



МИНИСТЕРСТВО НАУКИ, ВЫСШЕГО ОБРАЗОВАНИЯ И ИННОВАЦИИ
КЫРГЫЗСКОЙ РЕСПУБЛИКИ
ОШСКИЙ МЕЖДУНАРОДНЫЙ МЕДИЦИНСКИЙ УНИВЕРСИТЕТ


УТВЕРЖДЕНО 
Председатель УМС ОММУ
_____ к.б.н. Орунбаева Б.М.
От 12 сентября 2025г.

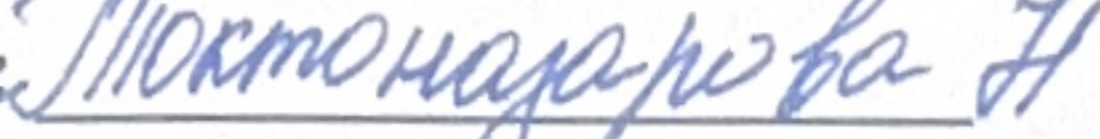
РАССМОТРЕНО 
на заседании кафедры,
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Зав.каф., к.м.н. Абдимомунова Б.Т.


ФОНД ТЕСТОВЫХ ЗАДАНИЙ

Для итогового контроля по дисциплине
«Endocrinology»
на 2025-2026 учебный год
Направление: Лечебное дело (GM)
Курс – 4, семестр - 8

Наименование дисциплины	Всего	Кредит	Аудиторные занятия		СРС
			Лекции	Практические	
«Endocrinology»	60	2	12	18	30
Количество вопросов	150				

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Подпись

Ош, 2025

Endocrinology test

- Which sign on neck inspection is most characteristic of diffuse toxic goiter?
 - Neck rigidity
 - Asymmetric enlargement of the thyroid
 - Diffuse, symmetric enlargement; pulsation; bruits**
 - Local nodule with fixation
- On skin inspection in a patient with hypothyroidism you would expect:
 - Warm, moist skin
 - Cold, dry, coarse skin**
 - Hyperpigmentation in skin folds
 - Acne and seborrhea
- Which facial sign is characteristic of hyperthyroidism?
 - Myxedematous eyelid edema
 - Ptosis of the upper eyelid
 - Exophthalmos and widening of the palpebral fissure**
 - Hyperpigmentation of the lips
- On inspection of the limbs in a patient with hypercortisolism you can see:
 - Hyperpigmentation of the palms
 - Purple striae on the abdomen and thighs**
 - Muscle hypotonia
 - Hyperreflexia
- Which sign indicates hypoparathyroidism on inspection?
 - Tetanic convulsions, positive Chvostek sign**
 - Hypertension
 - Hyperhidrosis
 - Hyperlactation
- On breast inspection in a woman with hyperprolactinemia you would expect:
 - Glandular atrophy
 - Galactorrhea on expression**
 - Enlargement of lymph nodes
 - Areolar hyperpigmentation
- Which sign on inspection indicates acromegaly?
 - Decrease in hand size
 - Thickening of facial soft tissues and enlargement of the hands**
 - Pallor of the skin
 - Facial nerve palsy
- On inspection of a patient with type 1 diabetes you may find:
 - Hyperpigmentation of the neck
 - Ketoacidotic respiratory changes (puffy face)
 - Neuropathic changes of the feet: dryness, cracks**
 - Hypersalivation
- Which inspection sign is characteristic of pheochromocytoma?
 - Persistent bradycardia
 - Paroxysmal episodes of hypertension, sweating, tachycardia**
 - Chronic hypotension
 - Skin hyperpigmentation

10. Nodular colloid goiter on neck inspection most often appears as:
 - A. Multiple small nodules, mobile with swallowing
 - B. A hard immobile nodule with fixation**
 - C. A pulsating nodule
 - D. No changes

11. Which sign on inspection indicates hypogonadism in a man?
 - A. Increased muscle mass
 - B. Testicular atrophy and decreased male-pattern hair**
 - C. Absence of gynecomastia
 - D. Increased beard growth

12. On inspection in a patient with hyperparathyroidism you may observe:
 - A. Nephrolithiasis by inspection
 - B. Bone deformities, tenderness on palpation of bones**
 - C. Hypotension
 - D. Hypoglycemia

13. Which inspection test helps detect sympathetic activation in hyperthyroidism?
 - A. Test for skin dryness
 - B. Assessment of tremor with the outstretched hand**
 - C. Measurement of waist circumference
 - D. Hearing assessment

14. On inspection in a woman with polycystic ovary syndrome (PCOS) one often observes:
 - A. Male-pattern hypotrichosis
 - B. Hirsutism, acne, android-type obesity**
 - C. Breast atrophy
 - D. Galactorrhea

15. Which sign on inspection indicates chronic adrenal insufficiency Addison disease?
 - A. Hyperpigmentation of skin and mucous membranes**
 - B. Hypertension
 - C. Hyperglycemia
 - D. Hyperlactation

