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PRACTICE QUESTIONS

SCFHS Remote

ENDOC

Endocrinology

EDITION

Original Demo

QUESTIONS

15

ISSUED

October 14, 2026

Before you begin

What this is

15 practice questions for SCFHS Remote **ENDOC**, each with its answer key and an explanation. Answer a question before you read its key - the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, **ENDOC**
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

Licence

Original Mometrix demo. This free sample contains fewer questions than the full paid edition.

QUESTION 1

SINGLE CHOICE

A 64-year-old woman is found on routine testing to have serum calcium 11.8 mg/dL (reference 8.5-10.5), phosphorus 2.1 mg/dL (reference 2.5-4.5), and intact PTH 165 pg/mL (reference 15-65). She takes chlorthalidone for hypertension. She denies bone pain, abdominal pain, polyuria, or mood symptoms. Neck examination is unremarkable. Which of the following is the most likely diagnosis?

- ☐ A Thiazide-induced hypercalcemia
- ☒ B Primary hyperparathyroidism
- ☐ C Humoral hypercalcemia of malignancy (PTHrP-mediated)
- ☐ D Familial hypocalciuric hypercalcemia

ANSWER B

WHY The combination of hypercalcemia, hypophosphatemia, and an elevated (inappropriately non-suppressed) intact PTH is the classic biochemical signature of primary hyperparathyroidism. PTH-driven renal phosphate wasting accounts for the low serum phosphorus. Thiazide-induced hypercalcemia typically suppresses PTH and is generally modest (usually <11 mg/dL) and resolves after discontinuation of the drug. Humoral hypercalcemia of malignancy due to PTHrP would show suppressed PTH. Familial hypocalciuric hypercalcemia (FHH) presents with mild hypercalcemia, normal or mildly elevated PTH, and characteristically low urinary calcium excretion (24-hour urine calcium <100 mg), which is not described here and is generally a milder biochemical picture.

QUESTION 2

SINGLE CHOICE

A 47-year-old man presents with recurrent fasting neuroglycopenic symptoms. During a supervised fast, plasma glucose drops to 38 mg/dL (2.1 mmol/L) with simultaneous insulin 14 μ U/mL (inappropriately elevated), C-peptide 2.8 ng/mL (elevated), and negative sulfonylurea screen. What is the most likely diagnosis?

- ☐ A Exogenous insulin administration
- ☒ B Insulinoma
- ☐ C Adrenal insufficiency
- ☐ D Non-islet cell tumor hypoglycemia

ANSWER B

WHY Whipple's triad is satisfied (symptoms of hypoglycemia, low plasma glucose, relief with glucose). During hypoglycemia, endogenous insulin and C-peptide are both inappropriately elevated and the sulfonylurea screen is negative, which is the classic biochemical signature of an insulinoma. In exogenous insulin administration, insulin is elevated but C-peptide is suppressed (because exogenous insulin suppresses endogenous insulin secretion). In adrenal insufficiency, insulin is appropriately suppressed. Non-islet cell tumor hypoglycemia typically presents with low insulin, low C-peptide, and elevated IGF-2.

QUESTION 3

SINGLE CHOICE

A 34-year-old woman is 8 weeks pregnant. Her TSH is 4.8 mIU/L (reference 0.4-4.0) and free T4 is within the normal non-pregnant reference range. She has no symptoms of hypothyroidism. Which of the following is the most appropriate management?

- ☐ A Start levothyroxine 50 µg daily and recheck TSH in 4 weeks
- ☐ B No treatment is required; only monitor TSH each trimester
- ☒ C Use pregnancy-specific reference ranges and treat if TSH exceeds the pregnancy upper limit
- ☐ D Order anti-thyroid peroxidase antibodies and start levothyroxine only if positive

ANSWER C

WHY TSH reference ranges shift downward in pregnancy because of hCG stimulation of the TSH receptor, so non-pregnant reference ranges underestimate the upper limit of normal for gestational TSH. Endocrine society guidance recommends using pregnancy-specific reference ranges (or, if unavailable, an upper limit of ~4.0 mIU/L) and treating when TSH exceeds the trimester-specific reference. Empirical T4 testing without applying pregnancy-specific ranges may miss subclinical hypothyroidism. A universal antibody screen is not required.

