

UPDATES TO  
**Adult-Gerontology Nurse Practitioner  
Certification Intensive Review:  
Fast Facts and Practice Questions**

**Third Edition**

**Maria T. Codina Leik**

**CONTRIBUTORS**

**p. ix, lines 30–31:**

Elizabeth Johnston Taylor, PhD, RN  
Professor

**CHAPTER 1**

**p. 4, line 18:**

Credentials: FNP-C, AGNP-C

**p. 5, Table 1.1, second column, lines 9–10:**

The NP director of your program needs to sign the ANCC Education Validation Form.

**p. 5, line 11:**

The ANCC and the AANPCB release a new edition of their exams about every 2 years. The AANPCB is now releasing a new edition of their exam annually.

**p. 7, lines 4–9:**

**1. What are the passing rates for the two exams?**

For the exams released in 2016, the passing rates for the ANCC and AANPCB exams are as follows:

*FNP exam:* 82% for the ANCC versus 80% for the AANPCB, or a difference of just 2%.

*AGPCNP/AGNP exam:* 86% for the ANCC versus 76% for the AANPCB—a 6% difference, which is significant.

**p. 8, lines 24–25:**

8. How long does it take to process a completed application?  
ANCC: It takes about 4 to 6 weeks to process an application.

**p. 19, line 7:**

Appointed to the Eighth Joint National Committee

## CHAPTER 2

**p. 26, lines 27–30:**

II. Example

The nurse practitioner (NP) is performing a routine physical exam on a 54-year-old White male farmer who is an immigrant from Australia. The NP notices a round skin lesion on the patient's forehead. It has a firm texture with indurated edges.

**p. 30, lines 11–13:**

4. Asian Americans and Pacific Islanders are eight to 13 times more likely to develop liver cancer than other groups due to higher rates of chronic hepatitis B infection.

**p. 31, Table 2.1, line 14:**

Eosinophils >3% (↑allergies, parasitic diseases, cancer)

**p. 33, lines 26–29:**

Be aware that a clinical finding can be described in detail instead of using its common name. For example, the term *clue cell* is not used in the question that follows. Instead, it is described in detail ("mature squamous epithelial cells with numerous bacteria noted on the cell surface and borders").

**p. 34, lines 9–11:**

Notes

1. BV has an alkaline pH (vagina normally has an acidic pH of 3.5-4.5). BV is the only vaginal condition with an alkaline pH for the exam.

**p. 39, lines 1–3 and 9:**

Notes

1. The USPSTF (2018) is against routine screening for ovarian cancer in asymptomatic women who are not known to have a high risk of hereditary cancer syndrome.  
4. The next step is to order a pelvic and intravaginal ultrasound with CA-125. Refer to oncologist.

**p. 45, line 8:**

Bacterial endocarditis

**p. 45, line 38:**

Subarachnoid bleeding

**p. 49, para 8, line 2:**

A 13-year-old girl with a history of mild persistent asthma and allergic rhinitis complains of

**p. 50, Notes, line 6:**

4. Initiate a prescription of a short-acting beta-2 agonist QID PRN and a low-dosed steroid inhaler BID.

**p. 53, line 11:**

Red bulging tympanic membrane with cloudy fluid inside and displaced landmarks

**p. 53, line 34 has been deleted:**

#### DIAGRAMS

##### I. Discussion

The only diagram seen on the test at the moment is one of a chest with the four cardiac auscultatory areas (aortic, pulmonic, tricuspid, and mitral) marked. The diagram is used for questions on either cardiac murmurs or the heart sounds.

**p. 54, lines 1–2:**

III. Correct Answer: Option D

D) Mitral area

**p. 54, Notes:**

#### Notes

1. The mitral area, sometimes called the cardiac apex, is the optimal location to hear the S3.
2. This area is located at the fifth intervertebral space, along the mid-clavicular line.
3. The left lateral recumbent position brings the apex closer to the wall and improves the practitioner's ability to hear the left ventricular S3.

**p. 54, lines 12–24:**

#### "GOLD STANDARD" TESTS

##### I. Discussion

Learn to distinguish between a screening test and a diagnostic test (the "gold standard").