16. On inspection of the hands in a patient with thyrotoxicosis you may notice:
 - A. Brittle nails
 - B. Warm, moist palms and increased sweating**
 - C. Cyanosis of the fingertips
 - D. Muscle atrophy of the hand

17. Which inspection sign indicates a prolactinoma in a woman?
 - A. Oligomenorrhea or amenorrhea and galactorrhea**
 - B. Increased menstrual bleeding
 - C. Uterine enlargement
 - D. Hypersalivation

18. Which laboratory finding is most diagnostic for primary hypothyroidism?
 - A. Low TSH, high free T4
 - B. Normal TSH, low free T4
 - C. High TSH, low free T4**
 - D. Elevated anti-TSH receptor antibodies

19. Best initial test to evaluate suspected Cushing syndrome?

- A. Morning serum cortisol
B. Late-night salivary cortisol
C. Random plasma ACTH
D. 24-hour urinary catecholamines
20. Which pattern suggests primary hyperparathyroidism?
A. Elevated serum calcium, low phosphate, elevated PTH
B. Low calcium, high PTH, high phosphate
C. Normal calcium, suppressed PTH
D. Elevated calcium with suppressed PTH and low vitamin D
21. Most specific laboratory marker for insulinoma during hypoglycemia?
A. Elevated fasting glucose
B. High insulin with high C-peptide during hypoglycemia
C. Low insulin and high ketones
D. Elevated proinsulin only
22. Which test is preferred to confirm primary aldosteronism?
A. Plasma renin activity alone
B. Serum potassium measurement
C. Plasma aldosterone to renin ratio (ARR)
D. 24-hour urinary free cortisol
23. Laboratory pattern in secondary hypothyroidism due to pituitary disease?
A. High TSH, high free T4
B. Low or inappropriately normal TSH with low free T4
C. Suppressed TSH with high free T4
D. Elevated anti-TPO antibodies only
24. Most useful lab test to evaluate suspected prolactinoma?
A. Serum estradiol only
B. Serum prolactin level
C. Serum TSH
D. 24-hour urinary metanephrines
25. Which combination indicates primary adrenal insufficiency?
A. High cortisol, low ACTH
B. Low cortisol, high ACTH
C. Low cortisol, low ACTH
D. High cortisol, high ACTH
26. Best laboratory approach to diagnose Graves disease?
A. Serum cortisol measurement
B. Low TSH, high free T4, positive TSH receptor antibodies
C. Elevated PTH and calcium
D. High prolactin only
27. Which test helps differentiate type 1 from type 2 diabetes in unclear cases?
A. Fasting glucose only
B. Oral glucose tolerance test only
C. Autoantibodies (GAD, IA-2) and C-peptide
D. Hemoglobin electrophoresis
28. Laboratory sign of vitamin D deficiency affecting endocrine calcium balance?
A. High serum calcium, low PTH
B. Low 25-OH vitamin D, low/normal calcium, elevated PTH

- C. Elevated 1,25-(OH)₂ vitamin D only
D. Low phosphate with suppressed PTH
29. Which lab test is most appropriate to screen for pheochromocytoma?
A. Serum cortisol
B. Serum aldosterone
C. Plasma free metanephrines or 24-hour urinary fractionated metanephrines
D. Serum TSH
30. Interpretation of elevated IGF-1 with normal random GH suggests:
A. GH deficiency
B. Acromegaly (GH excess)
C. Hypopituitarism
D. Primary hypothyroidism
31. Which lab abnormality is typical in untreated primary hypothyroidism affecting lipids?
A. Low LDL cholesterol
B. Elevated total cholesterol and LDL
C. Low triglycerides only
D. Elevated HDL only
32. Most reliable test to assess long-term glycemic control?
A. Fasting glucose
B. Random glucose
C. Hemoglobin A1c
D. Serum insulin
33. Which lab pattern suggests ectopic ACTH production?
A. Low ACTH, high cortisol
B. Very high ACTH with high cortisol and lack of suppression on high-dose dexamethasone
C. Low cortisol with high ACTH suppressed by dexamethasone
D. Elevated aldosterone only
34. Best initial laboratory test for suspected hypogonadism in men?
A. Serum prolactin only
B. Morning total testosterone with LH and FSH
C. Estradiol level only
D. Serum cortisol
35. A 42-year-old woman presents with weight loss, heat intolerance, palpitations, and a diffusely enlarged, soft thyroid with a systolic bruit. TSH is suppressed. Which is the most likely diagnosis?
A. Graves disease
B. Subacute (de Quervain) thyroiditis
C. Toxic multinodular goiter
D. Hashimoto thyroiditis
36. A 55-year-old man has a solitary, firm, non-tender thyroid nodule fixed to surrounding tissue. He reports recent hoarseness. Best next step?
A. Repeat TSH in 6 months
B. Ultrasound of the thyroid and fine-needle aspiration (FNA)
C. Radioactive iodine uptake scan
D. Start levothyroxine suppression therapy
37. A 30-year-old woman develops fever, severe anterior neck pain, and a tender, enlarged thyroid after a viral illness. Labs show elevated ESR and transient thyrotoxicosis. Most likely diagnosis?
A. Riedel thyroiditis

