Purpose of the exam

The exam is designed to evaluate the knowledge, diagnostic reasoning, and clinical judgment skills expected of the certified endocrinologist in the broad domain of the discipline. The ability to make appropriate diagnostic and management decisions that have important consequences for patients will be assessed. The exam may require recognition of common as well as rare clinical problems for which patients may consult a certified endocrinologist.

Exam content

Exam content is determined by a pre-established blueprint, or table of specifications. The blueprint is developed by ABIM and is reviewed annually and updated as needed for currency. Trainees, training program directors, and certified practitioners in the discipline are surveyed periodically to provide feedback and inform the blueprinting process.

The primary medical content categories of the blueprint are shown below, with the percentage assigned to each for a typical exam:

<table>
<thead>
<tr>
<th>Medical Content Category</th>
<th>% of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adrenal Disorders</td>
<td>10%</td>
</tr>
<tr>
<td>Pituitary Disorders</td>
<td>10%</td>
</tr>
<tr>
<td>Lipids, Obesity, and Nutrition</td>
<td>12%</td>
</tr>
<tr>
<td>Female Reproduction</td>
<td>7%</td>
</tr>
<tr>
<td>Male Reproduction</td>
<td>7%</td>
</tr>
<tr>
<td>Diabetes Mellitus and Hypoglycemia</td>
<td>24%</td>
</tr>
<tr>
<td>Calcium and Bone Disorders</td>
<td>15%</td>
</tr>
<tr>
<td>Thyroid Disorders</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

Exam questions in the content areas above may also address clinical topics in internal medicine, including some general pediatrics with an emphasis on adolescent medicine, that are important to the practice of endocrinology.
ABIM is committed to working toward health equity and believes that board-certified physicians should have an understanding of health care disparities. Therefore, health equity content that is clinically important to each discipline will be included in assessments, and the use of gender, race, and ethnicity identifiers will be re-evaluated.

Exam format

The exam is composed of up to 240 single-best-answer multiple-choice questions, of which approximately 40 are new questions that do not count in the examinee’s score. Most questions describe patient scenarios and ask about the work done (that is, tasks performed) by physicians in the course of practice:

- Making a diagnosis
- Ordering and interpreting results of tests
- Recommending treatment or other patient care
- Assessing risk, determining prognosis, and applying principles from epidemiologic studies
- Understanding the underlying pathophysiology of disease and basic science knowledge applicable to patient care

Clinical information presented may include various media illustrating relevant findings, such as diagnostic imaging studies, continuous glucose monitoring tracings, radiographic studies, or patient photographs. The certification exam may include the following adrenal imaging studies and procedures:

- Differentiate among imaging techniques for adrenal disease, including computed tomography, magnetic resonance imaging, meta-iodobenzylguanidine scintigraphy, indium-labeled pentetreotide scintigraphy, fludrodeoxyglucose positron emission tomography, and 68-Ga-DOTATATE positron emission tomography.
- Interpret imaging phenotype to predict the histologic type of adrenal disease—including: benign adenoma, pheochromocytoma, adrenocortical carcinoma, and adrenal metastases.
- Identify indications for computed tomography–guided adrenal fine-needle aspiration biopsy.
- Identify indications for adrenal venous sampling for aldosterone.
- Interpret results from adrenal venous sampling (with or without cosyntropin stimulation).
The following pituitary imaging studies and procedures may be included on the exam:

- Interpret typical imaging phenotypes on magnetic resonance imaging for primary pituitary tumors, pituitary cysts, pituitary hyperplasia, metastatic lesions to the pituitary, pituitary stalk lesions, and hypothalamic masses.
- Identify indications for inferior petrosal sinus sampling for corticotropin.
- Interpret results from inferior petrosal sinus sampling.

Learn more information on how exams are developed. A tutorial including examples of ABIM exam question format can be found at [http://www.abim.org/certification/exam-information/endocrinology-diabetes-metabolism/exam-tutorial](http://www.abim.org/certification/exam-information/endocrinology-diabetes-metabolism/exam-tutorial).

