtz, 2019)

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2 Types of Emergency Contraception

Copper IUD

- Women can have the copper T IUD inserted within five days of unprotected sex. Note: This is an unlabeled use of the Copper IUD.
- Copper IUD is over 99% effective if inserted within 5 days of unprotected sex.

Oral Emergency Contraception

- Women can take emergency contraceptive pills up to 5 days after unprotected sex.
- The sooner the pills are taken, the better they will work.

(Kurtz, 2019)

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Oral Emergency Contraception (EC)

- Oral emergency contraception decreases the risk of pregnancy after intercourse but before the a pregnancy is established.
- Does not cause an abortion.
- Emergency contraception can be used after no birth control was used during sex, or if the birth control method failed, such as if a condom broke.
- Not meant to be a regular form of contraception.
- May be less effective in overweight and obese women.

(Kurtz, 2019)

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Types of Emergency Contraceptive Pills (EC)

- Ulipristal acetate (UPA) [ex. ella, ellaOne] is a selective progestin receptor modulator that at a dose of 30 mg can be used up to 120 hours (5 days) after unprotected sex.
  - Most Effective
  - Requires a prescription
  - Avoid using contraception containing progestin for 5 days after taking UPA. Progestin may interfered with effect of UPA.

(Turok, 2019)

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Types of Emergency Contraceptive Pills (EC)

- Levonorgestrel (LNG) [Plan B]– Oral LNG 1.5 mg is licensed for use up to 72 hours, has been used off-label up to 120 hours after unprotected sex. Note: it may be less effective after 72 hours.
  - Less effective
  - Available over the counter
  - May begin contraceptive method at time of giving LNG.

(Turok, 2019)

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Fertility Awareness Methods

- A woman's fertility pattern is the number of days in the month when she is fertile, days when she is infertile, and days when fertility is unlikely, but possible.
- If a woman does not want to get pregnant, she should not have sex on the days she is fertile or she can use a barrier method of birth control on those days.
- Failure rates vary across these methods.

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Lactational Amenorrhea Methods (LAM)

- For women who have recently had a baby and are breastfeeding, the Lactational Amenorrhea Method (LAM) can be used as birth control when 3 conditions are met:
  - Amenorrhea (not having any menstrual periods after delivering a baby)
  - Fully or nearly fully breastfeeding
  - Less than 6 months after delivering a baby.
- Infant suckling results in a reduction in the secretion of gonadotropin-releasing hormone (GnRH) and luteinizing hormone (LH), which in turn suppresses ovarian activity
- LAM is a temporary method of birth control.
- Another birth control method must be used when any of the three conditions are not met.
- Approximately 92.5% effective

(Gonakkar & Moody, 2019)

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OBJECTIVE 2:

MEDICAL ELIGIBILITY CRITERIA

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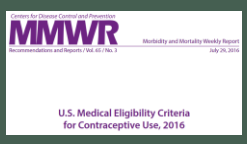
What is the US MEC?

- A group of criteria intended to assist health care providers when counseling patients on their choice of contraception.
- The US MEC provides guidance on whether patients with particular medical conditions or physical characteristics can safely use certain methods of birth control.



(CDC, 2016a)

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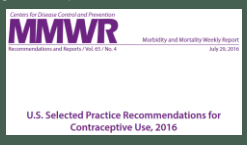
US SPR

- The US SPR provides guidance on:
  - How contraceptive methods can be used
  - How to remove unnecessary barriers for patients in accessing and successfully using contraception.



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MEC: 4 Categories

Categories of medical eligibility criteria for contraceptive use

1 = A condition for which there is no restriction for the use of the contraceptive method.	2 = A condition for which the advantages of using the method generally outweigh the theoretical or proven risks.
3 = A condition for which the theoretical or proven risks usually outweigh the advantages of using the method.	4 = A condition that represents an unacceptable health risk if the contraceptive method is used.

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Category 1

1 = A condition for which there is **no restriction** for the use of the contraceptive method.

Green light! Ok to use!

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Category 2

2 = A condition for which the **advantages of using the method generally outweigh** the theoretical or proven risks.

Yellow light! Probably ok!

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Category 3

3 = A condition for which the theoretical or proven **risks usually outweigh the advantages** of using the method.

Yellow light! Likely should not use!

44

Category 4

4 = A condition that represents an **unacceptable** health risk if the contraceptive method is used.

Red Light! Stop- Do not use!