- B. Subacute (de Quervain) thyroiditis
C. Silent (painless) thyroiditis
D. Graves disease
38. A 65-year-old woman with long-standing multinodular goiter now has progressive dysphagia and dyspnea. Imaging shows retrosternal extension. Best management step?
A. Observation only
B. Radioactive iodine ablation immediately
C. Surgical referral for thyroidectomy
D. Start antithyroid drugs
39. A 28-year-old postpartum woman has mild thyrotoxicosis followed by hypothyroid symptoms 3 months later. Anti-TPO antibodies are positive. Most likely cause?
A. Graves disease
B. Subacute thyroiditis
C. Postpartum (silent) thyroiditis
D. Toxic adenoma
40. A patient with long-standing Hashimoto thyroiditis has a rapidly enlarging, painful neck mass and systemic symptoms. Biopsy shows pleomorphic spindle cells and anaplastic features. Diagnosis?
A. Papillary thyroid carcinoma
B. Follicular adenoma
C. Anaplastic thyroid carcinoma
D. Medullary thyroid carcinoma
41. A 45-year-old man has elevated serum calcitonin and a thyroid mass on ultrasound. Family history reveals relatives with medullary thyroid carcinoma. Which test is indicated next?
A. Serum thyroglobulin level
B. RET proto-oncogene genetic testing
C. Radioactive iodine uptake scan
D. Anti-TPO antibody titer
42. A 50-year-old woman with hypothyroid symptoms has a TSH of 8.5 mIU/L and low free T4. She is pregnant. Best management?
A. Defer treatment until after delivery
B. Start levothyroxine and adjust dose to maintain trimester-specific TSH targets
C. Start methimazole
D. Give radioactive iodine therapy
43. A 37-year-old man has a cold (non-functioning) thyroid nodule on radionuclide scan. FNA cytology is indeterminate. Next best step?
A. Repeat radionuclide scan in 1 year
B. Diagnostic lobectomy or molecular testing of FNA sample
C. Start levothyroxine suppression therapy
D. Observe without intervention
44. A patient presents with signs of thyrotoxicosis and very high fever, tachycardia, and altered mental status. He has known Graves disease. Immediate management should include:
A. Oral levothyroxine
B. Beta-blocker, high-dose antithyroid drug, glucocorticoids, and supportive care for thyroid storm
C. Radioactive iodine therapy as first-line emergency treatment
D. Observation and outpatient follow-up
45. A 22-year-old woman has a small, firm, painless thyroid nodule. FNA shows papillary carcinoma. Which feature predicts a worse prognosis?

- A. Age under 45 years
 - B. Tumor confined to thyroid capsule with no invasion
 - C. **Extrathyroidal extension and distant metastases**
 - D. Classic papillary histology without vascular invasion
46. A patient with suspected iodine deficiency presents with diffuse goiter and normal TSH but low urinary iodine. Which public health measure is most effective?
- A. **Universal salt iodization**
 - B. Routine levothyroxine for all goiter cases
 - C. Mass radioactive iodine therapy
 - D. High-dose vitamin D supplementation
47. A 60-year-old woman treated with radioactive iodine for Graves disease develops hypothyroidism 6 months later. Which lab pattern is expected?
- A. Low TSH, high free T4
 - B. **High TSH, low free T4**
 - C. Normal TSH and free T4
 - D. Elevated calcitonin
48. A 40-year-old man with long-standing hyperthyroidism has atrial fibrillation. Which consideration is most important before definitive therapy?
- A. Ignore cardiac status; treat thyroid first
 - B. **Control rate with beta-blockers and assess anticoagulation needs before definitive therapy**
 - C. Start high-dose levothyroxine
 - D. Immediate thyroidectomy without cardiac optimization
49. A newborn screening shows elevated TSH. On exam the infant is hypotonic, jaundiced, and has a large anterior fontanelle. Most appropriate action?
- A. Repeat screening at 6 months
 - B. **Start levothyroxine promptly and confirm diagnosis with serum tests**
 - C. No treatment; observe for spontaneous resolution
 - D. Begin methimazole
50. A 48-year-old woman with long-standing hypothyroidism on levothyroxine reports fatigue and weight gain despite adherence. TSH is elevated. Which is the best next step?
- A. **Increase levothyroxine dose and recheck TSH in 6–8 weeks**
 - B. Stop levothyroxine immediately
 - C. Start methimazole
 - D. Order thyroid ultrasound only
51. A 34-year-old woman with Graves disease is planning pregnancy. Which antithyroid medication is preferred during the first trimester?
- A. Radioactive iodine therapy
 - B. Methimazole throughout pregnancy
 - C. **Propylthiouracil (PTU) in the first trimester, then consider switching to methimazole**
 - D. No treatment until after delivery
52. Which laboratory test is most informative when suspecting acromegaly?
- A. **Elevated IGF-1 (insulin-like growth factor 1)**
 - B. Prolactin level
 - C. Cortisol level
 - D. Oral glucose tolerance test without GH measurement
53. Which test confirms acromegaly when IGF-1 is equivocal?
- A. TSH level
 - B. **Oral glucose tolerance test with measurement of GH suppression**