Depending on the disease process, the preferred diagnostic test might be a biopsy (e.g., melanoma), blood culture (e.g., septicemia), or an MRI scan (e.g., meniscus cartilage damage). In contrast, screening tests are generally more available and cost-effective. Some examples of screening tests are the CBC (anemia), BP (hypertension), Mantoux test (TB), or a UA (UTI). The ideal screening test is one that can detect a disease at an early-enough stage so that it can help to decrease the morbidity and mortality. A good example of a disease with no approved screening test is ovarian cancer. Although the CA-125 and intravaginal ultrasound are widely available, these two tests are not sensitive enough to detect ovarian cancer during the early stages of the disease when it is potentially curable.

**p. 55, last line:**

22. Mantoux test or TB skin test (TST)

**p. 60, lines 20–21:**

III. Correct Answer: Option B

**B)** The tympanic membrane is translucent with intact landmarks

**p. 63, lines 14–15:**

III. Correct Answer: Option A

**A)** Suicide

## CHAPTER 3

**p. 68, para 4, line 8:**

Cisapride (Propulsid; this drug has been pulled from the U.S. market, has been deleted)

**p. 69; Table 3.1, column 1, line 5:**

*Vitamin K antagonist* Warfarin (Coumadin)

**p. 69; Table 3.1, column 2, last 2 lines:**

Metronidazole (Flagyl) PO TID × 10–14 days

Probiotics daily—BID × few weeks, have been deleted from the table

**p. 70, para 2, line 2:**

Vitamin K antagonist (VKA)

**p. 70, Table 3.2:**

The last line of this table has been deleted:

Direct thrombin inhibitors	Dabigatran (Pradaxa) oral; reversal/antidote is idarucizumab (Praxbind)
Factor Xa inhibitor	Rivaroxaban (Xarelto), apixaban (Eliquis)
Heparins protamine sulfate	Heparin, low-molecular-weight heparin (Lovenox); reversal/antidote is

**p. 71; Table 3.3, column 1:**

*Vitamin K antagonist* Warfarin (Coumadin)

Last line of table:

SSRIs

Citalopram (Celexa)                      Avoid doses greater than 40 mg/d; can prolong QT interval  
For patients older than 60 years of age, the maximum dose is 20 mg per day

**p. 72, para 7:**

DIURETICS

Thiazide Diuretics

- Hypertension, HF, edema, diabetes insipidus
  - Hypertension accompanied by osteopenia or osteoporosis
  - Hydrochlorothiazide (HCTZ)
  - Chlorthalidone
  - Indapamide (Lozol)
- Do not combine with lithium (increased risk of lithium toxicity)
- **Contraindication:** Sulfa allergy

**p. 73, para 5, lines 5 and 7:**

- Furosemide (Lasix)
- More potent than thiazides but with shorter duration of action

**p. 76, para 5, line 5:**

- Doxazosin (Cardura)

**p. 77, para 4, lines 8–11:**

- Doxycycline
- Minocycline
- Tetracycline

**p. 78, lines 9–11:**

Doxycycline is first-line treatment for chlamydial infections (i.e., cervicitis, pelvic inflammatory disease [PID], atypical pneumonia) and other atypical bacteria such as ureaplasma or mycoplasma (i.e., nongonococcal urethritis), have been deleted from Pharma Notes.

**p. 80, lines 4–5:**

Therapy is either trimethoprim–sulfa (Bactrim DS), doxycycline or minocycline, and clindamycin. Treat for at least 5 to 10 days.

**p. 82, para 3, line 3:**

- CNS effects (confusion, dizziness, headache, insomnia, seizures)

**p. 86, lines 2–3:**

The sentence “Study data show that 90% of people who say they are allergic to penicillin are not allergic to it” has been deleted from Clinical Pearls.

**p. 87, Pharma Notes, lines 4–5:**

bromide), or both. If not effective, the next step is either a long-acting beta-2 agonist (salmeterol) or a long-acting anticholinergic (tiotropium), or both.

**p. 88, para 4, lines 3–4:**

- Dextromethorphan increases risk of serotonin syndrome (major drug interaction) with MAOIs, selegiline (Eldepryl), SSRIs, and SNRIs.