The blueprint can be expanded for additional detail as shown below. Each of the medical content categories is listed there, and below each major category are the content subsections and specific topics that may appear in the exam. Please note: actual exam content may vary.

<table>
<thead>
<tr>
<th>Adrenal Disorders</th>
<th>10% of Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Glucocorticoids</strong></td>
<td>4%</td>
</tr>
<tr>
<td>Cushing syndrome</td>
<td></td>
</tr>
<tr>
<td>Management of glucocorticoid therapy</td>
<td></td>
</tr>
<tr>
<td>Adrenal insufficiency</td>
<td></td>
</tr>
<tr>
<td>Glucocorticoid resistance</td>
<td></td>
</tr>
<tr>
<td><strong>Mineralocorticoids</strong></td>
<td>2%</td>
</tr>
<tr>
<td>Hyperaldosteronism</td>
<td></td>
</tr>
<tr>
<td>Hypoaldosteronism</td>
<td></td>
</tr>
<tr>
<td><strong>Adrenal androgens</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Congenital adrenal hyperplasia</td>
<td></td>
</tr>
<tr>
<td><strong>Adrenal incidentaloma</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td><strong>Adrenal medulla</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Pheochromocytoma and paraganglioma</td>
<td></td>
</tr>
<tr>
<td>Neurofibromatosis type 1</td>
<td></td>
</tr>
<tr>
<td>von Hippel-Lindau syndrome</td>
<td></td>
</tr>
<tr>
<td>Multiple endocrine neoplasia (MEN) types 2A and 2B</td>
<td></td>
</tr>
<tr>
<td>Familial paraganglioma syndromes</td>
<td></td>
</tr>
<tr>
<td>Familial paraganglioma-pheochromocytoma syndromes</td>
<td></td>
</tr>
<tr>
<td><strong>Adrenal cancer</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Pituitary Disorders</td>
<td>10% of Exam</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td><strong>Prolactin</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Hyperprolactinemia</td>
<td></td>
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<tr>
<td>Normoprolactinemic galactorrhea</td>
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<tr>
<td><strong>Growth hormone</strong></td>
<td>2%</td>
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<tr>
<td>Acromegaly</td>
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<tr>
<td>Deficiency</td>
<td></td>
</tr>
<tr>
<td><strong>Thyroid-stimulating hormone (TSH)</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>TSH-secreting adenoma</td>
<td></td>
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<tr>
<td>Hyperplasia secondary to longstanding primary hypothyroidism</td>
<td></td>
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<tr>
<td>TSH deficiency</td>
<td></td>
</tr>
<tr>
<td><strong>Gonadotropins</strong></td>
<td>&lt;2%</td>
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<tr>
<td>Gonadotroph pituitary tumors</td>
<td></td>
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<tr>
<td>Hypogonadotrophic hypogonadism</td>
<td></td>
</tr>
<tr>
<td><strong>Nonsecreting pituitary tumors</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td><strong>Adrenocorticotropic hormone (ACTH)</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Cushing disease</td>
<td></td>
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<tr>
<td>ACTH deficiency</td>
<td></td>
</tr>
<tr>
<td><strong>Hypopituitarism</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Clinical presentation</td>
<td></td>
</tr>
<tr>
<td>Causes</td>
<td></td>
</tr>
<tr>
<td>Tumors</td>
<td></td>
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<tr>
<td>Pituitary apoplexy</td>
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<tr>
<td>Sheehan syndrome</td>
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<tr>
<td>Hemochromatosis</td>
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<tr>
<td>Lymphocytic hypophysitis</td>
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<tr>
<td>Sarcoidosis</td>
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<tr>
<td>Traumatic brain injury</td>
<td></td>
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<tr>
<td>Iatrogenic (radiation, surgery)</td>
<td></td>
</tr>
<tr>
<td><strong>Diagnosis</strong></td>
<td></td>
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<tr>
<td><strong>Treatment</strong></td>
<td></td>
</tr>
<tr>
<td>Adjustment of growth hormone according to insulin-like growth factor-1 (IGF-1) levels</td>
<td></td>
</tr>
<tr>
<td>Monitoring of thyroid with free thyroxine (T4)</td>
<td></td>
</tr>
<tr>
<td>Clinical adjustment of glucocorticoids</td>
<td></td>
</tr>
<tr>
<td><strong>Empty sella syndrome</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td><strong>Antidiuretic hormone (ADH)</strong></td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Diabetes insipidus</td>
<td></td>
</tr>
<tr>
<td>Syndrome of inappropriate antidiuretic hormone secretion (SIADH)</td>
<td></td>
</tr>
</tbody>
</table>
Craniohypophyseal cysts
Pituitary incidentaloma