- C. 24-hour cortisol profile
D. Thyroid ultrasound
54. Which sign is most common in women with a prolactinoma?
A. Hypertrichosis
B. Cushingoid features
C. Oligomenorrhea or amenorrhea
D. Hypoglycemia
55. What is expected in central diabetes insipidus on clinical assessment?
A. Increased aldosterone
B. Elevated insulin
C. Hyperprolactinemia
D. Polydipsia with dilute urine and low urine specific gravity
56. Which imaging modality is preferred when a pituitary adenoma is suspected?
A. MRI of the sella turcica with contrast
B. Skull X-ray in two projections
C. Head ultrasound
D. Chest CT
57. Which hormone is most often involved with macroadenomas that cause mass effect and hypopituitarism?
A. TSH
B. Prolactin (including stalk effect)
C. Cortisol
D. Parathyroid hormone
58. Which test differentiates central from nephrogenic diabetes insipidus?
A. Morning cortisol
B. Desmopressin (DDAVP) challenge with urine response assessment
C. Renal ultrasound
D. Oral glucose tolerance test
59. Which medication is first-line therapy for prolactinoma?
A. Levothyroxine
B. Metformin
C. Corticosteroids
D. Dopamine agonist (cabergoline or bromocriptine)
60. Which clinical feature is characteristic of childhood somatotropin (GH) deficiency?
A. Precocious puberty
B. Macrocephaly
C. Accelerated growth
D. Slow linear growth and reduced growth velocity
61. What hormonal profile is expected with an empty sella syndrome that has preserved pituitary function?
A. Severe deficiency of all pituitary hormones
B. Elevated IGF-1
C. Normal pituitary and peripheral hormone levels
D. Hyperprolactinemia
62. Which test is used to assess somatotropic activity in adults when GH deficiency is suspected?
A. Prolactin level
B. Liver ultrasound

- C. Stimulation tests (e.g., insulin tolerance test)
D. 24-hour cortisol profile
63. Which syndrome is associated with RET mutations and endocrine tumors?
A. Cushing syndrome
B. Turner syndrome
C. MEN2A/2B (RET) — medullary thyroid carcinoma and pheochromocytoma
D. Type 1 diabetes
64. What is the effect of prolonged high-dose glucocorticoid therapy on the hypothalamic-pituitary-adrenal axis?
A. Stimulation of ACTH
B. Increased GH secretion
C. Increased prolactin
D. Suppression of the HPA axis with risk of secondary adrenal insufficiency
65. Which marker is used to monitor treatment response in acromegaly?
A. TSH level
B. IGF-1 and GH suppression on glucose testing
C. Serum calcium
D. Serum albumin
66. What laboratory pattern is expected in syndrome of inappropriate ADH secretion (SIADH)?
A. Hyponatremia
B. Hyperglycemia
C. Hyponatremia with low plasma osmolality
D. Elevated aldosterone
67. Which treatment is indicated for a large macroadenoma compressing the optic chiasm and refractory to medical therapy?
A. Conservative observation
B. Radiotherapy as first-line
C. Hormone replacement only
D. Transsphenoidal neurosurgical resection
68. Which evaluation should be performed when hypopituitarism is suspected after traumatic brain injury?
A. Only cardiac ultrasound
B. Comprehensive assessment of anterior pituitary hormones (morning cortisol, TSH/FT4, LH/FSH, prolactin, IGF-1)
C. Only blood glucose
D. Only urine electrolytes
69. Which test alone can diagnose diabetes without fasting?
A. Hemoglobin A1c $\geq 6.5\%$
B. Fasting plasma glucose 110 mg/dL
C. 2-hour OGTT 150 mg/dL
D. Random glucose 150 mg/dL
70. Which fasting glucose value meets diagnostic criteria for diabetes?
A. 100 mg/dL
B. 126 mg/dL
C. 110 mg/dL
D. 95 mg/dL
71. Which 2-hour OGTT value (75 g) defines diabetes?