**p. 89, para 2, lines 7–8:**

Secondary prevention (MI, stroke): 75 to 81 mg PO daily (up to 325 mg/d)

**p. 90:**

EXAM TIPS: The sentence “Aspirin given post-MI or after a stroke/transient ischemic attack is considered secondary prevention” has been deleted

**p. 92, para 4, line 1:**

Prescription Opioids (Fentanyl, Oxycodone, Meperidine, Hydromorphone, Amphetamines)

## CHAPTER 4

**p. 100, line 6:**

Average life expectancy is 78.6 years (a decrease of 0.1 year from 2015; National Center for Health Statistics. Mortality in the United States, 2016, <https://www.cdc.gov/nchs/products/databriefs/db293.htm>)

## CHAPTER 5

**p. 113, para 3, line 2:**

Young adult with new or intermittent loss of vision of one eye (optic neuritis) alone

**p. 119, para 2:**

Add new first bullet:

Check B12 level to rule out pernicious anemia with cheliosis.

**p. 130, line 8:**

(or have not resolved) on follow-up visit, initiate antibiotic treatment.

## CHAPTER 7

**p. 166, second to last line:**

Usually indicative of heart failure or CHF

**p. 167, line 2:**

Always considered abnormal if it occurs after the age of 35 to 40 years

**p. 167, para 2, line 2, A pathological finding, has been deleted**

**p. 167, para 5–6, lines 2, 3, and 6:**

*Physiologic S2*

Best heard over the pulmonic area (or second ICS on the upper left side of sternum); due to splitting of *S4 in the Elderly*

**p. 167, para 7, line 4:**

Look for the location of the murmur (aortic, Erb's Point, or mitral area).

**p. 169, lines 3–4:**

- If AR is due to a diseased aortic valve, the murmur is located at the third ICS by the left sternal border (Erb's Point).
- If AR is due to an abnormal aortic root, the murmur is best heard at the right upper sternal border (aortic area).

**p. 170, para 4, lines 3–4:**

stroke. Newer tool is the CHA2DS2-VASc score.

- CHA2DS2-VASc scoring system (score of 0 is low risk): Score of 2 or more requires

**p. 170, para 5, line 9:**

Warfarin (Coumadin; vitamin K antagonist) for anticoagulation remains the most prescribed therapy and the only recommended option for patients with severe or end-stage chronic kidney disease.

**p. 172, EKG Interpretation:**

Because family nurse practitioners (NPs) function in the primary care area (not the CCU), they very well may be expected to diagnose complex rhythms. The important ones to memorize (EKG appearance) are AF (irregularly irregular rhythm with no p waves; see Figure 7.1), ventricular tachycardia (jagged irregular QRS), and the norms such as sinus rhythm and sinus arrhythmia (see Figure 7.2).

**p. 173, Exam Tip #4:**

AF have many causes, such as alcohol intoxication; CAD, CHF, history of MI, older age, hypertension; stimulants (caffeine, decongestants, cocaine, amphetamines, etc.)

**p. 175, para 4, line 3:**

Elevated serum creatinine and abnormal eGFR (rule out kidney disease)

**p. 181, para 4, lines 7–8:**

Verapamil (Calan SR) daily to BID

Diltiazem (Cardizem CD) daily

**p. 182, line 5:**

*Alpha-1 Blockers/Antagonists*

## CHAPTER 8

**p. 197, para 5, line 3:**

*General Treatment of COPD*

(Zyban) or varenicline (Chantix), patient education, and behavioral counseling

**p. 205, para 3, line 2:**

A patient has acute onset of fever, sore throat, frequent sneezing in early phase accompanied

**p. 211, Table 8.4, line 9:**

Methylxanthines

## CHAPTER 9

**p. 217: much of this entire page was edited:**

## DANGER SIGNALS

### *Hypoglycemia*

Hypoglycemia refers to blood glucose that is less than 50 mg/dL. Complains of weakness, feels like “passing out,” hand tremors, and anxiety. Difficulty concentrating. More common in people with type 1 diabetes mellitus (DM; only 5%-10% of DM is type 1, average of two episodes per week). If severe hypoglycemia is uncorrected, it will progress to coma.