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Health Conditions the US MEC Addresses

- Hypertension
- Diabetes
- Age
- Breast-feeding status
- Epilepsy
- Migraine headaches
- Smoking

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Accessing the MEC

- Free App for iPhone and Android
- US MEC Chart
- CDC website
  - https://www.cdc.gov/reproductivehealth/contraception/usmec.htm

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Case Study
Rosa

- Rosa is a 25 year old female who was diagnosed with Protein S deficiency, which increases her risk for a deep vein thrombosis (DVT).
- She wants to know what methods are "safe" for her to take.

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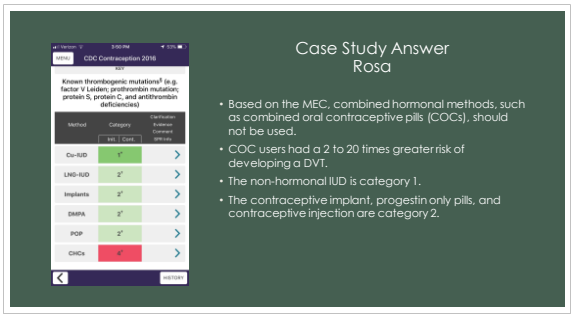

Case Study Answer
Rosa

- Based on the MEC, combined hormonal methods, such as combined oral contraceptive pills (COCs), should not be used.
- COC users had a 2 to 20 times greater risk of developing a DVT.
- The non-hormonal IUD is category 1.
- The contraceptive implant, progestin only pills, and contraceptive injection are category 2.

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Case Study
Stacey

- Stacey is a 26 year old female who wants a birth control that is effective but will not make her headaches worse.
- She has migraines with aura approximately 3 times per month.

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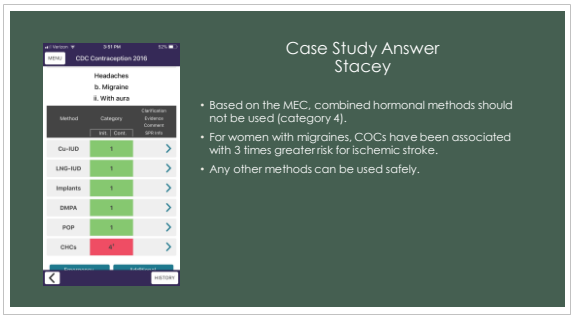

Case Study Answer
Stacey

- Based on the MEC, combined hormonal methods should not be used (category 4).
- For women with migraines, COCs have been associated with 3 times greater risk for ischemic stroke.
- Any other methods can be used safely.

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Case Study
Brianna

- Tonya is 32 years old and has uncontrolled high blood pressure.
- Her blood pressure today is 162/102.
- While she is at the primary care office for hypertension, she mentions that she is getting married soon and wants to start a birth control method.

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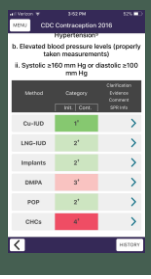

Case Study Answer
Brianna

- Based on the MEC, combined methods should not be used (category 4).
- For women with HTN who use COCs, there is an increased risk for stroke, acute myocardial infarction (MI), and peripheral arterial disease (PAD).
- The contraceptive injection (DMPA) is category 3. Some evidence suggests a small increased risk for cardiovascular events with DMPA in women with HTN.
- The non-hormonal IUD is category 1.
- The other methods are category 2.
- Note: The CDC MEC classifications are based on an assumption that the women has no other risk factors for cardiovascular disease other than hypertension. If a female has multiple risk factors, the risk for cardiovascular disease increases greatly.

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Case Study
Allison

- Allison is a 38 year old female who has been on combined birth control pills for 20 years. She smokes 1 pack of cigarettes per day.
- She recently became a patient at the family practice clinic and wants a refill on her birth control pills.
- She denies any other health issues.
- Based on the MEC, what do you tell Allison?

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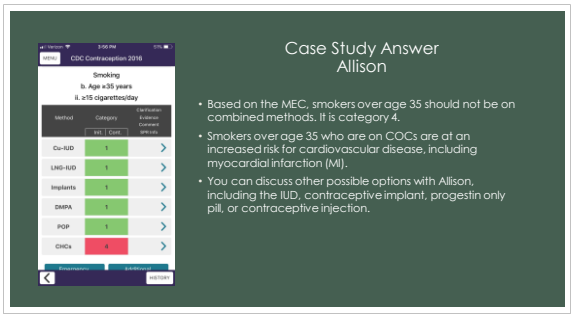

Case Study Answer
Allison

- Based on the MEC, smokers over age 35 should not be on combined methods. It is category 4.
- Smokers over age 35 who are on COCs are at an increased risk for cardiovascular disease, including myocardial infarction (MI).
- You can discuss other possible options with Allison, including the IUD, contraceptive implant, progestin only pill, or contraceptive injection.

