

Chapter 44. Thyroid Disorders, Self-Assessment Questions

1. The serum T4 level is not a good test for screening and monitoring for thyroid disease because:

- A. The assay is difficult to perform and not available in most clinical laboratories
- B. The results can be affected by alteration in protein binding, making interpretation difficult
- C. It is too sensitive, with a high percent of false positive results
- D. Serum T3 is a better test since it is the active hormone
- E. All of the above

2. The prevalence of hypothyroidism is higher in:

- A. Women
- B. Elderly patients
- C. Patients with other autoimmune endocrine disorders
- D. Patients treated with amiodarone
- E. All of the above are correct

3. What is the target TSH range (mIU/L or μ IU/mL) for patients being treated for hypothyroidism or hyperthyroidism?

- A. Undetectable
- B. 2.5 to 4.5
- C. 1.4 to 2.5
- D. 0.5 to 4
- E. 4 to 5

4. Which of the following is a reasonable choice in treating a patient with newly diagnosed hypothyroidism?

- A. Desiccated thyroid

B. liotrix

C. levothyroxine

D. liothyronine

E. All are reasonable choices

5. Levothyroxine products should not be substituted at refill because:

A. No marketed products are AB rated by the FDA Orange Book.

B. All state regulations prohibit the substitution of narrow therapeutic index drugs.

C. Small differences in bioavailability may result in loss of disease control.

D. Patients will be nonadherent if it is switched.

E. A and B are correct.

6. Patients with mild or subclinical hypothyroidism should be considered for LT₄ therapy if the patient has:

A. A family history of thyroid disease

B. Elevated LDL cholesterol

C. Positive TSHR-AbS antibody

D. A history of hypertension

E. All of the above

7. What is the starting daily dose of LT₄ in an 87 kg (191 lb), 5'4" (163 cm) 32-year old patient, otherwise healthy, with overt hypothyroidism?

A. 25 mcg

B. 50 mcg

C. 75 mcg

D. 100 mcg

E. 150 mcg

8. In a patient receiving stable LT_4 therapy, laboratory monitoring should be performed every _____.

- A. Month
- B. 6 to 8 weeks
- C. 3 months
- D. Year
- E. 5 years

9. Which of the following is a consequence of undertreatment with LT_4 ?

- A. Hypercholesterolemia
- B. Cardiovascular disease
- C. Fatigue
- D. Infertility
- E. All of the above

10. Untreated hyperthyroidism in the elderly can result in:

- A. Mania
- B. Atrial fibrillation
- C. Deafness
- D. Hirsutism
- E. A and D are true

11. Which of the following drugs may be used to quickly relieve symptoms seen in hyperthyroidism?

- A. Radioactive iodine
- B. Propylthiouracil
- C. Methimazole

D. Lithium

E. Propranolol

12. Why is propylthiouracil (PTU) the antithyroid therapy of choice in pregnant patients with Graves disease?

A. It is less hepatotoxic than methimazole (MMI)

B. It may be less teratogenic than MMI

C. It has less risk of causing fetal hypothyroidism than MMI

D. It causes less agranulocytosis in these patients than MMI

E. A and C are true

13. In the setting of antithyroid therapy, which of the following statements regarding agranulocytosis is *not* true?

A. Agranulocytosis occurs in 0.3% of patients.

B. Patients may present with fever and sore throat.

C. Monitoring for agranulocytosis is controversial.

D. Incidence of agranulocytosis is higher in patients treated with propylthiouracil.

E. Agranulocytosis usually occurs within the first 3 months of therapy.

14. Why has use of methimazole increased dramatically in the United States compared to propylthiouracil (PTU) in the treatment of most patients with Graves disease?

A. It may cause fewer adverse effects such as hepatotoxicity than PTU.

B. It has a shorter half-life than PTU.

C. It is renally excreted so no adjustment is needed for liver disease.

D. It blocks the conversion of T_4 to T_3 .

E. A and D are true

15. Why should critically ill patients with nonthyroidal illness (“euthyroid sick syndrome”) and a low serum T_4 level not be treated with LT_4 ?

- A. The alteration in the thyroid axis is an appropriate physiologic response to metabolic stress.
- B. Liothyronine (T_3) is the preferred treatment
- C. There is no intravenous form of LT_4 to administer in the ICU.
- D. The low serum T_4 improves patient outcomes.
- E. A and D are true

Answers

1. B

2. A

3. D

4. C

5. C

6. B

7. D

8. D

9. E

10. B

11. E

12. B

13. D

14. A

15. D