### *Type 1 DM*

School-aged child with recent onset of persistent thirst (polydipsia) with frequent urination (polyuria) and weight loss. Feeling of hunger even though eating increased amount of food; weight loss. May be accompanied by blurred vision (osmotic effect on the lens). Breath has a “fruity” odor. Large amount of ketones in urine. Children may present with diabetic ketoacidosis (DKA); with neurological symptoms, such as drowsiness and lethargy, which can progress to coma. May report a recent viral-like illness before the onset of symptoms. Diagnosis peaks from ages 4 to 6 years and again from ages 10 to 14 years.

### *Thyroid Cancer*

A single thyroid nodule, usually located on the upper half of one lobe in a patient, which may be accompanied by enlarged cervical lymph node lump, swelling, or pain. May complain of hoarseness and problems with swallowing (dysphagia, dyspnea, or cough). Higher incidence in the Asian race. Radiation therapy during childhood for certain cancers (Wilms’ tumor, lymphoma, neuroblastoma) and/or a low-iodine diet increases risk. Higher prevalence in women (3:1). Highest incidence from age 20 to 55 years. Positive family history of thyroid cancer. Metastasis is by lymph route.

### *Pheochromocytoma*

A pheochromocytoma is a rare hormone releasing adrenal tumor. It generally occurs in ages 20 to 50, but can be at any age. Random episodes of headache (can be mild to severe), diaphoresis, and tachycardia accompanied by hypertension. Episodes resolve spontaneously. In between attacks, patient’s vital signs are normal. Triggers include physical exertion, anxiety, stress, surgery, anesthesia, changes in body position, or labor and delivery. Foods high in tyramine (some cheeses, beers, wines, chocolates, dried or smoked meats), as well as monoamine oxidase inhibitors (MAOIs) and stimulant drugs are other triggers.

### **p. 218, Figure 9.1, lines 7:**

Posterior Pituitary  
Antidiuretic hormone and oxytocin

### **p. 218, Figure 9.1, line 15:**

Pineal (melatonin): circadian rhythm

### **p. 221, lines 12–13:**

*Fine needle biopsy:* Used as a diagnostic test for thyroid cancer

### **p. 223, para 5, lines 4 and 7:**

Type 2 DM represents 90% to 95% of U.S. cases. Obesity epidemic is increasing rates of type 2 DM in younger patients.

Overweight or obese (body mass index [BMI] 25 or greater)

### **p. 226, para 6:**

This is a normal physiological event; a hormonal surge in all people, causing an elevation in the FBG occurs daily, early in the morning between 4:00 and 8:00 a.m. Without normal insulin responses, diabetics experience rising fasting blood glucose levels. Healthy people can make the insulin to combat this phenomenon.

**p. 227, para 4, line 6:**

Metformin is preferred for obese patients. According to the 2018 position statement and by the American Diabetes Association it is reported that metformin is neutral for weight change and has a potential for a modest weight loss. Metformin may cause gastrointestinal side effects, such as diarrhea and nausea.

## CHAPTER 10

**p. 235, para 2:**

Benign Variants: The appendix can be located in any quadrant of the abdomen, has been deleted.

**p. 235, para 3, lines 3–6:**

*Psoas/Iliopsoas*

Positive finding if right lower quadrant (RLQ) abdominal pain occurs during maneuver. Indicates irritation to the iliopsoas group of hip flexors in the abdomen. A positive finding suggests peritoneal irritation.

With patient in supine position, have patient raise right leg against the pressure of the professional's hand resistance

With patient on left side, extend the right leg from the hip

**p. 237, lines 2–3:**

with a GERD side effect such as beta-blockers, calcium channel blockers, and alpha-1 or alpha-2 adrenergic receptor agonists.

**p. 241, para 2, lines 5–8:**

- Opiates should be avoided during the acute phase because they make increased intraluminal pressure and promote an ileus
- Increasing fiber intake is not recommended in the acute management of diverticulitis
- Probiotics have been used to prevent recurrences with mixed success

## CHAPTER 11

**p. 249, para 6, line 2:**

Indicative of probable infection with *E. coli*

## CHAPTER 12

**p. 266, line 4:**

understand because his speech is slurred (dysphasia). When instructed to smile and grimace, the

**p. 267, para 5, line 5:**

Check vital signs and neuro status

**p. 271, Exam Tips, Headache treated with high-dosed oxygen is cluster headache, has been deleted**

**p. 271, Exam Tips, lines 9–11:**

Cluster: Only headache accompanied by tearing and nasal congestion; severe pain is behind one eye/one side of head. Occurs several times a day. Spontaneously resolves. Seen more in middle-aged males. Treated with high-dose oxygen (contraindicated in COPD).