QUESTION 4

SINGLE CHOICE

A 48-year-old man with resistant hypertension (BP 158/96 mmHg on three antihypertensives including an ACE inhibitor) is found to have serum potassium 3.3 mmol/L, plasma aldosterone concentration (PAC) 32 ng/dL, and plasma renin activity (PRA) 0.2 ng/mL/h. The aldosterone-to-renin ratio (ARR) is markedly elevated. Which of the following is the most appropriate next step in evaluation?

- ☐ A Initiate spironolactone empirically and recheck blood pressure in 4 weeks
- ☐ B Proceed directly to adrenal vein sampling without further confirmatory testing
- ☒ C Perform a confirmatory suppression test (e.g., saline infusion or oral salt loading) before subtype imaging
- ☐ D Order a CT of the adrenates and refer for adrenalectomy if a unilateral adenoma is seen

ANSWER C

WHY An elevated ARR is a screening test and must be followed by a confirmatory suppression test (saline infusion, oral salt loading, fludrocortisone suppression, or captopril challenge) to definitively establish autonomous aldosterone secretion. Only after biochemical confirmation should adrenal imaging and, if indicated, adrenal vein sampling be pursued to determine whether primary aldosteronism is unilateral (treated surgically) or bilateral (treated medically with mineralocorticoid receptor antagonists). Empirical spironolactone or jumping to imaging/surgery without confirmation risks misdiagnosis and inappropriate management.

QUESTION 5

MULTIPLE CHOICE

A 42-year-old woman presents with fatigue, weight gain, and cold intolerance. Laboratory evaluation shows TSH 18.4 mIU/L (reference 0.4-4.0) and free T4 0.6 ng/dL (reference 0.8-1.8). She is started on levothyroxine 50 mcg daily. Six weeks later, her TSH is 9.2 mIU/L and free T4 is 0.9 ng/dL. Which of the following are appropriate next steps in management? (Choose two.)

- ☒ **A** Increase the levothyroxine dose and recheck TSH in 6-8 weeks
- ☒ **B** Reassess medication adherence and timing of levothyroxine intake relative to food, supplements, and other medications
- ☐ **C** Add liothyronine (T3) to the regimen because the TSH is still elevated
- ☐ **D** Switch from oral levothyroxine to intravenous levothyroxine

ANSWER A • B

WHY In primary hypothyroidism treated with levothyroxine, the goal is to normalize TSH and free T4 within the reference range. A TSH of 9.2 mIU/L after 6 weeks of therapy with an improving but still suboptimal free T4 indicates the dose is inadequate. Standard management is to increase the levothyroxine dose (typically by 12.5-25 mcg) and recheck TSH in 6-8 weeks. Because levothyroxine absorption is impaired by food, calcium, iron, and certain medications, suboptimal response should also prompt evaluation of how and when the patient takes the medication. Adding liothyronine is not routinely recommended for primary hypothyroidism, and switching to IV levothyroxine is reserved for patients unable to take oral medication (e.g., myxedema coma, malabsorption).

QUESTION 6

SINGLE CHOICE

A 49-year-old man with type 2 diabetes mellitus and a prior inferior myocardial infarction has LDL cholesterol 96 mg/dL on atorvastatin 40 mg. His blood pressure is 128/78 mmHg and HbA1c is 7.4%. According to current secondary prevention guidelines, what is the most appropriate next step in lipid management?

