General Pediatrics Content Outline

In-Training, Certification, and Maintenance of Certification Exams

Effective for examinations administered September 1, 2017 and after

THE AMERICAN BOARD of PEDIATRICS

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Overview

In 2016, the American Board of Pediatrics (ABP) updated its General Pediatrics (GP) Content Outline, which serves as the blueprint for the initial certification, maintenance of certification, and in-training examinations. The new blueprint takes effect on September 1, 2017. All examinations administered after this date will adhere to the content specifications outlined in this document.

DEVELOPMENT OF THE GENERAL PEDIATRICS CONTENT OUTLINE

The initial draft of this content outline was developed by a diverse, representative panel of practicing general pediatricians who were asked to identify and categorize the knowledge required of general pediatricians in clinical practice. All board certified general pediatricians (N = 69,117) were then invited to review the draft outline and provide feedback via online survey. Survey respondents rated the frequency and criticality of the content domains and subdomains (ie, knowledge areas within the outline). The survey results were used to make final revisions to the outline and to establish the exam weights (ie, the percentage of exam questions associated with each content domain).

Generally speaking, knowledge areas that were rated by general pediatricians as highly critical and frequently required in practice have been weighted more heavily than knowledge areas rated as less critical and/or less frequently required. This process was used to establish an empirical link between the knowledge required for clinical practice and the knowledge areas assessed by the ABP's general pediatrics examinations.

PURPOSE OF THE GENERAL PEDIATRICS CONTENT OUTLINE

The primary purpose of the GP Content Outline is to serve as the blueprint for the initial certification, maintenance of certification, and in-training exams. This outline identifies for all important stakeholders (eg, candidates/diplomates, the public, training programs, professional associations) the knowledge areas being measured by these exams.

CONTENT DOMAINS

The knowledge necessary for practice as a general pediatrician has been categorized into 25 major content areas referred to as content domains, which are presented in the table below. A more detailed breakdown of the knowledge within each domain is reflected in the detailed content outline, beginning on page 4.

Ger	neral Pediatrics Content Domains
1.	Preventive Pediatrics/Well Child Care
2.	Fetal and Neonatal Care
3.	Adolescent Care
4.	Genetics, Dysmorphology, and Metabolic Disorders
5.	Mental and Behavioral Health
6.	Child Abuse and Neglect
7.	Emergency and Critical Care
8.	Infectious Diseases
9.	Oncology
10.	Hematology
11.	Allergy and Immunology
12.	Endocrinology
13.	Orthopedics and Sports Medicine
14.	Rheumatology
15.	Neurology
16.	Eye, Ear, Nose, and Throat
17.	Cardiology
18.	Pulmonology
19.	Gastroenterology
20.	Nephrology, Fluids, and Electrolytes
21.	Urology and Genital Disorders
22.	Skin/Dermatology
23.	Psychosocial Issues
24.	Ethics
25.	Research Methods, Patient Safety, and Quality Improvement

UNIVERSAL TASKS

The universal tasks reflect the primary ways in which pediatric knowledge (ie, the knowledge specified in the content domains and subdomains) can be applied in clinical practice. The four universal tasks that have been identified are described in the table below.

	Universal Tasks for General Pediatrics				
Universal Task		Description			
1.	Basic Science and Pathophysiology	Understanding best practices, clinical guidelines, and foundational pediatric knowledge, including normal and abnormal function of the body and mind in an age-specific development context			
2.	Epidemiology and Risk Assessment	Recognizing patterns of health and disease and understanding the variables that influence those patterns			
3.	Diagnosis	Using available information (eg, patient history, physical exam) to formulate differential diagnoses, choose appropriate tests, and interpret test results to reach a likely diagnosis			
4.	Management and Treatment	Formulating a comprehensive management and/or treatment plan, including reevaluation and long- term follow-up, taking into account multiple options for care			

DEVELOPMENT AND CLASSIFICATION OF EXAM QUESTIONS

All exam questions are written and reviewed by committees comprised of board-certified academicians and practitioners. Questions are written to be in alignment with one of the content subdomains and one of the universal tasks. For example, a committee member may be asked to develop a question that assesses a pediatrician's knowledge of how to manage/ treat a particular sleep disorder. This question would be classified into content subdomain 15.B.4 (Neurology \rightarrow Diseases, disorders, and conditions \rightarrow Sleep disorders) and universal task 4 (ie, Management and Treatment).

