

CONTRACEPTIVE COUNSELING: Coexisting Medical Conditions

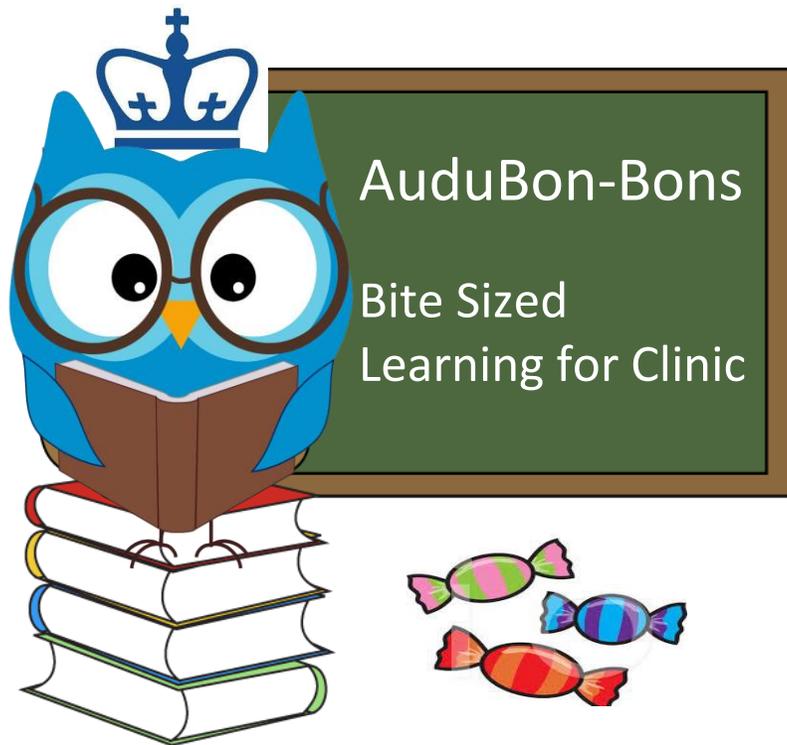
Week 77

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Reading Assignment:

ACOG Practice Bulletin #206: Use of Hormonal Contraception in Women with Coexisting Medical Conditions



LEARNING OBJECTIVES



- Understand the risks associated with estrogen-containing contraception
- Understand the risks associated with hormonal contraception use in populations with particular and common medical conditions
- Understand the utility of the US MEC



CASE VIGNETTE

- Patient is a 29 yo G3 P0030 woman who presents for contraception counseling.
- She reports a history of ineffective use of contraception. She has tried combined oral contraceptives, the patch, and the ring. She became pregnant on all three contraceptives.
- She does not want to try the IUD or implant.
- She is currently sexually active with multiple partners and using condoms consistently.



FOCUSED HISTORY

What elements of the patient's history are most relevant?

- **PMH:** Epilepsy, chronic hypertension
- **PSH:** D&C x 3
- **OBHx:** 3 x 1st TM VTOP
- **GynHx:** LMP 1 week prior; regular cycles; denies STIs, abnormal paps, fibroids, cysts
 - **Contraception history:** COCs, patch, and ring were used intermittently over the past 2 years; reported breakthrough bleeding and unintended pregnancy with all options despite adherence
- **FH:** Denies
- **SH:** No toxic habits; denies IPV
- **All:** NKDA
- **Meds:** Trileptal, Metoprolol



PERTINENT PHYSICAL EXAM FINDINGS

What elements of the patient's physical exam are most relevant?

- **VS:** 140/88, P 80, BMI 28.1
- **Gen:** NAD
- **GU:** Deferred



CONTRACEPTION COUNSELING: OVERVIEW

- Patient-centered approach
- Tiered counseling regarding methods, from most effective to least effective
- Factors to take into account:
 - Safety
 - Coexisting medical conditions
 - Effectiveness
 - Availability (affordability)
 - Acceptability
 - Patient goals, pregnancy intentions, timing
 - Non-contraceptive benefits
 - Side effect profile
- Importance of shared decision making in contraception counseling



FIRST-LINE RESOURCES

- U.S. Medical Eligibility Criteria for Contraceptive Use, 2016 (WHO)