**Lipids, Obesity, and Nutrition 12% of Exam**

**Hypercholesterolemia <2%**
- Primary disorders
  - Familial hypercholesterolemia
  - Familial defective apolipoprotein B-100
  - Lipoprotein(a)
  - Elevated high-density lipoprotein cholesterol
- Secondary disorders

**Hypertriglyceridemia <2%**
- Primary disorders
  - Monogenic hypertriglyceridemia
  - Polygenic disorders
- Secondary disorders
  - Chylomicronemia syndrome

**Elevated triglycerides and low-density lipoprotein cholesterol 2.5%**
- Primary disorders
  - Familial combined hyperlipidemia
  - Familial dysbetalipoproteinemia (type III)
- Secondary disorders

**Hypolipidemia <2%**
- Primary disorders
  - Hypobetalipoproteinemia (Low LDL-c)
- Secondary disorders

**Treatment of lipid disorders 2.5%**
- Diet
- Drugs
- Lifestyle
- Indications for treatment

**Obesity and nutrition 3%**
- Genetic disorders
- Secondary disorders
- Comorbidities
Treatment of obesity

- Diet
- Drugs
- Lifestyle
- Surgery and endoscopic treatments

Indications for treatment

General nutrition <2%

- Energy requirements
- Vitamin deficiency
- Enteral nutrition

Strategies for counseling <2%

Female Reproduction 7% of Exam

Amenorrhea <2%

- Primary
  - Androgen insensitivity syndrome
  - Turner syndrome
  - Congenital gonadotropin-releasing hormone (GnRH) deficiency

- Secondary

Hyperandrogenism <2%

- Polycystic ovary syndrome
- Non-poly-cystic ovary syndromes
  - Hyperthecosis
  - Ovarian tumors
  - Adrenal tumors
  - Nonclassic congenital adrenal hyperplasia
  - Pregnancy-associated
  - Anabolic steroids

Premenstrual syndrome and premenstrual dysphoric disorder <2%

Endocrine causes of infertility <2%

- Anovulation
  - Age-associated infertility (diminished ovarian reserve)

Hormonal contraception <2%

- Combined estrogen–progestin contraceptives
- Progestin-only contraception
Perimenopause and menopause <2%
  Perimenopause
  Menopause
  Estrogen–progestin therapy

Sexual differentiation <2%
  Gender dysphoria
  Female-to-male transition management

Male Reproduction 7% of Exam

Hypogonadism 2%
  Testosterone in hypogonadism
  Sex hormone binding globulin (SHBG)–dependent changes in testosterone
  Primary hypogonadism
  Secondary hypogonadism
  Genetic disorders of androgen production and action
  Testosterone therapy
  Gonadotropins

Infertility <2%
  Causes
    Cryptorchidism
    Klinefelter syndrome
    Cystic fibrosis and cystic fibrosis gene mutations
    Drug-induced infertility
    Obstructive azoospermia
    Idiopathic oligozoospermia
    Y-chromosome microdeletions
  Treatment
    Gonadotropins
    Testicular sperm extraction
    Intracytoplasmic sperm injection

Gynecomastia <2%
  Causes
    Drug-induced gynecomastia
    Testicular tumors (Sertoli and Leydig cell tumors)
    Extratesticular tumors
    Androgen deprivation therapy for prostate cancer
    Hyperthyroidism
    Pubertal gynecomastia
    Idiopathic and other rare causes of gynecomastia
Treatment
Tamoxifen
Aromatase inhibitors
Mammoplasty and mastectomy