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Case Study
Mary

- Mary is a 37 year old female patient has migraines with aura and her blood pressure today is 162/106.
- What methods are contraindicated based on the MEC?
- What methods are safe?

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Case Study Answer
Mary

- Migraines with aura: Category 4 for Combined hormonal contraceptives (pills, vaginal ring, patch)
- Migraines with aura: Category 1 for non-hormonal IUD, hormonal IUD, contraceptive implant, DMPA, and progestin only pills
- Hypertension with BP >160/100: Category 4 for combined hormonal pills and DMPA
- Hypertension with BP >160/100: Category 1 for non-hormonal IUD and category 2 for hormonal IUD, contraceptive implant, and progestin only pill.

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OBJECTIVE 3:

MANAGEMENT OF SIDE EFFECTS

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Breakthrough Bleeding (BTB)

- Breakthrough bleeding (BTB) is often a reason patients stop taking their birth control method.
- With COCs, patch, ring, and the copper-releasing IUD, unscheduled bleeding is common and usually resolves within 6 months.
- With 20 mcg pills, there may be more BTB than with higher doses of pills.
  - Only 10% of women have BTB by the 3rd month of COCs.
  - Extended cycle pills may have more BTB first 3 months.
  - 80-90% have no bleeding or spotting by months 10-12.

(Edelman & Kaneshiro, 2019)

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Breakthrough Bleeding (BTB)

- With ring and patch, similar BTB as with COCs.
- Unscheduled bleeding is common and expected with the use of progestin-only methods: implant, progestin-only pills, DMPA, and the hormonal IUD.
  - Further evaluation is not necessary unless bleeding pattern was abnormal prior to contraceptive use, heaving bleeding, pain, vaginal discharge, or abnormal pap results.
  - BTB may continue for the duration of the use of the progestin only contraceptive method.

(Edelman & Kaneshiro, 2019)

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BTB: History

- How many days of BTB each month?
- What was bleeding pattern before starting contraceptive method?
- How heavy is the bleeding?
- How many BTB episodes occur?
- Does the BTB occur during or after sex? If so, unlikely to be due to contraception.
- Does BTB occur with pain or urinary symptoms? If so, unlikely to be due to contraception.
- Has she been taking pills late or missing pills?
- Does she smoke? Smoking may increase risk of BTB.
- Does she have a new partner or at risk for STDs?
- When was last test for cervical cancer?
- Any nausea or other pregnancy symptoms?

(Edelman & Kaneshiro, 2019)

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BTB: Evaluation

- Need to rule out pregnancy first.
- Perform a Pelvic Exam
  - Need to screen for STDs and do a pap test if not up to date
- Further evaluation needed if patient has cervicitis, cervical polyps, cervical lesions, or uterine fibroids or polyps. Consider possibility of pelvic inflammatory disease (PID) if patient has cervicitis with cervical motion tenderness or uterine or adnexal tenderness.
  - Pelvic Ultrasound- Can order to assess for fibroids or polyps
- Need to consider possibility of endometrial cancer if heavy/prolonged bleeding or if a change in the bleeding pattern.
  - Endometrial Biopsy- Can order for patients over age 35 with bleeding 3 months before starting contraception, history of endometrial hyperplasia, etc.

(Edelman & Kaneshiro, 2019)

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Initial Management of BTB

Counseling and Education

- Tell patients that the most common time for BTB is first few months of being on a method.
- Discuss importance of consistent pill-taking if on oral contraceptives.

Advise Smoking Cessation

- Smokers are more likely to have BTB

(Edelman & Kaneshiro, 2019)

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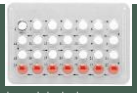
BTB with COCs



- NSAIDS- Ibuprofen 400 to 800 mg three times a day for 5 to 10 days. Note- unlabeled use.
- If on COCs, may try to switch patient to ring.
  - Helpful if patient forgetting pills. Consistent dose of hormones with ring.
- If on 20 mcg estrogen pills, change to higher dose of pill with 30 to 35 mcg of estrogen.
- If on monophasic pill, can try a triphasic pill.
- Can try a COC with a different progestin. Pills with norinthendrone may have less BTB than levonorgestrol.
- If on extended cycle pill or using ring continuously, you can advise patient to take a 3-4 day break as long as she has had 21 days of hormones in a row. Should not advise this more than once every 3 weeks.