The exam weights, which specify the percentage of exam questions that belong to each content domain and universal task, are provided on page 3.

A NOTE OF CAUTION FOR PROSPECTIVE EXAMINEES

Prospective examinees are encouraged to exercise caution when using this content outline to prepare for an exam (ie, using the content outline as a study guide). The content domains and subdomains within this outline should be viewed as broad categories of knowledge containing many specific elements. The detailed knowledge required for safe and effective practice as a general pediatrician changes quickly, and establishing and maintaining a more detailed list of elements within each content category falls outside the scope of this outline. This outline is simply intended to provide an overview of the knowledge areas being assessed. To ensure that each exam question is current and up to date, the ABP has incorporated many policies and protocols into its exam development processes. In addition, the content domains and subdomains within this outline will be systematically reviewed and updated on a regular basis. It is the responsibility of the test takers, however, to identify the critical elements within each content area and to ensure that their knowledge in each area is current and up to date.

Exam Weights

The tables below indicate exam weights (ie, the percentage of test questions that fall within each content domain and each universal task) for all three General Pediatrics examinations (initial certification, maintenance of certification, and in-training).

Cor	Exam Weight	
1.	Preventive Pediatrics/Well Child Care	8%
2.	Fetal and Neonatal Care	5%
3.	Adolescent Care	5%
4.	Genetics, Dysmorphology, and Metabolic Disorders	3%
5.	Mental and Behavioral Health	5%
6.	Child Abuse and Neglect	4%
7.	Emergency and Critical Care	4%
8.	Infectious Diseases	7%
9.	Oncology	2%
10.	Hematology	4%
11.	Allergy and Immunology	4%
12.	Endocrinology	4%
13.	Orthopedics and Sports Medicine	4%
14.	Rheumatology	2%
15.	Neurology	5%
16.	Ear, Eye, Nose, and Throat	4%
17.	Cardiology	4%
18.	Pulmonology	5%
19.	Gastroenterology	4%
20.	Nephrology, Fluids, and Electrolytes	4%
21.	Urology and Genital Disorders	3%
22.	Skin/Dermatology	4%
23.	Psychosocial Issues	2%
24.	Ethics	2%
25.	Research Methods, Patient Safety, and Quality Improvement	2%
	Total	100%

Universal Task		Exam Weight
1.	Basic Science and Pathophysiology	20%
2.	Epidemiology and Risk Assessment	10%
3.	Diagnosis	35%
4.	Management and Treatment	35%
	Total	100%

Detailed Content Outline

Domain 1: Preventive Pediatrics/Well-Child Care (8%)

- A. Normal growth and development
 - 1. Physical
 - 2. Social
 - 3. Emotional
 - 4. Language
 - 5. Gross motor
 - 6. Fine motor
- B. Nutrition
 - 1. Newborn and infant feeding
 - 2. Age-specific nutritional needs
 - 3. Patient population-specific nutritional needs (eg, vegetarian, vegan)
 - 4. Condition-specific nutritional needs (eg, food allergies, hypertension)
 - 5. Obesity
- C. Immunizations
 - 1. Current recommendations
 - 2. Special circumstances (eg, contraindication, lapse immunization)
- D. Screening and disease prevention
 - 1. Age-appropriate medical screenings
 - 2. Age-appropriate mental health screenings
 - 3. Psychosocial screenings
- E. Anticipatory guidance
 - 1. Safety and injury prevention
 - 2. Common behavioral issues
 - a. Eating
 - b. Sleeping
 - c. Toileting
 - 4. Aggression/acting out
 - 5. Temperament
 - 6. Adjustment to life transitions

Domain 2: Fetal and Neonatal Care (5%)

- A. Fetal care
 - 1. Prenatal screenings
 - 2. Prenatally diagnosed fetal conditions
 - 3. Special maternal conditions
- B. Neonatal care
 - 1. Stabilization and transition
 - 2. Routine care (eg, universal newborn screening)
 - 3. Clinical presentation (eg, respiratory distress, jaundice, cyanosis)
 - 4. Diseases, disorders, and conditions (eg, small for gestational age {SGA}, birth injuries, ambiguous genitalia)
 - 5. Congenital anomalies