- A. 180 mg/dL
 - B. 140 mg/dL
 - C. 200 mg/dL**
 - D. 160 mg/dL
72. A patient with classic hyperglycemia symptoms and random glucose 210 mg/dL — next step?
- A. Repeat OGTT immediately
 - B. Measure A1c only
 - C. Observe without treatment
 - D. Diagnose diabetes (no second test required if symptoms present)**
73. Which A1c range defines prediabetes?
- A. 5.7–6.4%**
 - B. <5.7%
 - C. ≥6.5%
 - D. 4.5–5.0%
74. Which fasting glucose range indicates impaired fasting glucose (prediabetes)?
- A. 70–99 mg/dL
 - B. 100–125 mg/dL**
 - C. ≥126 mg/dL
 - D. <70 mg/dL
75. Best initial test to screen asymptomatic adults for diabetes?
- A. 2-hour OGTT for everyone
 - B. Random glucose annually
 - C. A1c or fasting plasma glucose based on risk**
 - D. Continuous glucose monitoring
76. Which condition can falsely lower measured A1c?
- A. Iron deficiency anemia
 - B. Chronic hyperglycemia
 - C. Hemolytic anemia or recent blood loss**
 - D. Renal failure only
77. When should pregnant women be screened for overt diabetes at first prenatal visit?
- A. Never
 - B. At 28 weeks only
 - C. At first prenatal visit if risk factors present**
 - D. After delivery
78. Which test is standard for diagnosing gestational diabetes between 24–28 weeks?
- A. A1c only
 - B. Random glucose only
 - C. 75 g OGTT or 2-step approach per local protocol**
 - D. Fasting insulin level
79. Which antibody testing helps identify LADA (latent autoimmune diabetes in adults)?
- A. Anti-TSH receptor
 - B. Anti-GAD (glutamic acid decarboxylase) (correct)**
 - C. Anti-TPO
 - D. Anti-insulin only
80. Which feature suggests MODY rather than type 1 or 2 diabetes?
- A. Obesity and insulin resistance
 - B. Rapid DKA at onset

- C. Strong family history of early-onset diabetes with autosomal dominant pattern
D. Positive anti-GAD antibodies
81. How often to repeat testing in a patient with borderline abnormal A1c (5.8%)?
A. Never repeat
B. Repeat in 3–6 months and counsel on lifestyle
C. Repeat in 10 years
D. Immediate insulin therapy
82. Which laboratory finding supports diagnosis of hyperosmolar hyperglycemic state (HHS) rather than DKA?
A. High ketones and low bicarbonate
B. Very high plasma glucose (>600 mg/dL) with minimal ketonemia and high osmolality
C. Low glucose only
D. Normal osmolality
83. Which point-of-care test is acceptable for screening but requires lab confirmation if positive?
A. Home urine dipstick only
B. Point-of-care A1c (if NGSP-certified) or capillary glucose
C. Continuous interstitial glucose without confirmation
D. Salivary glucose test
84. Which comorbidity commonly mandates earlier diabetes screening?
A. Low BMI only
B. Young age only
C. Hypertension, dyslipidemia, or history of gestational diabetes
D. Normal pregnancy history
85. A patient with suspected diabetes has A1c 6.6% and FPG 118 mg/dL — interpretation?
A. No diabetes; both normal
B. Diabetes (A1c diagnostic); confirm per guidelines if asymptomatic
C. Prediabetes only
D. Type 1 diabetes confirmed
86. Which triad best defines diabetic ketoacidosis?
A. Hyperglycemia, ketonemia, metabolic acidosis
B. Hyperglycemia, hyperosmolality, no ketones
C. Hypoglycemia, lactic acidosis, hypotension
D. Hyperkalemia, hypoglycemia, alkalosis
87. Most common precipitant of DKA in adults?
A. Excess insulin dose
B. Infection or intercurrent illness
C. Hypothyroidism
D. High-fat diet
88. Key initial management step for DKA in the emergency room?
A. Immediate insulin bolus without fluids
B. Aggressive IV fluid resuscitation and electrolyte assessment
C. Oral glucose administration
D. Immediate hemodialysis
89. Which lab value distinguishes HHS from DKA?
A. Serum ketones markedly elevated in HHS
B. Plasma glucose often >600 mg/dL and very high osmolality in HHS
C. Low serum sodium in HHS only