(Edelman & Kaneshiro, 2019)

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BTB with DMPA

- 25% of patients stop DMPA due to not being satisfied with bleeding patterns, but bleeding may decrease over time.
- 46% of patients have no bleeding after 1 year of use.
- Management of BTB with DMPA:
  - NSAIDS- Ibuprofen 400 to 800 mg three times a day for 5 to 10 days. Note- unlabeled use.
  - Prescribe a pack of monophasic low-dose combined OC. Note- Unlabeled use.
  - Alternatively, you may prescribe 7 to 14 days of oral estrogen (1.25 mg conjugated estrogen or 2 mg of micronized estradiol) or transdermal estrogen (a patch releasing 0.1 mg estradiol/24 hours). Note: unlabeled use.
  - Tranexamic acid 250 mg orally four times per day for five days. Cost may be an issue.

(Edelman & Kaneshiro, 2019)

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BTB with Progestin-Only Pills (POPs)

- NSAIDS- Ibuprofen 400 to 800 mg three times a day for 5 to 10 days. Note- unlabeled use.
- Can offer a change in contraceptive method if still having BTB.
- Many women on POPs cannot take estrogen. If patient can tolerate estrogen, COCs may be an option.

(Edelman & Kaneshiro, 2019)

66

BTB with Implant

- 6-23% of implant users stopped using implant due to BTB.
- Counsel and reassure that BTB may improve by 6-12 months.
- NSAIDS- Ibuprofen 400 to 800 mg three times a day for 5 to 10 days. Note- unlabeled use.
- Trial of monophasic COCs for 3-6 months. Note: unlabeled use.
- Oral conjugated estrogen 1.25 mg or estradiol 2 mg once daily for 7 days or transdermal estrogen (estradiol 0.1 mg/day). Note: unlabeled use.

(Edelman & Kaneshiro, 2019)

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BTB with IUDs

- Copper IUD may cause heavier periods or spotting.
- Hormonal IUDs may cause BTB or amenorrhea.
- BTB most common in first 3-6 months.
- Need to check placement of IUD. Rule out pregnancy and cervical neoplasia.
- NSAID treatment options:
  - Ibuprofen 800 mg tid for 1-3 months. Note: unlabeled use.
  - Naproxen 500 mg twice daily for five days. Note: unlabeled use.
  - Diclofenac 50 mg taken three times daily for five days. Note: unlabeled use.
- Trial of combined estrogen/progestin hormonal contraception for 1- 3 months.
- If patient unable to take estrogen, can offer trial of progestin-only pills for 1-3 months.

(Edelman & Kaneshiro, 2019; Focus & Kiarts, 2019)

68

Dysmenorrhea

- Primary dysmenorrhea is crampy, lower abdominal pain with menses that is not associated with other conditions (such as fibroids or endometriosis).
- For primary dysmenorrhea, first-line treatment options include nonsteroidal anti-inflammatory drugs (NSAIDs), acetaminophen, and/or hormonal contraception.
- COCs cause the endometrium to become thin over time. The thin endometrium contains relatively small amounts of arachidonic acid, which reduces both uterine bleeding flow and decreases dysmenorrhea.
- Various COCs can be useful. Doses range from 20-35 mcg of estrogen.
- If 21/7 pill does not help with dysmenorrhea, can try or 24/4 pills or extended cycle pills.

(Smith & Kaunitz, 2019)

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Dysmenorrhea

- The ring or patch are options. The ring can be used continuously.
- DMPA can reduce dysmenorrhea. Almost half of patients have amenorrhea after 1 year of use.
- POPs may decrease secondary dysmenorrhea related to endometriosis. There is less research on using POPs to reduce primary dysmenorrhea. POPs may be an option to try for patients with dysmenorrhea who cannot tolerate estrogen.
- Hormonal IUDs have effectiveness similar to COCs for relief of dysmenorrhea. 20% of women have amenorrhea after 1 year of use of the Mirena and Liletta IUDs.
- Avoid the Copper IUD in patients with dysmenorrhea because it may increase dysmenorrhea.
- 75% of women with primary dysmenorrhea had improvement with the Implant.