Domain 3: Adolescent Care (5%)

- A. Growth and development
 - 1. Pubertal
 - 2. Cognitive
 - 3. Emotional
- B. Sex and sexuality
 - 1. Sexual behavior (eg, contraception, pregnancy)
 - 2. Sexual orientation
 - 3. Gender identity
- C. Gynecology
 - 1. Routine care (eg, dysmenorrhea)
 - 2. Clinical presentation (eg, abdominal pain, vaginal discharge)
 - 3. Diseases, disorders, and conditions
 - a. Menstrual
 - b. Breast
- D. Mental and behavioral health issues
 - 1. Risk-taking
 - 2. Self-harm
 - 3. Delinquency and asocial behavior
 - 4. Eating disorders
 - 5. Violence

Domain 4: Genetics, Dysmorphology, and Metabolic Disorders (3%)

- A. Basic genetics
 - 1. Mendelian patterns of inheritance
 - 2. Non-mendelian patterns of inheritance
- B. Clinical presentation (eg, dysmorphic patient)
- C. Syndromes
 - 1. Chromosomal abnormalities
 - 2. Gene abnormalities
 - 3. Associations
- D. Inborn errors of metabolism
 - 1. Carbohydrate metabolism
 - 2. Lysosomal storage disorders
 - 3. Amino acid disorders
 - 4. Organic acidemias
 - 5. Urea cycle disorders
 - 6. Fatty acid oxidation disorders

Domain 5: Mental and Behavioral Health (5%)

- A. Cognition, language, learning, and neurodevelopment
 - 1. Clinical presentation (eg, development delay cognition, language, learning or social)
 - 2. Disorders and conditions
 - a. Learning differences
 - b. ADHD
 - c. Autism spectrum disorders
- B. Psychologic/psychiatric disorders
 - 1. Clinical presentation (eg, suicidal ideas or behaviors, psychosis)
 - 2. Identified disorders

- a. Anxiety
- b. Depression
- c. Psychogenic disorders
- C. Substance use/abuse
 - 1. Stimulants
 - 2. Depressants
 - 3. Hallucinogens
 - 4. Prescription medications

Domain 6: Child Abuse and Neglect (4%)

- A. Manifestations of abuse
 - 1. Physical
 - 2. Behavioral/psychological
- B. Categories of abuse
 - 1. Physical abuse
 - 2. Sexual abuse and assault
 - 3. Psychological abuse
 - 4. Neglect
 - 5. Caregiver-fabricated illness
- C. Provider roles (eg, mandated reporting, family support)

Domain 7: Emergency and Critical Care (4%)

- A. Emergency medicine
 - 1. Respiratory distress
 - 2. Acute abdomen
 - 3. Anaphylaxis
 - 4. Trauma/burns
 - 5. Status epilepticus
 - 6. Altered mental status
 - 7. Poisoning/toxic exposure
 - 8. Foreign body aspiration, ingestion
 - 9. Diabetic ketoacidosis (DKA)
 - 10. Concussion/head injury
 - 11. Hypertensive crisis
 - 12. Drowning
- B. Critical care
 - 1. Shock
 - 2. Organ failure
 - 3. Impending respiratory failure

Domain 8: Infectious Diseases (7%)

- A. Specific pathogens
 - 1. Bacterial
 - 2. Viral
 - 3. Fungal
 - 4. Mycobacterial
 - 5. Parasitic
- B. Special circumstances
 - 1. Prenatally acquired infections
 - 2. Vector-borne infections

- 3. Immunocompromised host
- 4. Sexually transmitted infections
- 5. International adoptee
- 6. Toxin-mediated disease
- C. Special considerations
 - 1. Infection control (eg, child care center, school, hospital/clinic)
 - 2. International travel

Domain 9: Oncology (2%)

- A. Clinical presentation
- B. Malignancies
 - 1. Hematologic/lymphatic
 - 2. Central and peripheral nervous systems
 - 3. Ocular
 - 4. Renal
 - 5. Reproductive
 - 6. Musculoskeletal/dermal
- C. Special considerations
 - 1. Complications of cancer treatment
 - 2. Oncologic emergencies
 - 3. Pain and palliative care

Domain 10: Hematology (4%)

