

Hormonal Contraception: Updates and Review

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Disclosures

None

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Objectives

1. What's new in Hormonal Contraception?
2. Common medical conditions and prescribing HC.
3. Review common side effects of HC and how to manage them

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New Contraceptive Vaginal Ring (CVR)

- FDA approved 2018
- Annovera
- Soft, reusable, flexible silicone ring



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CVR - Annovera

- 103 mg Segesterone Acetate/17.4 mg of EE
- Release 0.15 mg/day of SA
- Release 0.013 mg/day of EE

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Nuva Ring vs Annovera

- | | |
|---|---|
| <ul style="list-style-type: none"> • Daily Release Rates <ul style="list-style-type: none"> ◦ Etonogestrel 120 mcg/day ◦ EE 15 mcg/day • Diameter 54 mm • Thickness 4 mm • Lifespan 1 cycle • Refrigeration | <ul style="list-style-type: none"> • Daily Release Rates <ul style="list-style-type: none"> ◦ Segesterone 150 mcg/day ◦ EE 13 mcg/day • Diameter 56 mm • Thickness 8.4 mm • Lifespan 13 cycles • No refrigeration |
|---|---|

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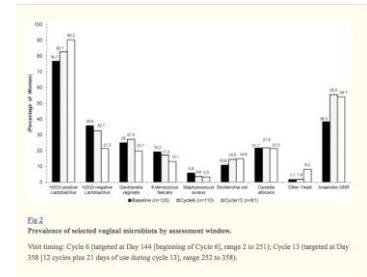
Annovera - Effects on Vaginal Flora

- Vaginal flora can be disrupted by
 - Hormonal fluctuations
 - Sexual activity (frequency/# partners)
 - Use of vaginal products
 - Antibiotics
 - Douching

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Annovera - Effects on Vaginal Flora

Sustained use did not increase vaginal infections or disrupt vaginal flora



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Annovera - Patient counseling

- Leave in place for 21 days and then remove for 7 days
- Wash with mild soap. Store in case away from sunlight.
- Anticipatory guidance
 - Ring can be left in place during sex
 - Does not need frequent washing
 - Does not increase vaginal infections

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Vaginal Ring - Annovera

- 2308 women
- Ages 18 - 40 years
- ♀ BMI > 29 kg/m²
- ♀ < 35 years
 - Perfect use failure rate 2.98 pregnancies per 100 couples per year
 - Typical use failure rates not yet published

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Vaginal Ring - Annovera - Side effects

- 89% satisfaction rate related to
 - Ease of use
 - Side-effects
 - Expulsions
 - feeling the product and effects during sexual activity
- 5-10% experienced unscheduled bleeding per 28-day cycle

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Vaginal Ring - Annovera

- Anticipated availability - third quarter of 2019
- Reduced pricing planned for Title X clinics
- Developed by the Population Council
- Licensed to Therapeutics MD
- "The first woman-controlled, procedure-free, long-acting reversible contraceptive (LARC)."

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Old methods - new updates

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Antibiotics and Hormonal Contraception (HC)

Misconceptions/Myth

- Back up contraception necessary
- May interrupt a woman's use of HC or
- Poor compliance with antibiotics

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Antibiotics and Hormonal Contraception (HC)

- 2018 Systematic Review
- 29 studies that examined HC and non-rifamycin antibiotics
 - Pregnancy rates
 - Serum progesterone levels
 - Sonographic evidence of ovulation
 - Change in bleeding in patterns or
 - Pharmacokinetics

Simmons KB, Haddad LB, Nanda K, Curtis KM. Drug-interactions between non-rifamycin antibiotics and hormonal contraception: A systematic review. *Am J Obstet Gynecol* 2018, 218:88-97

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Antibiotics and HC - Take Home

- Existing evidence does not support drug interactions between HC and non-rifamycin antibiotics
- Women using broad spectrum antibiotics are eligible to use all contraceptive methods
- Providers should encourage correct and consistent use of HC at all times, including during illness

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Breast Cancer and HC

- Little is known about whether contemporary hormonal contraception is associated with an increased risk of breast cancer
- NEJM 2017
 - Cohort study of 1.8 million women
 - Followed for 10.9 years

March LS, Skovlund CW, Hannaford PC et al. Contemporary Hormonal Contraception and the Risk of Breast Cancer. *N Engl J Med* December, 2017; 377(23): 2228-2239.