- D. Severe metabolic acidosis in HHS only
90. Most dangerous immediate risk in severe hypoglycemia?
A. Chronic neuropathy
B. Seizure or loss of consciousness leading to aspiration
C. Hyperosmolarity
D. Hyperkalemia
91. First-line treatment for severe hypoglycemia with unconscious patient?
A. Oral glucose gel
B. Subcutaneous insulin
C. IV 50% dextrose (or IM glucagon if IV not available)
D. IV potassium
92. Which electrolyte must be closely monitored after starting insulin in DKA?
A. Calcium
B. Potassium
C. Phosphate only after 72 hours
D. Magnesium only
93. A patient with DKA has serum potassium 5.8 mmol/L. Next step before insulin?
A. Give large potassium bolus immediately
B. Start insulin but monitor; do not give potassium unless levels fall or ECG changes
C. Stop fluids
D. Give sodium bicarbonate only
94. Which sign suggests overlap DKA/HHS syndrome?
A. Low glucose and high ketones
B. Very high glucose with significant ketonemia and acidosis
C. Normal osmolality and no ketones
D. Isolated lactic acidosis
95. When is bicarbonate therapy indicated in DKA?
A. For all DKA cases routinely
B. Only if pH <6.9 or severe life-threatening acidosis
C. If glucose >300 mg/dL
D. For mild metabolic acidosis (pH 7.25)
96. Which monitoring frequency is appropriate in moderate–severe DKA?
A. Labs every 24 hours
B. Serum glucose hourly, electrolytes and venous blood gas every 2–4 hours
C. No monitoring after initial labs
D. Only daily ECG
97. Which complication can occur with overly rapid correction of hyperglycemia?
A. Cerebral edema (especially in children)
B. Chronic retinopathy
C. Peripheral neuropathy
D. Osteoporosis
98. Best prevention strategy for recurrent DKA?
A. Stop insulin permanently
B. Patient education, sick-day rules, and access to care
C. Avoid all carbohydrates
D. Routine monthly hospitalization

99. Which medication class increases risk of DKA in type 2 diabetes?
A. Metformin
B. SGLT2 inhibitors (rare risk of euglycemic DKA)
C. Sulfonylureas
D. DPP-4 inhibitors
100. Which vital sign pattern is common in HHS?
A. Bradycardia and hypothermia
B. Tachycardia and signs of severe dehydration
C. Normal vitals always
D. Hypertension only
101. When should ICU admission be considered for DKA/HHS?
A. Mild hyperglycemia only
B. Severe acidosis, hypotension requiring pressors, altered mental status, or renal failure
C. Any patient with type 2 diabetes
D. Only if age >80
102. Which discharge plan element reduces readmission after DKA?
A. No follow-up needed
B. Early outpatient diabetes clinic follow-up, medication reconciliation, and education
C. Stop all diabetes meds at discharge
D. Only dietary pamphlet without contact info
103. A 48-year-old man has resistant hypertension and hypokalemia. Which initial screening test is most appropriate?
A. Plasma aldosterone-to-renin ratio (ARR)
B. Serum cortisol at 8 AM
C. Plasma free metanephrines
D. Serum ACTH
104. A 35-year-old woman presents with central obesity, purple striae, and proximal muscle weakness. Which test best screens for Cushing syndrome?
B. Late-night salivary cortisol or 1-mg overnight dexamethasone suppression
A. 24-hour urinary sodium
C. Plasma renin activity
D. Serum aldosterone
105. A 29-year-old with episodic headaches, sweating, and palpitations has intermittent hypertension. Best biochemical screen?
C. Plasma free metanephrines or 24-hr urinary fractionated metanephrines
A. Serum cortisol
B. Plasma aldosterone
D. Serum TSH
106. A patient with suspected primary adrenal insufficiency has hyperpigmentation and fatigue. Which lab pattern supports primary (Addison) disease?
D. High ACTH, low morning cortisol
A. Low ACTH, low cortisol
B. Normal ACTH, high cortisol
C. High cortisol, low ACTH
107. A 52-year-old with hypertension and an adrenal incidentaloma (1.5 cm) — next step to evaluate functionality?
A. Immediate adrenalectomy
B. Serum electrolytes only

- C. Screen for cortisol autonomy (overnight dexamethasone suppression) and catecholamine excess
- D. Ignore if <2 cm

108. A patient on chronic glucocorticoids presents with hypotension after abrupt cessation. Most likely mechanism?

- A. Primary adrenal hyperplasia
- B. Suppression of HPA axis causing secondary adrenal insufficiency
- C. Aldosterone excess
- D. Pheochromocytoma crisis

109. Which imaging is preferred to localize an adrenal cortical adenoma after biochemical confirmation?

- A. Chest X-ray
- B. CT or MRI of the adrenal glands
- C. Thyroid ultrasound
- D. Bone scan

110. A patient with suspected congenital adrenal hyperplasia (21-hydroxylase deficiency) presents with salt-wasting. Which newborn screen abnormality is expected?

- A. Low 17-OH progesterone
- B. High aldosterone only
- C. Elevated 17-OH progesterone
- D. Low ACTH

111. A hypertensive patient has ARR positive; confirmatory testing shows suppressed renin and high aldosterone. Next diagnostic step to subtype (unilateral vs bilateral)?

- A. Start spironolactone without further testing
- B. Adrenal venous sampling (AVS)
- C. PET scan of the brain
- D. Repeat ARR only

112. A patient with pheochromocytoma is scheduled for surgery. Which preoperative preparation reduces perioperative risk?