- A. Clinical presentation
- B. Diseases, disorders, and conditions
 - 1. Quantitative erythrocyte disorders
 - 2. Qualitative erythrocyte disorders
 - 3. Quantitative leukocyte disorders
 - 4. Qualitative leukocyte disorders
 - 5. Quantitative platelet disorders
 - 6. Qualitative platelet disorders
 - 7. Pancytopenia
 - 8. Coagulation disorders
 - 9. Immune-mediated blood disorders
 - 10. Transfusion reaction

Domain 11: Allergy and Immunology (4%)

- A. Clinical presentation
- B. Allergic disorders
 - 1. Allergic rhinitis
 - 2. Urticaria and angioedema
 - 3. Anaphylaxis
 - 4. Hypersensitivity reaction
 - 5. Food allergy and oral allergy syndrome
- C. Disorders of immune function
 - 1. B cell
 - 2. T cell
 - 3. B cell and T cell
 - 4. Phagocytes
 - 5. Complement deficiencies

Domain 12: Endocrinology (4%)

- A. Clinical presentation
 - 1. Ambiguous genitalia
 - 2. Short stature
 - 3. Tall stature
 - 4. Abnormal onset/progression of puberty (eg, delayed puberty, premature puberty)
- B. Disorders
 - 1. Adrenal disorders
 - 2. Thyroid disorders
 - 3. Pituitary disorders
 - 4. Parathyroid disorders
 - 5. Diabetes insipidus
 - 6. Type 1 diabetes
 - 7. Type 2 diabetes
 - 8. Turner syndrome
 - 9. Klinefelter syndrome
 - 10. Polycystic ovary syndrome
 - 11. Other glucose metabolism disorders

Domain 13: Orthopedics and Sports Medicine (4%)

- A. Orthopedics
 - 1. Clinical presentation (eg, limp joint, swelling, pain)
 - 2. Identified disorders
 - a. Genetic
 - b. Congenital anomalies
 - c. Head/neck
 - d. Spine
 - e. Upper extremities
 - f. Hips/lower extremities
- B. Sports medicine
 - 1. Pre-participation evaluation
 - 2. Injury prevention
 - 3. Conditions and injuries (eg, concussion, heat illness)
 - 4. Return to play (eg, rehabilitation, concussions)
 - 5. Athlete wellness
 - a. Nutrition
 - b. Supplement (eg, performance-enhancing drugs)

Domain 14: Rheumatology (2%)

- A. Clinical presentation
- B. Diseases, disorders, and conditions
 - 1. Post-infectious/reactive arthritis
 - 2. Juvenile idiopathic arthritis
 - 3. Psoriatic arthritis
 - 4. Inherited disorders of connective tissues
 - 5. Systemic lupus erythematosus
 - 6. Dermatomyositis
 - 7. Sarcoidosis
 - 8. Ankylosing spondylitis

- 9. Fibromyalgia
- 10. Rheumatic fever

Domain 15: Neurology (5%)

- A. Clinical presentation (eg, headache, altered mental status, muscle weakness, seizures)
- B. Diseases, disorders, and conditions
 - 1. Brain
 - a. Migraine syndromes
 - b. Post-concussion syndrome
 - c. Seizure disorders
 - d. Hydrocephalus
 - e. Static encephalopathy
 - f. Stroke
 - g. Vascular anomalies
 - 2. Spinal cord
 - a. Inflammatory/infectious
 - b. Anatomic
 - 3. Peripheral nervous system
 - 4. Sleep disorders
 - 5. Muscular dystrophies
 - 6. Neurocutaneous disorders
 - 7. Degenerative neurologic disorders
 - 8. Movement disorders

Domain 16: Eye, Ear, Nose, and Throat (4%)

- A. Eye
 - 1. Clinical presentation (eg, red eye, eye pain, vision change)
 - 2. Diseases, disorders, and conditions
 - a. Inflammatory/infectious
 - b. Structural/anatomic
 - c. Trauma/injury
- B. Ear
 - 1. Clinical presentation (eg, pain, otorrhea, hearing loss)
 - 2. Diseases, disorders, and conditions
 - a. Inflammatory/infectious
 - b. Structural/anatomic
 - c. Trauma/injury
- C. Nose and sinuses
 - 1. Clinical presentation (eg, pain, rhinitis)
 - 2. Diseases, disorders, and conditions
 - a. Inflammatory/infectious
 - b. Structural/anatomic
 - c. Trauma/injury
- D. Mouth, oropharynx, and throat
 - 1. Clinical presentation (eg, bleeding, ulcers)
 - 2. Diseases, disorders, and conditions
 - a. Inflammatory/infectious
 - b. Structural/anatomic
 - c. Trauma/injury