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

- U.S. Selected Practice Recommendations for Contraceptive Use, 2016 (CDC)

TABLE C1. Examinations and tests needed before initiation of contraceptive methods

Examination or test	Contraceptive method and class							
	Cu-IUD and LNG-IUD	Implant	Injectable	CHC	POP	Condom	Diaphragm or cervical cap	Spermicide
Examination								
Blood pressure	C	C	C	A*	C	C	C	C
Weight (BMI) (weight [kg] / height [m] ²)	— [†]	— [†]	— [†]	— [†]	— [†]	C	C	C
Clinical breast examination	C	C	C	C	C	C	C	C
Bimanual examination and cervical inspection	A	C	C	C	C	C	A [§]	C
Laboratory test								
Glucose	C	C	C	C	C	C	C	C
Lipids	C	C	C	C	C	C	C	C
Liver enzymes	C	C	C	C	C	C	C	C
Hemoglobin	C	C	C	C	C	C	C	C
Thrombogenic mutations	C	C	C	C	C	C	C	C
Cervical cytology (Papanicolaou test)	C	C	C	C	C	C	C	C
STD screening with laboratory tests	— [¶]	C	C	C	C	C	C	C
HIV screening with laboratory tests	C	C	C	C	C	C	C	C



Combined Hormonal Contraception and VTE Risk

- **How does the estrogenic component of CHCs increase the risk of VTE?**
 - Increased hepatic production of **Factor VII, X, fibrinogen**
- **When does the normalization of clotting factors occur after discontinuation of CHCs?**
 - **4-6 weeks** after discontinuation
- **What dosage of ethinyl estradiol has the greatest risk of VTE?**
 - **>50 mcg**
- **When does the VTE risk return to baseline in the postpartum period?**
 - **12 weeks postpartum**; risk after 6 weeks is low (22.1/100K deliveries within 6 weeks vs 3/100K deliveries after 6 weeks)



What are some category 3/4 conditions where CHC use would not be recommended?

A
C
O
G

- Smoking + age ≥ 35 yo
- < 21 days postpartum OR 21-42 days PP w/ risk factors* (also breastfeeding women <42 days)
- Major surgery, prolonged immobilization
- History of VTE
- Hereditary thrombophilia (antiphospholipid syndrome)
- IBD with active/extensive disease, surgery, steroid use, vitamin deficiencies, fluid depletion
- SLE with positive antiphospholipid antibodies
- Superficial venous thrombosis
- **Multiple risk factors for arterial cardiovascular disease
- Hypertension
- Current/hx of ischemic heart disease
- Stroke
- Valvular heart disease (complicated, pHTN, a fib, hx of subacute bacterial endocarditis)
- Migraines with aura at any age
- Current breast cancer or past/no evidence of breast cancer within 5 years
- Diabetes: end-organ disease, vascular disease, or duration > 20 years
- Viral hepatitis, acute/flare (initiation)
- Severe cirrhosis
- Liver tumors (hepatocellular adenoma, malignancy), current/medically treated gallbladder disease
- Organ transplantation (complicated only)
- Certain medications

*age 35+ yo, hx VTE, thrombophilia, immobility, transfusion at delivery, peripartum cardiomyopathy, PPH, BMI 30+, PEC, smoking, post C/S delivery

**Older age, smoking, DM, HTN, low HDL, high LDL, high triglyceride levels

What are some category 3/4 conditions where progestin-only contraceptive use would not be recommended?

- Breast cancer
- Certain medications
- SLE with severe thrombocytopenia (<50K), DMPA initiation is cautioned (cat 3)
- Diabetes of > 20 years' duration, or +vascular disease (DMPA is cat 3)

What are some category 3/4 conditions where IUD use would not be recommended?

- Current pregnancy
- Puerperal sepsis
- Immediate postseptic abortion
- Unexplained vaginal bleeding (initiation only)
- Current breast cancer or past /no evidence of current disease x 5 years (LNG-IUS only)
- Cervical cancer (initiation)
- Gestational trophoblastic disease w/ persistently elevated HCG levels or malignant disease (initiation only)
- Endometrial cancer (initiation)
- Distorted uterine cavity
- Pelvic infection (PID, purulent cervicitis, GC/CT infection, pelvic TB, chorioamnionitis-all initiation only)

What are some category 3/4 conditions where barrier contraceptive use would not be recommended?