**Erectile dysfunction** <2%

**Causes**
Smoking
Diabetes mellitus
Hypertension
Hyperlipidemia
Peyronie disease
Pelvic and prostate surgery
Obesity

**Diagnostic tests**

**Treatment**
Phosphodiesterase-5 and nonspecific phosphodiesterase inhibitors
Prostaglandin E1, intraurethral and intracavernosal
Alpha-adrenergic blockers
Penis pump (penile vacuum device)
Penile implant

**Testosterone in aging men** <2%

**Abuse of androgens and anabolic steroids** <2%

**Sexual differentiation** <2%
Gender dysphoria
Male-to-female transition management

**Ejaculatory dysfunctions** <2%
Premature ejaculation

---

**Diabetes Mellitus and Hypoglycemia** 24% of Exam

**Prediabetes** 2%
Impaired fasting glucose
Impaired glucose tolerance
Screening
Diabetes prevention

**Monitoring glycemic control** 2%
Hemoglobin A1C
Fructosamine and 1,5-anhydroglucitol
Conventional glucose monitoring
Ketone testing
Continuous glucose monitoring (CGM)
Type 1 diabetes mellitus

- Ketoacidosis
- Recent-onset type 1 diabetes
- Latent autoimmune diabetes of the adult (LADA)
- Hyperglycemia in type 1 diabetes
- Hypoglycemia due to insulin management
- Hypoglycemia unawareness
- Pathogenesis of type 1 diabetes

Type 2 diabetes mellitus

- Hyperosmolar nonketotic state
- Hyperglycemia in type 2 diabetes
- Hypoglycemia due to oral agents and insulin management
- Pathogenesis of type 2 diabetes

Additional types of diabetes

- Monogenic diabetes
- Ketosis-prone diabetes (KPD)
- New-onset diabetes after transplant (NODAT)
  [post-transplant diabetes mellitus (PTDM)]
- Pancreatic diabetes
- Cystic fibrosis–related diabetes
- Drug-induced diabetes

Recognition and management of associated conditions

- Hypertension
- Dyslipidemia
- Obesity
- Sleep apnea
- Fatty liver
- Thyroid disease
- Celiac disease
- Polycystic ovary syndrome
- Eating disorders

Pregnancy

- Gestational diabetes
- Pre-gestational diabetes

Diabetes mellitus complications

- Microvascular
  - Retinopathy
  - Nephropathy
  - Neuropathy
Macular edema
Mononeuropathies
Macrovascular
  Coronary artery disease
  Heart failure
  Peripheral vascular disease
Diabetic foot
Skin disorders
  Lipohypertrophy
  Lipoatrophy
  Necrobiosis lipoidica
  Acanthosis nigricans
Neuropsychiatric
  Pancreas transplantation <2%
  Hypoglycemia independent of diabetes mellitus 2%
    Insulinoma
    Noninsulinoma
  Inpatient diabetes mellitus management <2%
    Intensive care unit
    Non–intensive care unit

<table>
<thead>
<tr>
<th>Calcium and Bone Disorders</th>
<th>15% of Exam</th>
</tr>
</thead>
</table>

**Hypercalcemia** 3%

  Parathyroid hormone–mediated
    Primary hyperparathyroidism
    Familial hypocalciuric hypercalcemia
    Lithium-induced

  Non–parathyroid hormone–mediated
    Hypercalcemia of malignancy
    Milk-alkali syndrome
    Sarcoidosis, tuberculosis, and other granulomatous diseases
    Vitamin D intoxication
    Post-rhabdomyolysis
    Adynamic bone disease
    Myeloma
    Acute adrenal insufficiency
    Vitamin A
Hypocalcemia 2.5%
- Hypoparathyroidism
- Parathyroid hormone (PTH) resistance
- Hypomagnesemia
- Hyperphosphatemia
- Celiac disease
- Hypocalcemia (general)

Osteoporosis 4%
- In female
- In male
- Post-transplantation and glucocorticoid-induced
- Renal, hepatic, and gastrointestinal disease–related

