ADULT-GERONTOLOGY PRIMARY CARE NURSE PRACTITIONER

CERTIFICATION REVIEW/ CLINICAL UPDATE CONTINUING EDUCATION COURSE

www.NPcourses.com
Barkley & Associates
8235 Santa Monica Blvd., Suite 201
West Hollywood, CA 90046

LIVE COURSE

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"Providing the Nation's BEST Nurse Practitioner Continuing Education Courses"

On behalf of the company**,** welcome to a Barkley & Associates Certification Review/Clinical Update Continuing Education Course. Please take a moment to read the following information to maximize the benefits involved in taking one of our courses.

Barkley & Associates' BLITZ courses are specifically designed to assist you in organizing a large body of information to help identify your learning needs so that when you return home, time can be efficiently spent focusing on areas of weakness. It is important to remember, "we tend to study what we already know and/or are familiar with." Therefore, we hope that our outlined approach to covering material will help you highlight both content which you have mastered, as well as specific areas to remediate.

When preparing for certification exams, it is helpful to remember that all certification bodies are required to document the answers and/or rationales for correct answers to questions from at least two expert sources within a particular field. Therefore, time should be spent reviewing MAJOR, NATIONAL standards of care, developmental milestones, national health promotion guidelines, and the like rather than obscurely found disorders or controversial treatments and therapies. Every effort has been made to structure our course content to match exam content outlines by each certification body. There is no need to take copious notes. Rather, simply highlight and make notes on your handouts regarding areas of weakness to specifically revisit once you are studying alone at home.

The following tips have also been instrumental in our > 99% pass rate on ALL national certification exams! We strongly recommend that you follow each of these recommendations to maximize your success:

- Study and master OUR material FIRST – before concentrating on additional notes, texts or question/answer books. The content outlined in our handouts is absolutely essential information to know.
- How do you know that you know what you know? You must be asked! Therefore, quiz with a partner and be expected to clearly verbalize answers to your partner's questions. Familiarity with the subject matter can be very dangerous when taking a multiple-choice exam under stress. If the correct answer comes out of your mouth when being questioned, you know that you have mastered the material. If your response is not clearly correct, practice and polish until there can be no confusion that you understand the material as evidenced by verbally answering questions correctly.
- Do not delay taking your exam for months following the review course. Rather, plan a specific time frame for studying and take your exam as soon as you possibly feel confident.

We are very pleased to have the opportunity to serve you and hope you enjoy the educational experience we have planned. Thank you for choosing us as your certification review/clinical update continuing education company. We wish you the most success!

With kindest regards,

Thomas W. Barkley, Jr., PhD, ACNP-BC, FAANP
President

Notice

Adult-gerontology primary care nursing and the practice of adult-gerontology primary care nurse practitioners is an ever-changing field. Standard safety precautions must be followed, but as new research and clinical experience broaden our knowledge, changes in treatment and drug therapy may become necessary or appropriate. Readers are advised to check the most current product information provided by the manufacturer of each drug to be administered to verify the recommended dose, the method and duration of administration and contraindications. It is the responsibility of the licensed prescriber, relying on expertise and knowledge of the patient, to determine dosages and the best treatment for each individual patient. Neither Barkley & Associates nor any contributing authors assume any responsibility for any injury and/or damage to persons or property arising from this publication.

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CONTENT

CONTRACEPTIVE OPTIONS

Oral Contraceptives

Tablets taken daily which contain estrogen and/or progestin whose purpose is to interfere with fertilization or implantation or both to prevent pregnancy and/or control the menstrual cycle

Categories

1. Combined pills alter the dosage of estrogen and progestin throughout the cycle and contain:
    a. Ethinyl estradiol + norgestimate (Ortho-Cyclen, Ortho Tri-Cyclen, Ortho Tri-Cyclen Lo)
    b. Ethinyl estradiol or mestranol, synthetic estrogens
    c. Norethindrone, norethindrone acetate, ethanediol diacetate, norethynodrel, norgestrel, levonorgestrel, desogestrel, gestodene, norgestimate; all progestins
2. Progestin-only (mini pills) are not as effective as combination pills
    a. Mechanism of action affects the cervical mucus and the endometrium, most likely changes tubal transport of oocyte and sperm

Effectiveness

1. Typical first-year failure rate: 3.0%
2. Typical first-year failure rate (age < 22yrs): 4.7%

Mechanism of Action

1. Estrogenic Effects
    a. Ovulation inhibited by suppression of FSH/LH
    b. Implantation inhibited by alteration of the endometrium
    c. Ovum transport is accelerated
    d. Luteolysis may occur as estrogen causes progesterone levels to fall
2. Progestational effects
    a. Thick cervical mucus interferes with sperm transport
    b. Capacitation may be inhibited
    c. Ovum transport may be slowed
    d. Implantation is hampered by suppression of endometrium
    e. Ovulation inhibited by hypothalamic-pituitary-ovarian disturbances

Advantages

1. Excellent protection against unwanted pregnancy; may lead to fuller sexual satisfaction due to reduction in fear of pregnancy
2. Safe for most women
3. Decreased menstrual cramps and pain (non-contraceptive benefit)
4. Less menstrual blood flow (non-contraceptive benefit)
5. Improvement in facial acne (non-contraceptive benefit)
6. Woman controls own fertility
7. Excellent reversibility and easy to use