- At high risk for HIV (spermicide, diaphragm with spermicide, cervical cap)



Selected Clinical Scenarios



How would you counsel women 40 years/older who wish to take CHCs?

- Nonsmoking women without risk factors can continue CHCs until 50-55 yo
- Benefits of hormonal BC: positive effects on BMD, AUB, reduction of vasomotor symptoms, reduced risk of endometrial and ovarian cancer

How would you counsel women with obesity but are otherwise healthy on hormonal contraception use?

- All hormonal contraceptive methods should be available for this population
 - Oral BC is USMEC category 3 in women who have had malabsorptive gastric bypass procedures
 - CHCs are USMEC category 2
- Weight gain with DMPA use not significant, compared to mixed data for adolescent DMPA users who are obese
- Possible that contraceptive efficacy may be reduced due in those with class III obesity (BMI 40+), but more info needed
- Benefits of HC: endometrial stabilization and protection



How would you counsel women with cHTN on hormonal contraception use?

- All HC methods are available to women with BP < 140/90 mm Hg and are not on medication
 - Hypertension stage 1: SBP 130-139 mm Hg/DBP 80-89 mm Hg--> little evidence to stratify risk, thus continue with current USMEC guidelines
- CHC methods are USMEC cat 3 for women with cHTN controlled with medications
 - Relative risks of acute MI 12-fold greater compared to those not on CHCs
 - Initiating CHC methods in this population may be possible in women where other contraceptive options are unavailable and patient's risk profile is as limited as possible (i.e., well controlled BPs, <35 yo, non-smoker, no evidence of end-organ disease, healthy otherwise)

When is progestin-only HC contraindicated in women with cHTN?

- DMPA in women with HTN of SBP \geq 160 mm Hg or DBP \geq 100 mm Hg (USMEC cat 3)
- How does DMPA increase the risk of atherosclerotic cardiovascular disease?
 - Increases lipoprotein profiles favorable to atherosclerosis



What are the classes of medications that can affect how hormonal contraception can be provided?

- Anticoagulants
- Anticonvulsant medications
- Antimicrobial medications
- Antiretroviral medications

Anticoagulant Medications and Hormonal Contraception

- **What hormonal contraception is preferable for women taking anticoagulants?**
 - All progestin-only methods (USMEC category 2)
 - All CHCs are USMEC cat 3
- **What are the pertinent risks of taking anticoagulants in women of a reproductive age?**
 - Teratogen (warfarin), HMB, hemorrhagic ovarian cysts
 - What are the benefits of hormonal contraception in this population?
 - Reduce HMB and subsequent anemia; reduce ovarian cyst formation and rupture (particularly with DMPA and LNG-IUS)



Antiepileptic Medications and Hormonal Contraception

- **Why do some antiepileptic medications affect hormonal contraceptive efficacy?**
 - Liver enzyme inducers cause reduced serum concentrations of either or both the estrogen/progestin components of CHCs, reducing efficacy
 - CHCs and POPs are USMEC category 3 due to risk of pregnancy
 - Cu-IUD, LNG-IUS, DMPA are USMEC cat 1
 - Implant is USMEC cat 2
 - What are the liver enzyme inducers?
 - Carbamazepine, felbamate, oxcarbazepine, phenobarbital, phenytoin, primidone, rufinamide
- **What antiepileptic medication is affected by hormonal contraception?**
 - Lamotrigine/Lamictal metabolism is affected by estrogen and can lead to decreased serum concentrations (USMEC cat 3)
- **For women taking enzyme-inducing medications, which BC methods would be preferable?**
 - DMPA and IUDs



Antimicrobial Medications and Hormonal Contraception

- **What antimicrobial medications are relatively contraindicated in women taking POPs or CHCs?**
 - Rifampin or rifabutin (USMEC cat 3)
 - Lower serum concentrations of estrogen/progestin in this population, reduced efficacy

Antiretroviral Medications and Hormonal Contraception

- **What antiretroviral medication is relatively contraindicated in women taking CHCs?**
 - Fosamprenavir (USMEC cat 3)
- **How does efavirenz affect hormonal contraception?**
 - Studies have shown reduced levonogestrel and etonogestrel concentrations in women taking efavirenz and using implants (either Jadelle or Implanon/Nexplanon) for contraception, leading to concerns for reduced efficacy.
 - Overall, still have lower contraceptive failure rates than those taking all other methods, thus, USMEC cat 2



Case Vignette Continued

How would you counsel this patient on contraceptive options?