- E. Neck
 - 1. Clinical presentation (eg, pain, mass)
 - 2. Diseases, disorders, and conditions
 - a. Inflammatory/infectious
 - b. Structural/anatomic
 - c. Trauma/injury

Domain 17: Cardiology (4%)

- A. Clinical presentation (eg, abnormal blood pressure, chest pain, syncopy)
- B. Diseases, disorders, and conditions
 - 1. Congenital heart disease
 - a. Cyanotic
 - b. Acyanotic
 - 2. Dysrhythmias
 - 3. Cardiomyopathies
 - 4. Infection/vasculitis
 - 5. Connective tissue disease
 - 6. Dyslipidemias

Domain 18: Pulmonology (5%)

- A. Clinical presentation (eg, cough, respiratory distress, tachypnea, wheezing)
- B. Identified disorders
 - 1. Upper airway
 - 2. Lower airway
 - 3. Parenchymal
 - 4. Extrapulmonary
 - 5. Pulmonary hypertension and cor pulmonale

Domain 19: Gastroenterology (4%)

- A. Clinical presentation (eg, abdominal pain, nausea/vomiting, diarrhea, constipation)
- B. Diseases, disorders, and conditions
 - 1. Esophagus
 - 2. Stomach
 - 3. Proximal bowel
 - 4. Liver
 - 5. Pancreas
 - 6. Distal bowel
 - 7. Rectal-anal
 - 8. Celiac disease
 - 9. Cystic fibrosis

Domain 20: Nephrology, Fluids, and Electrolytes (4%)

- A. Renal physiology (eg, acid-base balance, electrolytes)
- B. Clinical presentation (eg, hematuria, protienuria, polyuria)
- C. Diseases, disorders, and conditions
 - 1. Inflammatory
 - 2. Dysfunctional
 - 3. Genetic
- D. Renal transplant

Domain 21: Urology and Genital Disorders (3%)

- A. Clinical presentation (eg, hematuria, dysuria, incontinence, enuresis, vaginal discharge)
- B. Disorders and conditions
 - 1. Abnormalities of collecting system, bladder and urethra
 - 2. Infections
 - 3. Stones
 - 4. Abnormalities of the genital system
 - a. Male
 - b. Female

Domain 22: Skin/Dermatology (4%)

- A. Clinical presentation (eg, rash, pruritus, abnormal or changing skin pigmentation, hair loss)
- B. Disorders and conditions
 - 1. Congenital/neonatal
 - a. Infectious
 - b. Non-infectious
 - 2. Acquired
 - a. Infections
 - b. Infestations
 - c. Inflammatory
 - d. Immune-mediated
 - e. Traumatic
 - f. Pigment changes
 - g. Papules/nodules
 - h. Vascular lesions
 - i. Acne
 - 3. Neurocutaneous syndromes
 - 4. Dermatologic manifestations of systemic disease

Domain 23: Psychosocial Issues (2%)

- A. Family (eg, divorce, death, adoption, foster care)
- B. Impact of illness (eg, chronic illness/disability)
- C. Societal issues
 - 1. Socio-economic
 - 2. Violence (eg, bullying, physical violence)
 - 3. Cultural differences (eg, language barriers, alternative medicine)
 - 4. Immigration

Domain 24: Ethics (2%)

- A. Medical decision-making (eg, end-of-life care, allocation of resources)
- B. Patient-parent-pediatrician relationship
- C. Professionalism, cross-cultural issues, and institutional ethics

Domain 25: Research Methods, Patient Safety, and Quality Improvement (2%)

- A. Research methods
 - 1. Clinical studies
 - 2. Basic statistics
- B. Patient safety and adverse events

- 1. Causes
- 2. Barriers to detecting and reporting
- 3. Methods for reduction
- C. Quality improvement
 - 1. Goals
 - 2. Methods