- ☐ A Continue atorvastatin 40 mg and add ezetimibe
- ☐ B Continue atorvastatin 40 mg with no changes
- ☒ C Increase atorvastatin to 80 mg and add ezetimibe
- ☐ D Discontinue statin and start a fibrate

ANSWER C

WHY In very high-risk patients with established atherosclerotic cardiovascular disease (including prior MI), current guidelines recommend an LDL-C goal of <70 mg/dL, with a goal of <55 mg/dL in many recent recommendations. Adding ezetimibe to high-intensity statin (atorvastatin 40-80 mg or rosuvastatin 20-40 mg) provides an additional ~20% LDL reduction and is supported by outcome data (IMPROVE-IT). Fibrates have not shown cardiovascular benefit when added to statins in patients with diabetes and prior MI.

QUESTION 7

SINGLE CHOICE

A 39-year-old woman undergoes total thyroidectomy for a 4.0-cm papillary thyroid carcinoma with microscopic extrathyroidal extension into perithyroidal soft tissue, without lymphovascular invasion, and with 2 of 6 central compartment nodes positive for metastasis (largest focus 0.3 cm, no extranodal extension). No gross residual disease remains. According to the 2015 ATA risk stratification system, into which postoperative risk category does she fall?

- ☐ A Low risk
- ☒ B Intermediate risk
- ☐ C High risk
- ☐ D Cannot be classified until postoperative stimulated thyroglobulin is measured
- ☐ E Very low risk

ANSWER B

WHY Under the 2015 ATA guidelines, intermediate risk includes any of: microscopic extrathyroidal extension, cervical lymph node metastases (>5 nodes, or any node <3 cm with extranodal extension, or any node >3 cm), or aggressive histologic variants. This patient has microscopic extrathyroidal extension and 2 metastatic central nodes, placing her in the intermediate-risk category. Routine RAI ablation is generally recommended for intermediate-risk DTC.

QUESTION 8

SINGLE CHOICE

A 55-year-old man undergoes abdominal CT for evaluation of right flank pain. A 2.3-cm right adrenal mass is discovered incidentally. He has no history of hypertension, no prior malignancy, and is not on any glucocorticoid medication. His blood pressure is 128/78 mmHg and BMI is 27 kg/m². The mass has a CT attenuation value of 8 Hounsfield units with absolute contrast washout of 72% at 10 minutes. Which of the following is the most appropriate next step in management?

- ☐ A Immediate adrenalectomy because the lesion exceeds 2 cm
- ☐ B No further work-up or imaging is required
- ☒ C Biochemical evaluation for pheochromocytoma and, if negative, no further imaging is needed because the imaging features are consistent with a benign adenoma
- ☐ D Positron emission tomography (PET) with 18F-FDG to exclude malignancy

ANSWER C

WHY For an adrenal incidentaloma with benign imaging features (homogeneous, ≤ 10 Hounsfield units on unenhanced CT, and/or contrast washout $\geq 50\%$ on delayed imaging), the lesion is consistent with a benign lipid-rich adenoma. The appropriate management is to confirm the absence of subclinical hormonal excess. Although the lesion appears benign on imaging, guidelines (including those of the Endocrine Society) recommend biochemical evaluation of every adrenal incidentaloma to exclude pheochromocytoma (and, in many cases, subclinical Cushing syndrome and primary aldosteronism if hypertensive). If the imaging characteristics already strongly suggest a benign adenoma, no follow-up imaging is required after a negative biochemical work-up. Immediate adrenalectomy is not indicated based on size alone (size > 4 cm or imaging features suggestive of malignancy are the usual surgical triggers). PET/CT is reserved for lesions with indeterminate or suspicious imaging features.

QUESTION 9

SINGLE CHOICE

A 60-year-old man with no prior history of endocrinopathy undergoes abdominal CT for abdominal pain. A 2.1-cm left adrenal mass is discovered incidentally. CT attenuation is 8 Hounsfield units (HU). Which of the following is the most appropriate interpretation of the imaging?

