Hypothyroidism:
Overview and
Treatment Options

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1. Which of the following is a significant risk factor for hypothyroidism?
   a. History of autoimmune disease
   b. Male
   c. Below the age of 30 years old
   d. History of pneumonia

2. T₄ is produced in the ________?
   a. Thyroid gland by combining two molecules of diiodotyrosine
   b. Thyroid gland by combining one molecule of monoiodotyrosine with one molecule of diiodotyrosine
   c. Peripheral tissues from breakdown of T₃
   d. Parathyroid glands

3. What 5'-monodeiodinase catalyzes the breakdown of thyroid hormones for intracellular T₃ production?
   a. Type I
   b. Type II
   c. Type III
   d. Type IV

4. What is the most common cause of primary hypothyroidism in the United States?
   a. Iodine deficiency
   b. Hashimoto’s disease
   c. Thyroid malignancy
   d. Sheehan’s syndrome

5. How do barbiturates cause lower levels of thyroid hormones?
   a. Increase thyroid hormone clearance
   b. Block iodide transport into the thyroid
   c. Interrupt hypothalamic-pituitary axis
   d. All of the above

6. When is overt hypothyroidism diagnosed according to these laboratory values?
   a. TSH levels are normal and T₄ is low
   b. TSH levels greater than 4.5 mIU/L and T₄ is normal
   c. TSH levels greater than 10 mIU/L and T₄ is low
   d. TSH levels are low and T₄ is low

7. After euthyroidism levels are achieved, how long until symptoms of hypothyroidism, specifically changes in skin and hair, resolve?
   a. 1-2 weeks
   b. 1-2 months
   c. Up to 6 months
   d. >1 year

8. Initial levothyroxine dosing for a 25 year old female with primary overt hypothyroidism who weighs 75 kg with no other PMH should be:
   a. 125 mcg/day
   b. 50 mcg/day
   c. 300 mcg/day
   d. 25 mcg/day

9. When initiating levothyroxine, what is the usual time frame for adjusting doses?
   a. 1-2 days
   b. 1 week
   c. 2-4 weeks
   d. 4-8 weeks

10. When is the preferred time to administer levothyroxine?
    a. At bedtime
    b. First thing in the morning, at least 30 min before food or drink
    c. Any time during the day, but with food to reduce risk of gastrointestinal adverse reactions
    d. It does not matter; taking it at the same time as all other medications is fine

11. Liothyronine is not recommended as a first-line therapy for the treatment of hypothyroidism because of what reason?
    a. Increased cost
    b. Increased incidence of cardiotoxicity
    c. Lack of therapeutic advantage/benefit
    d. All of the above

12. Natural, desiccated thyroid is more efficacious than synthetic thyroid preparations and should be used as first-line therapy.
    True
    False
13. Which dietary supplement is currently recommended as an adjunct to levothyroxine therapy in the treatment of hypothyroidism?
   a. 3,5,3’-triiodothyroacetic acid (TRIAC)
   b. Over-the-counter “thyroid-enhancing” preparations
   c. Selenium
   d. None of the above

14. Which of these conditions is a complication in untreated overt hypothyroidism with a 70% rate of mortality?
   a. Myxedema coma
   b. Heart failure
   c. Hyponatremia
   d. Psychosis

15. Within how many days after labor should congenital hypothyroidism be treated to avoid severe complications?
   a. 10 days
   b. 30 days
   c. 45 days
   d. 90 days
Participant Information:

AL License #______________

Name___________________________________________________

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9.   A B C D
10.  A B C D
11.  A B C D
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