## CHAPTER 13

**p. 273, line 7:**

normal bone marrow will respond to blood loss by releasing immature RBCs (reticulocytosis).

**p. 281, para 4, line 6:**

regarding gastric absorption of vitamin B<sub>12</sub>.

## CHAPTER 14

**p. 295, Exam Tips, line 21:**

systemic prostaglandins. COX-2 has mucosal lining of stomach versus COX-1 or NSAIDs.

**p. 295, Exam Tips, last line:**

Aspirin (acetylsalicylic acid) is a type of NSAID. It affects platelets and clotting.

**p. 296, para 2, lines 8–14:**

Continue colchicine 0.6 mg one to two times daily until symptoms resolve. May stop therapy when symptom-free for 2 to 3 days.

After acute phase is over, wait at least 4 to 6 weeks before initiating maintenance treatment.

Patients taking allopurinol should stop during acute phase and restart 4 to 6 weeks after resolution of symptoms.

## CHAPTER 16

**p. 325, last line:**

Patient should be hospitalized if septic or toxic

## CHAPTER 17

**p. 330, para 4, line 8:**

have large ectropions and this is considered a normal finding (due to high estrogen). It can

**p. 345, line 8:**

Alendronate (Fosamax) 10 mg once a day or 70 mg once a week

## CHAPTER 19

**p. 365, para 4, line 2:**

Patient presents with enlarged and painless cervical, axillary, and supraclavicular lymphadenopathy

**p. 370, para 5, line 3:**

Prescribe calcium with vitamin D 1,200 to 1,500 mg daily and vitamin E 400 IU daily

## CHAPTER 23

**p. 403, para 5, line 4:**

It is staged using the tumor-node-metastasis (TNM) staging system (stages I to IV).

**p. 407, para 3, line 7:**

neck. It is an alpha receptor agonist and the bladder neck has numerous alpha receptors.

**p. 410, para 2, line 3:**

The second most common cause is vascular dementia (CVA).

## CHAPTER 27

**p. 453, para 3, line 4 and 10:**

Main deity is Buddha; they believe that physical suffering is an inevitable part of life  
narcotics or medications that alter consciousness

p. 454, para 5, line 6:

(may have to turn on the light switch for the patient). Some observant Jews do not drive or use cell

p. 457, Exam Tips, line 10:

Orthodox Jewish patients may refuse to touch anything powered by electricity (e.g.,

## CHAPTER 30

p. 483, para 2, lines 5–6:

In most states, physicians are the only practitioners who can legally sign a death certificate.

## CHAPTER 31

p. 499, Question 47, answer D:

D) Outpatient anesthesiologist's services

p. 518, Question 155, answer B:

B) Order a liver function profile and CK level

p. 540, Question 297, answer B:

B) 6 to 15 cm in midclavicular line

p. 544, Question 320, lines 3–4:

forehead, cheeks, and chin areas. The patient has been using over-the-counter topical antibiotic gels and medicated soap daily for 6 months without much improvement.

p. 603, Question 652, line 1:

An adult man with a large subungual hematoma on one of his big toes presents as a walk-in patient.

## CHAPTER 32

p. 615, Answer 34, lines 1–2:

29. B) **Lichen sclerosus** Lichen sclerosus is more common in older women. It is a chronic condition that causes thin, white patches of skin usually in the genital area in women

p. 617, Answer 47:

D) Outpatient anesthesiologist's services

p. 632, Answer 155:

B) Order a liver function profile and CK level

p. 653, Answer 297:

B) **6 to 15 cm in the midclavicular line** This range is generally less than 12 cm, but 6 to 15 cm is considered normal for adults.

p. 683, Answer 509, line 6–7: **Only one dose of Tdap is recommended (lifetime), has been deleted.**

p. 687, Answer 540, line 8:

It is best if the patient is asked about whom to contact to relay laboratory or procedure results, only if the patient has signed over authority to leave messages as stated in HIPAA policy of institution.