- ☐ A The mass is likely a pheochromocytoma and requires metanephrine testing before any further workup
- ☒ B The findings are consistent with a lipid-rich adenoma and no further imaging is required
- ☐ C The mass is suspicious for adrenocortical carcinoma and adrenalectomy is indicated
- ☐ D The mass requires immediate biopsy to exclude metastatic disease

ANSWER B

WHY A CT attenuation value of ≤ 10 Hounsfield units on a non-contrast (or washout protocol) is highly suggestive of a lipid-rich benign adrenal adenoma. Such lesions < 4 cm with benign imaging features require only biochemical evaluation (cortisol, catecholamines/metanephrines, and aldosterone/renin if hypertensive) but not further dedicated imaging. Values > 10 HU, heterogeneity, irregular margins, or higher size raise concern for malignancy or pheochromocytoma. Biopsy of an adrenal mass is contraindicated without first excluding pheochromocytoma and is rarely required.

QUESTION 10

SINGLE CHOICE

A 34-year-old woman who is 28 weeks pregnant has a 1-hour 50-g glucose challenge test result of 162 mg/dL. Her pre-pregnancy BMI was 33 kg/m². What is the most appropriate next step in the evaluation?

- ☐ A Order a fasting plasma glucose only
- ☐ B Order HbA1c only
- ☒ C Proceed to a 3-hour 100-g oral glucose tolerance test
- ☐ D Diagnose gestational diabetes mellitus and begin dietary therapy

ANSWER C

WHY When the 1-hour 50-g screening test exceeds the institutional threshold (commonly 130, 135, or 140 mg/dL), the next step is the diagnostic 3-hour 100-g oral glucose tolerance test using Carpenter-Coustan or NDDG criteria. A single abnormal screening value does not establish gestational diabetes. HbA1c and fasting glucose alone are not the recommended diagnostic approach for GDM.

QUESTION 11

SINGLE CHOICE

A 26-year-old man presents with bitemporal hemianopsia, headaches, and decreased libido. MRI of the pituitary reveals a 2.2-cm macroadenoma with suprasellar extension. Serum prolactin is 480 ng/mL (reference <25). Which of the following is the most appropriate initial management?

- ☐ A Transsphenoidal surgical resection of the adenoma
- ☒ B Cabergoline titrated to normalize prolactin and shrink the tumor
- ☐ C Fractionated external beam radiotherapy
- ☐ D Observation with serial MRI every 6 months

ANSWER B

WHY Even when a prolactinoma is large enough to cause mass effect (macroadenoma with visual field defects), the first-line treatment is a dopamine agonist such as cabergoline. Dopamine agonists effectively shrink the tumor and normalize prolactin in the majority of cases. Surgery is reserved for tumors that fail to respond to or are intolerant of medical therapy, or for those causing acute visual compromise from apoplexy. Radiotherapy is reserved for refractory disease.

QUESTION 12

MULTIPLE CHOICE

A 72-year-old woman with a history of fragility hip fracture is being evaluated for secondary osteoporosis. Which of the following laboratory studies are appropriate as part of the initial workup? (Choose two.)

- ☒ **A** Serum calcium and 25-hydroxyvitamin D
- ☐ **B** Serum TSH
- ☐ **C** Fasting plasma glucose and HbA1c
- ☒ **D** Serum PTH and 24-hour urine calcium
- ☐ **E** Serum IGF-1 and growth hormone stimulation test

ANSWER A - D

WHY The initial laboratory evaluation for secondary osteoporosis includes serum calcium, 25-hydroxyvitamin D, phosphorus, creatinine, CBC, TSH, and 24-hour urine calcium, plus consideration of PTH, 24-hour urine cortisol, sex steroids, and markers of myeloma (SPEP) when clinically indicated. Serum PTH and 24-hour urine calcium help distinguish osteoporotic subtypes (high-turnover hyperparathyroid vs low-turnover osteomalacia vs hypercalciuria). TSH is part of standard workup. Routine HbA1c screening and IGF-1/GH testing are not part of routine osteoporosis workup absent specific clinical indications.