- A. Beta-blocker alone
- B. No preparation needed
- C. Alpha-adrenergic blockade (phenoxybenzamine or selective agents) before beta-blockade
- D. High-dose corticosteroids only

113. A 40-year-old with suspected autonomous cortisol secretion has normal urinary metanephrines but mild hypercortisolism on dexamethasone test. Management for subclinical Cushing from adrenal adenoma?

- A. Immediate bilateral adrenalectomy
- B. Individualized: consider surgery if comorbidities (hypertension, diabetes) worsen; otherwise monitor
- C. Lifelong ketoconazole for all patients
- D. Ignore findings

114. Which electrolyte abnormality is classic for primary hyperaldosteronism?

- A. Hyponatremia only
- B. Hypercalcemia
- C. Hypokalemia with metabolic alkalosis
- D. Hypoglycemia

115. A patient with bilateral adrenal hyperplasia causing aldosterone excess — best long-term therapy?

- A. Adrenalectomy both sides

- B. Mineralocorticoid receptor antagonist (spironolactone or eplerenone)
C. High-dose glucocorticoids
D. Radioactive iodine
116. Which feature raises concern for malignant adrenal cortical carcinoma rather than benign adenoma?
A. Size <1 cm
B. Homogeneous small lesion
C. Large size (>4–6 cm), irregular margins, rapid growth, or hormonal excess
D. Nonfunctioning and stable for years
117. A patient with suspected autoimmune Addison disease should be screened for which associated condition?
A. Only cardiac disease
B. Other autoimmune endocrinopathies (e.g., autoimmune thyroid disease, type 1 diabetes)
C. Pheochromocytoma only
D. Osteoarthritis
118. Which test helps confirm cortisol deficiency in an outpatient with borderline morning cortisol (8 µg/dL)?
A. Random urine sodium
B. ACTH stimulation (cosyntropin) test
C. Serum aldosterone only
D. Plasma metanephrines
119. A patient with suspected ectopic ACTH production has very high ACTH and cortisol; high-dose dexamethasone fails to suppress cortisol. Most likely source?
A. Pituitary microadenoma
B. Adrenal adenoma
C. Ectopic ACTH from nonpituitary tumor (e.g., small-cell lung cancer)
D. Primary hypothyroidism
120. Which laboratory profile is characteristic of primary hyperparathyroidism?
A. Low calcium, high PTH
B. High calcium, low phosphate, high PTH
C. Normal calcium, high PTH
D. High calcium, high phosphate, low PTH
121. Which method is most informative for assessing bone mineral density?
A. Pelvic X-ray
B. Heel ultrasound
C. DXA (dual-energy X-ray absorptiometry) of hip and lumbar spine
D. Head CT
122. Which radiographic feature is typical of osteitis fibrosa cystica from severe hyperparathyroidism?
A. Subchondral sclerotic plaques
B. Cystic “brown” tumors and subperiosteal cortical resorption
C. Ligamentous calcification
D. Perivascular calcium deposits
123. Which test helps distinguish primary from secondary hyperparathyroidism?
A. 25-OH vitamin D level only
B. Thyroid ultrasound
C. Serum calcium and PTH: in secondary hyperparathyroidism PTH is high with low/normal calcium

- D. Chest X-ray
124. Which bone-turnover marker reflects osteoclastic activity?
A. Osteopontin
B. Calcitonin
C. Cross-linked C-telopeptide (CTX)
D. 25-OH vitamin D
125. Which clinical symptom is most common in severe hypercalcemia?
A. Hyperreflexia
B. Tremor
C. Weakness, polyuria, constipation, and neuropsychiatric changes
D. Hypothermia
126. For preoperative localization of a parathyroid adenoma which imaging is preferred?
A. Neck X-ray
B. Thyroid and parathyroid ultrasound
C. ^{99m}Tc -sestamibi scintigraphy \pm SPECT/CT
D. Chest CT
127. Which treatment is preferred for a symptomatic solitary parathyroid adenoma?
A. Always conservative observation
B. Radiotherapy
C. Parathyroidectomy (surgical removal of the affected gland)
D. Long-term calcitonin therapy
128. Which laboratory profile is typical for osteomalacia?
A. High calcium, low PTH
B. Low 25-OH vitamin D, low/normal calcium, elevated PTH
C. High 25-OH vitamin D
D. PTH and calcium always normal
129. Which risk factor is most strongly associated with increased fracture risk in osteoporosis?
A. Young age
B. High body mass index
C. Prior fracture and low BMD (T-score ≤ -2.5)
D. High physical activity
130. Which medication is indicated for postmenopausal osteoporosis with high fracture risk?
A. Levothyroxine
B. Vitamin C
C. Bisphosphonates (e.g., alendronate) or denosumab when indicated
D. Antibiotics
131. Which test assesses renal calcium loss in a patient with hypercalcemia?
A. Renal ultrasound only
B. 24-hour urinary calcium
C. Chest X-ray
D. Bone scan
132. Which genetic syndrome is associated with multiple endocrine tumors including parathyroid disease?
A. Marfan syndrome
B. Paget disease of bone
C. MEN1 (multiple endocrine neoplasia type 1)
D. Ehlers-Danlos syndrome