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Breast Cancer and HC

- NEJM 2017
- Methods
 - Nationwide registries – followed Danish women 15-49
 - Cohort study of 1.8 million women
 - Followed for 10.9 years

March LS, Skovlund CW, Hannaford PC et al. Contemporary Hormonal Contraception and the Risk of Breast Cancer. *N Engl J Med* December, 2017; 377(23): 2228-2239.

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Breast Cancer and HC

- Results
 - 19.6 million person-years of data
 - 11,000 breast cancer diagnoses
 - RR of Breast cancer among current or recent users of HC compared to never users – 1.20 (95% CI, 1.14 -1.26)
 - Risk increased with duration of use RR 1.09 (95% CI, 0.96– 1.23)

March LS, Skovlund CW, Hannaford PC et al. Contemporary Hormonal Contraception and the Risk of Breast Cancer. N Engl J Med December, 2017; 377(23): 2228-2239.

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Breast Cancer and HC – Take Home

- Overall risk of Breast cancer is low
- Increased risk in recent studies equates to 1 additional case of breast cancer for every 7690 women using HC
- Benefits of HC include:
 - Decreased risk of ovarian, endometrial, and colorectal cancer
 - Pregnancy and maternal mortality riskier than Breast CA
 - Socioeconomic benefits

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Nocebo Phenomenon

- Counseling about side-effects from OCPs and including them in the product label, is **“unwarranted and probably unethical”**
- Placebo-controlled randomized trials show no difference in side-effects
- If women are told to expect noxious side effects
 - they may occur due to the power of suggestion
 - Or may reflect prevalence of side-effects in the population

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Menstrual Related Side Effects

- **Absent or Decreased Scheduled bleeding**
 - Scant bleeding or spotting counts
 - Complete amenorrhea – formulation, duration
- **Unscheduled Vaginal Spotting or Bleeding**
 - 30-50% first few months
 - 10-30% by third pack
 - Rule out pregnancy, infection, missed pills, medications and GI problems
 - Change pills after 2-3 months if persistent

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Combined Oral Contraceptives Estrogen, Progesterone and combined effects

Estrogen Related	Progesterone Related	Androgen Related
Weight gain in breast, hips, and thighs	Cyclic weight gain	Slow, steady, weight gain
Cervical eversion or ectopy	Hypoglycemic headaches	Hirsutism
Increased blood pressure	Constipation, bloating	
Rise in gallbladder cholesterol	Fatigue	Elevated LDC-C
Melasma, telangiectasia	Depressive symptoms	Acne
Hepatocellular adenoma	Increased insulin resistance	Oily skin
Arterial thrombosis	Precipitation of gallbladder sludge or stones	
Venous thromboembolism		
Headaches	Nausea	
Increased HDL-C and triglycerides	Mastalgia	
Nausea		
Mastalgia		

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Unscheduled Bleeding Management

- **Bleeding before completing active pills**
 - Need more endometrial support
 - Increase progestin content
 - Different monophasic or triphasic with increasing progestin

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Unscheduled Bleeding Management

- **Continued spotting/bleeding after scheduled bleeding**
 - Need more building up of endometrium
 - Increase estrogen in the first pills of the pack
 - Decrease progesterone in the first pills of the pack

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Unscheduled Bleeding Management

- **Mid cycle spotting/bleeding**
 - Unclear etiology
 - Use triphasic pill that increases both estrogen/progesterone

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COC – Weight Changes

- Women may respond robustly to any of the pill's hormones
- Increases in size of breasts, hips and thighs – Estrogen effect on adipose cells (hypertrophy)
 - Decreasing estrogen can reduce this impact

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COC – Weight Changes

- Weight gain similar to premenstrual fluid retention is due to increased aldosterone release
 - Estrogen activity augmented by progesterone
 - Decrease both estrogen and progesterone
 - Choose drospirinone
- Encourage women to adopt a healthy diet and exercise

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COC – Headaches

- 4% of COC users stop due to HA
- RCT found that women using placebo pills experienced headaches as frequently as COC users
- HA complaints decrease with continued use

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COC – Headaches

- HA with first cycle
 - 1 in 3 chance of having them in the 2nd month
 - 1 in 10 by 3rd month
- No evidence to support the common clinical practice of switching pills to treat HA

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COC – Headaches

- Confirm whether HA started or worsened in frequency or severity with onset of COC use
 - Stop COC during evaluation if HA severe or aura
 - Consider POPs
 - Consider lowering estrogen dose