Paget disease of bone <2%

Hypovitaminosis D <2%
- Dietary deficiency
- Limited sun exposure
- Malabsorption
- Liver failure
- Renal insufficiency
- Vitamin D–dependent rickets types I and II
- Vitamin D–resistant rickets
- Drug-induced
- Bone disease
- Nonskeletal disorders

Osteomalacia and rickets <2%
- Chronic hypophosphatemia
- Inhibitors of mineralization

Renal osteodystrophy <2%
Nephrolithiasis <2%
Osteogenesis imperfecta and bone dysplasias <2%
Fibrous dysplasia and other dysplastic syndromes <2%
Calciphylaxis <2%
Hypophosphatemia <2%
- Renal losses
- Gastrointestinal malabsorption
- Internal redistribution

Rare bone diseases <2%
- Hypophosphatasia
- Fibrodysplasia ossificans progressiva
- Osteopetrosis
## Thyroid Disorders

**15% of Exam**

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thyroid Disorders</td>
<td></td>
</tr>
<tr>
<td>Hyperthyroidism</td>
<td>3.5%</td>
</tr>
<tr>
<td>Graves disease</td>
<td></td>
</tr>
<tr>
<td>Toxic adenoma and multinodular goiter</td>
<td></td>
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<tr>
<td>Inappropriate thyroid-stimulating hormone (TSH) syndromes</td>
<td></td>
</tr>
<tr>
<td>TSH-secreting tumor</td>
<td></td>
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<tr>
<td>Resistance to thyroid hormone and thyroid hormone action</td>
<td></td>
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<tr>
<td>Artifactual TSH “derangements”</td>
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<tr>
<td>Thyrotoxicosis with low radioactive iodine uptake</td>
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<tr>
<td>Thyroiditis</td>
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<tr>
<td>Factitious, accidental, and iatrogenic thyrotoxicosis</td>
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<tr>
<td>Iodine-induced</td>
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<tr>
<td>Struma ovarii</td>
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<tr>
<td>Complicated thyrotoxicosis</td>
<td></td>
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<tr>
<td>Subclinical hyperthyroidism</td>
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</tr>
<tr>
<td>Hypothyroidism</td>
<td>2.5%</td>
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<tr>
<td>Primary</td>
<td></td>
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<tr>
<td>Secondary</td>
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<tr>
<td>Subclinical hypothyroidism</td>
<td></td>
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<tr>
<td>Complicated hypothyroidism</td>
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<tr>
<td>TSH resistance</td>
<td></td>
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<tr>
<td>Therapy</td>
<td></td>
</tr>
<tr>
<td>Nontoxic solitary nodules and multinodular goiter</td>
<td>3%</td>
</tr>
<tr>
<td>Fine-needle aspiration/cytology and genetic test interpretation</td>
<td></td>
</tr>
<tr>
<td>Roles of ultrasonography and radionuclide scanning</td>
<td></td>
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<tr>
<td>Treatment</td>
<td></td>
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<tr>
<td>Surgery</td>
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<tr>
<td>Radioactive iodine</td>
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<tr>
<td>Minimally invasive and noninvasive treatments</td>
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</tr>
<tr>
<td>Thyroid cancer</td>
<td>3.5%</td>
</tr>
<tr>
<td>Well-differentiated epithelial cancers</td>
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<tr>
<td>Hürthle cell cancer</td>
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<tr>
<td>Anaplastic cancer</td>
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<tr>
<td>Lymphoma</td>
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<tr>
<td>Medullary cancer</td>
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<tr>
<td>Thyroid test abnormalities without thyroid disease</td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Euthyroid hypothyroxinemia</td>
<td></td>
</tr>
<tr>
<td>Euthyroid hyperthyroxinemia</td>
<td></td>
</tr>
</tbody>
</table>
Effect of drugs on thyroid function tests
Euthyroid sick syndrome
Thyroid hormone antibodies
Antibody interferences with TSH measurement

Thyroid diseases in pregnancy

- Hypothyroidism
- Hyperthyroidism
- Thyroid nodule and cancer

<2%

July 2023