- CHCs are category 3 for 1) cHTN, 2) enzyme inducing anticonvulsant
 - Reduced contraceptive efficacy from anticonvulsant, leading to unintended pregnancy
- **Progestin-only (non POP) methods** are preferable
- Provide tiered counseling
- Barrier contraception for STI prevention



SOCIAL DETERMINANTS OF HEALTH

Unintended pregnancy in women with epilepsy

80% of women with epilepsy had at least 1 unintended pregnancy

65.0% of total pregnancies were unintended

Risk factors include:

- Black or Hispanic race
- Younger age

1/3 of unintended pregnancies occurred when women with epilepsy were not using contraception

Fertility in women with epilepsy is reduced by 15% to 30% which may lead to some believing they cannot get pregnant

Improved access to family planning services and contraception is needed for women with epilepsy in underserved communities, especially considering the risk of congenital malformations associated with anti epileptic drugs.



Epic .phrase

BBonEpilepsyContraception

Description: Contraception counseling in women with epilepsy

*** pt on enzyme inducing anti-epileptic drugs* who reports unprotected sex in the last 5 days requests emergency contraception. The risks and benefits of the copper IUD as the emergency contraception option were discussed. The risks and benefits of the alternative option of a 3 mg dose of levonorgestrel was also discussed. Pt was advised against using ulipristal acetate given lack of efficacy in patients on enzyme inducing anti-epileptic drugs.

*** risks and benefits of contraceptive options for patients with epilepsy on enzyme inducing anti-epileptic drugs*, including medroxyprogesterone acetate depo injections, intrauterine devices, and levonorgestrel releasing intrauterine systems were discussed. Education on the effects of enzyme inducing drugs on the efficacy of combined oral contraceptive pills, progestogen only pills, and progestogen implants was explained. High failure rates of barrier methods alone (15%-20%) was provided, and the teratogenic risks associated with failure/unplanned pregnancy was discussed. Patient preference was elicited, relative efficacy of each contraceptive was discussed, and interactions with prescribed anti-epileptic drugs was considered in determining the appropriate contraceptive. Pt was asked to return if she decides to stop contraception and plan a pregnancy, as aspects of preconception care differ for women with epilepsy.

*** risks and benefits of contraceptive options for patients with epilepsy on lamotrigine were discussed. Specifically the effect of combined oral contraceptive pills in reducing blood concentrations of lamotrigine was explained. It was explained that if combined oral contraceptives are chosen, the cycle must be extended so that there is no pill free interval and consultation with her neurologist is required to adjust the dose of lamotrigine. Pt was asked to return before she decides to stop contraception and plan a pregnancy, as aspects of preconception care differ for women with epilepsy.

* carbamazepine, eslicarbazepine acetate, oxcarbazepine, phenobarbital, phenytoin, primidone, rufinamide, topiramate, perampanel



CODING AND BILLING

- **ICD-10 Code**

- Z30.9, Encounter for counseling regarding contraception

- **CPT Code**

- 99213
 - 99214 if attending has seen patient



EVIDENCE

- Curtis KM, Tepper NK, Jatlaoui TC, et al. U.S. Medical Eligibility Criteria for Contraceptive Use, 2016. MMWR Recomm Rep 2016;65(No. RR-3):1–104. DOI: <http://dx.doi.org/10.15585/mmwr.rr6503a1>.
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- Use of hormonal contraception in women with coexisting medical conditions. ACOG Practice Bulletin No. 206. American College of Obstetricians and Gynecologists. Obstet Gyne- col 2019;133:e128–50.
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- Steinhoff B. J. (2008). Pregnancy, epilepsy, and anticonvulsants. *Dialogues in clinical neuroscience*, 10(1), 63–75.
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