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COC – Headaches

- Rule out other causes
 - BP
 - Caffeine intake
 - TMJ, sinusitis, dental problems, drug or alcohol use, etc
- Characterize type of HA
 - New onset migraines or worsening severity during active pills STOP
 - Aura – STOP
 - HA during placebo pills – offer extended use COCs

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COC – Skin Changes

- Estrogen stimulates melanocytes
 - Darkening of pigmented areas – linea nigra
 - Dark patches on the face – melasma or chloasma
 - Women with darker skin are more susceptible
 - D/C estrogen – will fade but sometimes incompletely
 - Consider POPs if woman gives previous history of this
 - Sunscreen and hats

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COC – Skin Changes

- Estrogen stimulates formation of Telangiectasias
 - Fine, dilated intracutaneous capillaries and small arteries
 - Not clinically significant
 - May be cosmetically disturbing
 - Avoid in women with pre-existing T

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COC – Skin Changes

- Worsening or new onset acne, oily skin or hirsutism
 - Less than 5% of women
 - Consider other causes if symptoms are severe (ovarian)
 - Switch to a COC that is less androgenic
 - In one study Drospirinone superior to norgestimate
 - If none available pick one with low androgenicity and high estrogen content

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COC – Mastalgia

- Both estrogen and progesterone affect the breast
- 30% of women experience Mastalgia when starting Ocs
- Ovulating women experience a substantial increase in breast volume (up to 20%) during the luteal phase due to venous and lymphatic engorgement

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COC – Mastalgia

- Estrogen
 - hypertrophy of the adipose cells in the breast
 - breast size can increase
- Interventions
 - Proper fitting bra
 - Decrease doses of both
 - Low dose 20 mcg E less mastalgia than 35 mcg

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COC – GI Symptoms

- Estrogen can induce nausea/vomiting
- Sex steroids affect the intrinsic firing rate of the gastric pacemaker cells
- Progesterone – slows peristalsis
 - Increased constipation
 - Increased sensation of bloating and distension

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COC – GI Symptoms

- Most women will get used to the pills and symptoms resolve in 1-3 months
- Take pills at night or with food
- For missed pills – take them 12 hours apart instead of double dosing

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COC – GI Symptoms

- Advise more fluids, fresh fruit and vegetables
- If recent onset severe GI symptoms
 - Evaluate for cholecystitis, appendicitis, diverticulitis, reactivation of IBS
- If no resolution
 - Switch to POP
 - Decrease hormone dose. Can go as low as 10 mcg now.

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COC – Eyes

- May notice visual changes or change in lens tolerance with COC due to dry eyes
- Normal saline drops can help

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COC – Mood Swings and Depression

- Based on multiple studies – no increased risk of clinical depression
- Estrogen and Progestin in high-dose pills interact with tryptophans and serotonin – NOT with low dose pills
- Some women report increase in depressive symptoms, moodiness and other emotional states on COCs

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COC – Mood Swings and Depression

- Some women report increase in depressive symptoms, moodiness and other emotional states on COCs
 - Evaluate when in the cycle these present
 - May be an idiosyncratic response to hormones

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COC – Mood Swings and Depression

- If symptoms before menses – extended or continuous use of active pills
 - If wants period – start active pills on first day of menses
- May respond to decrease in hormone dose or stopping
- Consider drospirenone containing - FDA approved for PMDD

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COC – Mood Swings and Depression

MENU CDC Contraception 2016

Depressive disorders

▼ *Clarifications

If a woman is receiving psychotropic medications or St. John's wort, see Drug Interactions section.

▼ Evidence

COC use was not associated with increased depressive symptoms in women with depression or scoring above threshold levels on a validated depression screening instrument compared with baseline or with nonusers with depression. One small study of women with bipolar disorder found that oral contraceptives did not significantly change mood across the menstrual cycle.

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COC – Libido

- During reproductive years libido not associated with circulating testosterone
- RCTs have found that few women complain of change in libido
- Libido – affected by relationship issues, personal history, stress, depression etc

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COC – Libido

- COCs decrease vaginal secretions by decreasing cervical secretions
 - May be interpreted as decreased arousal
 - Decreased sections may make intercourse painful
 - Consider increasing estrogen or vaginal ring
 - Switch to a more androgenic pill

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Questions?

Thank you!