133. Which marker is often elevated in osteoporotic fractures reflecting increased bone turnover?
- A. PTH always low
 - B. Resorption marker (CTX) may be elevated with accelerated remodeling**
 - C. 25-OH vitamin D always high
 - D. TSH elevated
134. What is the treatment approach for secondary hyperparathyroidism in chronic kidney disease?
- A. Ignore PTH
 - B. Surgery only
 - C. Correct vitamin D deficiency, control phosphate, use calcimimetics; consider parathyroidectomy if refractory**
 - D. High-dose vitamin A
135. Which test is useful to assess mineralization quality in children with suspected rickets?
- A. DXA only for adults
 - B. Wrist radiographs plus measurement of 25-OH vitamin D, calcium, and phosphate**
 - C. Brain MRI
 - D. 24-hour urine protein
136. Which clinical feature helps distinguish familial hypocalciuric hypercalcemia (FHH) from primary hyperparathyroidism?
- A. Severe symptoms and kidney stones always present
 - B. Family history, hypercalcemia with low urinary calcium excretion**
 - C. High likelihood of cure with parathyroidectomy
 - D. Always low PTH
137. A 26-year-old woman presents with oligomenorrhea, hirsutism, and BMI 32. Best initial endocrine test?
- A. Serum total testosterone**
 - B. Serum prolactin
 - C. 17-OH progesterone
 - D. TSH
138. Which finding most strongly supports PCOS rather than an androgen-secreting tumor?
- A. Rapid virilization over weeks
 - B. Very high testosterone (>200 ng/dL)
 - C. Chronic oligomenorrhea with gradual hirsutism and polycystic ovarian morphology**
 - D. Postmenopausal onset of hirsutism
139. A woman with amenorrhea and galactorrhea — first lab test?
- A. Serum estradiol only
 - B. Serum prolactin**
 - C. Serum cortisol
 - D. 17-OH progesterone
140. Which cause of hyperprolactinemia requires MRI of the pituitary?
- A. Mild elevation (30–50 ng/mL) after chest wall stimulation
 - B. Marked elevation (>200 ng/mL) suggesting prolactinoma**
 - C. Pregnancy-related elevation
 - D. Drug-induced mild rise
141. A man with low libido, decreased morning erections, and small testes — best initial test?
- A. Serum cortisol
 - B. Morning total testosterone with LH and FSH**
 - C. Prolactin only

- D. Thyroid ultrasound
142. Which pattern indicates primary (testicular) hypogonadism?
- A. Low testosterone, low LH/FSH
 - B. Normal testosterone, high LH/FSH
 - C. Low testosterone, high LH/FSH
 - D. High testosterone, low LH/FSH
143. A reproductive-age woman with irregular menses and severe acne has suppressed gonadotropins and elevated androgens — consider:
- A. Hypothyroidism
 - B. Hyperprolactinemia
 - C. Nonclassical congenital adrenal hyperplasia (21-hydroxylase deficiency)
 - D. Primary ovarian insufficiency
144. Which test screens for nonclassical CAH?
- A. Serum cortisol at 8 AM
 - B. Serum DHEA-S only
 - C. Basal 17-OH progesterone (and ACTH stimulation if borderline)
 - D. Serum estradiol
145. A woman with infertility has irregular cycles and insulin resistance. First-line management to restore ovulation?
- A. Immediate IVF
 - B. High-dose glucocorticoids
 - C. Weight loss and metformin; consider ovulation induction (letrozole)
 - D. Oophorectomy
146. Which medication is preferred to induce ovulation in PCOS?
- A. Clomiphene citrate only
 - B. Gonadotropins first-line for all patients
 - C. Letrozole (aromatase inhibitor)
 - D. High-dose estrogen therapy
147. A young woman with irregular menses and low bone density — which endocrine cause to exclude?
- A. Hyperprolactinemia
 - B. Hypogonadotropic hypogonadism (low estrogen)
 - C. Hyperthyroidism only
 - D. PCOS only
148. Which lab pattern suggests functional hypothalamic amenorrhea?
- A. High LH/FSH, high estrogen
 - B. Low/normal LH and FSH with low estradiol and normal prolactin
 - C. High prolactin and high estrogen
 - D. Elevated testosterone only
149. A woman with irregular bleeding and elevated serum androgens should have which imaging?
- A. Brain MRI first
 - B. Pelvic ultrasound to assess ovarian morphology and masses
 - C. Chest X-ray only
 - D. Bone scan
150. Which endocrine disorder causes virilization in a postmenopausal woman and requires urgent evaluation?
- A. PCOS typical onset in adolescence

- B. Functional hypothalamic amenorrhea
- C. Androgen-secreting ovarian or adrenal tumor
- D. Hyperprolactinemia only