(Smith & Koumbi, 2019)

70

Nausea

- Nausea on combined methods usually decreases within the first few months.
- Advise patient to take COCs at bedtime if having nausea.
- If patients are unhappy with the side effect of their method, they are less likely to continue it.
- May need to consider a change in COC or a different method.
- Can switch to lower dose pill. If patient is on a 30 or 35 mcg pill, change to 20 mcg pill.
- Can switch to ring. Nausea less common with ring than with COCs.
- Consider progestin only method, such as POPs, DMPA, Implant, or IUD.

(Kortz & Rice, 2019)

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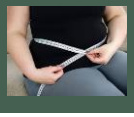
Weight Gain

- In studies, combined methods did not cause substantial weight gain.
  - Approximately 3-5 % of women have weight gain on COCs, the patch and the ring.
- Women who have a tendency to gain weight may struggle with weight gain while using DMPA.
  - Most people begin gaining weight within first 6 months of starting DMPA.
  - 66% of women reported a weight gain of 5 pounds during the first year of DMPA.
  - Average weight gain over 2 years of DMPA use was 8.1 pounds.
- Rare to have weight gain with POPs
- 13% of women reported weight gain with the Implant.
- 6% have weight gain with hormonal IUDs.



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Management of Weight Gain

- Ask patient about current diet and exercise patterns.
- Counsel patient on healthy diet and exercise.
- If patient is on COCs, try a lower dose of pill- 20 mcg pill.
- If weight gain on DMPA, could try COCs, POPs, Implant or IUD.

73

Depression

- Combined methods like COCs, ring, and patch are not as likely to cause depression as progestin-only methods.
- Progestins may cause or worsen depressive symptoms in certain patients, including those with a history of premenstrual syndrome (PMS) or mood disorders.
  - Monitor patient on progestin-only methods for increased symptoms of depression.

(Bartz & Rose, 2019; Kaunitz, 2019a)

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Depression

- If a patient becomes depressed on a combined method, you can try a different formulation.
  - Different pill
  - Switch from pill to ring
  - Switch from pill to patch
- If patient becomes depressed on a progestin-only method, may want to a combined method.
- If depression is severe, may want to try a non-hormonal method.
- Be sure to treat the depression and assess for suicidal or homicidal ideations.
- Be sure to assess for post-partum depression in patients.

(Bartz & Rose, 2019; Kaunitz, 2019a)

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Breast Tenderness

- Breast tenderness is common in the first few months of starting combined methods. It may improve with time.
- If breast tenderness persists, may change pill to lower dose of estrogen or prescribe another method.
- Breast tenderness may be less common on a progestin only method.
  - Only 1-5% of women on DMPA reported breast tenderness.

(Kortz & Rose, 2019)

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Case Study
Susan

- Susan is a 28-year old female who is having breakthrough bleeding on an extended cycle pills (84 active pills with 7 placebo pills). The bleeding is bothersome to her.
- She has taken her active pills for 32 days.
- What would you suggest to decrease her bleeding?
- How often could you advise this strategy?

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Case Study Answer
Susan

- Counsel Susan that it may be normal to have BTB the first full pack of an extended cycle pills.
- Ensure she is taking the pill daily and not missing or taking them late.
- If she is a smoker, advise her to stop.
- She could try Ibuprofen 400-800 mg po tid for 5-10 days.
- Susan could stop the pill for 3-4 days and restart.
- She should not do this more than every 21 days.

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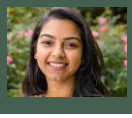
Case Study
Mary

- Mary is an 18-year old college freshman having weight gain on the Depo-Provera shot. She has gained 5 pounds over the first 12 weeks. She has returned today for her contraceptive follow up visit.
- She reports exercising less than normal and studying a lot. She has been eating the cafeteria food and is not sure how healthy it is.
- She wants to try a different method this time.
- What would you say to Mary?



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Case Study Answer
Mary

- It is important to counsel Mary about diet and exercise.
- The weight gain may be from moving to college and eating in the cafeteria.
- If she still wants to try another birth control method, it would be important to assess if she can remember a pill every day or she would prefer a different type of method.
- Methods other than DMPA are less likely to cause weight gain. Consider implant, IUD, COCs, ring, or patch.

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Case Study
Sidney

- Sidney is a 30-year old female who has had nausea on her Ortho Tri Cyclen pills (35 mcg estrogen).
- She has been taking the pills for 4 months at night, and she cannot tolerate the nausea anymore.
- What are some options for Sidney?

81

Case Study Answer
Sidney

- If Sidney wants to stay on the pills, it is possible to lower the dose and try a monophasic pills.
- The ring may be an option.
- Or a progestin only method like DMPA or POPs may decrease nausea.
- Implants or IUDs may also decrease the nausea.

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