8. Well researched
9. May provide protection against ovarian and endometrial cancer, ectopic pregnancy, pelvic inflammatory disease (PID), functional ovarian cysts, endometriosis, uterine fibroids, among others

Disadvantages

1. May lead to mood changes
2. No protection against HIV
3. Expensive for some women
4. Rare circulatory complications which may be dangerous
5. Increased risk of rare liver tumors
6. Pills must be taken every day
7. Possible side effects such as nausea, headaches, breakthrough bleeding

Undesirable Hormonal Effects

1. Excessive estrogenic effects
    a. Dysmenorrhea
    b. Nausea
    c. Chloasma
    d. Cerebrovascular accident (CVA)
    e. Deep venous thrombosis (DVT)
    f. Thromboembolic disease
    g. Pulmonary emboli
    h. Telangiectasias
    i. Hepatic adenoma/adenocarcinoma
    j. Cervical changes
    k. Breast tenderness (secondary to increased size)
2. Deficiencies in estrogen
    a. No withdrawal bleeding
    b. Decreased duration in menstrual bleeding
    c. Continuous spotting/bleeding
    d. Break through bleeding on Day of Cycle (DOC) 1 to 9
    e. Atrophic vaginitis
3. Excessive progestational effects
    a. Breast tenderness
    b. Transient hypertension
    c. Depression
    d. Fatigue
    e. Decreased libido
    f. Decreased duration in menstrual bleeding
    g. Increased appetite
4. Deficiencies in progesterone
    a. Breakthrough bleeding DOC 10 to 21
    b. Delayed menses

5. Excessive androgenic effects
    a. Hirsutism
    b. Acne
    c. Oily skin
    d. Edema
    e. Increased libido
6. Excess estrogen/deficient progesterone combination
    a. Dysmenorrhea
    b. Menorrhagia
    c. Nausea
    d. Vomiting
    e. Headache
    f. Irritability
    g. Bloating/edema
    h. Syncope

Absolute Contraindications

1. History of thromboembolic disorders
2. CVA (history of)
3. Coronary artery disease (CAD)
4. Known or suspected breast carcinoma
5. Known or suspected estrogen-dependent neoplasia
6. Pregnancy
7. Benign or malignant liver tumor; impaired liver function
8. Previous cholelithiasis during pregnancy
9. Undiagnosed, abnormal uterine bleeding

Management/Prescriptive Guidelines

1. General considerations
    a. Begin with low-dose combined or multiphasic pill (35 mcg or less)
    b. Progestin-only pills may be used in women with history of migraine headaches, who are breast feeding or who have some contraindication to combination pills
2. Patient Education
    a. Instructions for use/how pill works
    b. "Missed" pills and backup contraception
3. Adverse Effects
    a. Abnormal menstrual bleeding: Breakthrough bleeding and spotting may be common; may need a higher dose
    b. Amenorrhea or hypermenorrhea: Often caused by low amount of progestin; may need dose increased
    c. Birth defects: Estrogen = pregnancy category X; immediately discontinue oral contraceptives (OCs) if pregnant
    d. Cancer: Estrogens promote certain types of breast cancer; patients with + breast CA family history should not take OCs
    e. Hypertension: Risk is increased with age, dose, and length of therapy
    f. Weight gain, increased appetite, fatigue, depression, acne, and hirsutism: Often caused by high amounts of progestin; may need lower dose

g. Nausea, edema, and breast tenderness: Caused by high amounts of estrogen; may need lower dose
h. Thromboembolic disorders: Increased risk in some patients; OCs contraindicated in patients with a history of thromboembolic disorders, CVA, CAD, or heavy smokers
i. Drug-drug interactions: Certain antibiotics and anticonvulsants ↓ the effectiveness of OCs; OCs ↓ the effectiveness of warfarin, insulin, and certain oral hypoglycemics

Contraceptive Ring

NuvaRing

A flexible, prescriptive contraceptive ring, approximately 2 inch in diameter, for the purpose of preventing pregnancy

Effectiveness
1. Typical failure rate: < 1 to 2%
2. Reported manufacturer effectiveness: 92 to 99.7%

Mechanism of Action
1. Releases synthetic estrogen and progestin (etonogestrel), providing pregnancy protection for 1 month
2. Release of hormones is activated by vaginal contact
3. Prevents ovulation; thickens the cervical mucus, inhibiting sperm penetration
4. May alter the endometrium to affect implantation

Advantages
1. Convenient
2. Once per month insertion
3. Easily reversible
4. Does not require partner participation, thus sexual activity is not interrupted
5. Fewer mood swings reported than with oral contraceptives
6. Discreet: Usually, cannot be felt by the patient or partner
7. May lead to shorter, lighter, and more regular menstrual periods
8. Assumed to offer additional similar non-contraceptive benefits of oral contraceptives (e.g., decreased menstrual cramps, improvement of facial acne, depression, etc.)

Disadvantages
1. Similar to OCs (e.g., breast tenderness, headaches, weight gain, nausea, mood changes, breakthrough bleeding, yet a lower incidence compared to oral contraceptives)
2. Increased vaginal discharge, irritation, or infection
3. Diaphragms, cervical caps, or shields cannot be used as a back-up method of contraception while using the ring
4. May worsen depression in patients previously diagnosed
5. No protection from HIV/AIDS or STDs/STIs