QUESTION 13

SINGLE CHOICE

A 31-year-old woman who is 9 weeks pregnant is found to have TSH 6.8 mIU/L (reference 0.4-4.0), free T4 1.0 ng/dL (within the non-pregnant reference range), and positive anti-TPO antibodies. She is asymptomatic. Which of the following is the most appropriate next step?

- ☐ A Reassure and repeat thyroid function tests in the second trimester
- ☒ B Initiate levothyroxine therapy
- ☐ C Initiate methimazole
- ☐ D Initiate lithium therapy

ANSWER B

WHY In pregnancy, the upper reference limit for TSH is lower (typically <4.0 mIU/L, with many guidelines recommending <2.5 in the first trimester or use of trimester-specific ranges). A TSH above the pregnancy-specific reference range with positive anti-TPO antibodies indicates subclinical hypothyroidism in pregnancy, which is associated with adverse maternal and fetal outcomes. Levothyroxine is the treatment of choice to maintain TSH within the trimester-specific reference range. Methimazole is teratogenic (aplasia cutis, choanal/esophageal atresia) and is avoided in the first trimester. Lithium has no role in hypothyroidism.

QUESTION 14

SINGLE CHOICE

A 38-year-old man with confirmed primary adrenal insufficiency on hydrocortisone 15 mg morning and 5 mg afternoon, plus fludrocortisone 0.1 mg daily, develops fever (39 °C) and productive cough. He is alert and able to take oral fluids. Which of the following is the most appropriate adjustment of glucocorticoid therapy?

- ☒ **A** Double the usual oral dose until recovery, and seek medical care if vomiting occurs
- ☐ **B** Stop oral hydrocortisone and start intravenous hydrocortisone 50 mg every 6 hours
- ☐ **C** Continue current doses and add oral ibuprofen for fever
- ☐ **D** Switch to oral dexamethasone 4 mg daily until recovery

ANSWER A

WHY In primary adrenal insufficiency, minor to moderate physiologic stress (fever, infection, minor procedure) requires doubling or tripling the usual glucocorticoid dose until recovery (sick-day rules). Parenteral hydrocortisone is reserved for severe illness, surgery, trauma, or vomiting/diarrhea that precludes oral intake. Dexamethasone is not appropriate for adrenal crisis because it lacks mineralocorticoid activity and produces unreliable glucocorticoid replacement. NSAIDs do not replace glucocorticoid stress dosing.

QUESTION 15

SINGLE CHOICE

A 55-year-old woman is found on routine testing to have a serum calcium of 11.2 mg/dL (reference 8.5-10.5) with a PTH of 92 pg/mL (reference 15-65). She is asymptomatic. Which of the following is the most appropriate next step in evaluation?

- ☐ A Perform a sestamibi scan of the parathyroid glands
- ☒ B Obtain 24-hour urinary calcium, phosphate, creatinine, and serum 25-hydroxyvitamin D
- ☐ C Proceed directly to parathyroidectomy
- ☐ D Measure serum PTH-related peptide (PTHrP)

ANSWER B

WHY An elevated calcium with an inappropriately elevated or non-suppressed PTH is consistent with primary hyperparathyroidism. Before imaging or surgical referral, the diagnostic workup should include confirmation with a repeat calcium, plus measurement of ionized calcium, serum 25-hydroxyvitamin D (to exclude vitamin D deficiency contributing to secondary hyperparathyroidism), creatinine, and a 24-hour urine collection for calcium (to identify familial hypocalciuric hypercalcemia when urine calcium is low) and creatinine. Sestamibi scanning is used for surgical localization after the biochemical diagnosis is confirmed and surgery is planned. PTHrP is used in the workup of malignancy-associated hypercalcemia, in which PTH is suppressed. Parathyroidectomy is indicated only after a complete biochemical and clinical assessment confirms primary hyperparathyroidism meeting surgical criteria.