NIHS RESIDENCY TRAINING PROGRAM

Internal Medicine

Part One Examination

Examination Format:

National Institute for Health Specialties NIHS (Emirate Board) Part I Examination certificate shall consist of one paper with 150 Single Best Answer MCQs. Up to 10% unscored items can be added for pretesting purposes.

The questions are a mix of case-based, fact-based (direct) and data interpretation questions that assess multiple competencies across different domains, including but not limited to:

1. Medical knowledge: disease mechanisms, pathophysiology and diagnostic criteria.
2. Clinical reasoning and decision making: Application of knowledge to diagnose, manage, and treat patients with common medical problems.
3. Diagnostic interpretation: interpretation of laboratory results, imaging studies, ECGs, and other diagnostic tests.
4. Pharmacology and therapeutics: pharmacodynamics and pharmacokinetics, first-line treatments, common side effects and drug interactions.
5. Patient safety and quality improvement: safe clinical practices, medical error prevention.
6. Ethics: basic ethical principles.
7. Evidence-based medicine: biostatistics and research methodologies.

Information presented may include photographs, radiographs, electrocardiograms, records of heart or lung sounds, and other media to illustrate relevant patient findings.

Passing Score:

The pass mark in the Part One Examination will be determined according to the scientific standards and based on reliable practices in assessment.

Suggested References:

1. Davidson’s Principles and Practice of Medicine
2. Davidson's self-assessment questions
3. Harrison's Textbook of Medicine
4. Harrison's self-assessment questions
5. Medical Knowledge Self-Assessment and Practice (MKSAP)
6. Current Textbook of Medicine
7. Med Studies Reviews
8. Massachusetts Internal Medicine Practice
9. UpToDate

Note:

This list is intended for use as a study aid only. NIHS does not intend the list to imply endorsement of these specific references, nor are the exam questions necessarily taken solely from these sources.

Purpose of the exam

The exam is designed to assess foundational knowledge and clinical reasoning skills acquired during the first year of training. The part 1 examination evaluates the candidate's ability to understand disease mechanisms, pathophysiology, generate differential diagnosis, generate initial management plans, interpret fundamental diagnostic tests, and understand foundations of pharmacotherapy across a wide range of common acute and chronic medical conditions across inpatient and ambulatory outpatient settings.

Exam content

The blueprint is developed by the NIHS and is reviewed annually and updated as needed. The medical content categories are shown below, with the percentage assigned to each section for a typical exam.

Blueprint Outline

No.	Section	Percentage
1	Allergy and Immunology	1%
2	Cardiovascular Disease	12%
3	Critical Care	5%
4	Dermatology	2%
5	Endocrinology, Diabetes and Metabolism	12%
6	Gastroenterology	10%
7	Hematology	8%
8	Infectious Disease	9%
9	Nephrology	12%
10	Neurology	8%
11	Medical oncology	5%
12	Pulmonology	8%
13	Rheumatology	5%
14	Geriatrics	2%
15	Miscellaneous	1%
Total		**100%**

The primary sections can be expanded for additional detail to show topics that may be covered in the exam. Below is each major section with their subsection topics that may be covered in the examination. Ambulatory medicine topics are incorporated within the various sections and subsections.

Section	Subsection
Allergy and Immunology	Anaphylaxis Food and drug allergy Urticaria and angioedema Primary immunodeficiency disorders Allergic complications of transfusions Autoimmune systemic disorders
Cardiovascular disease	Hypertension Pericardial disease Ischemic heart disease Dysrhythmias and conduction defects Congenital heart disease in adults Valvular heart disease Myocardial disease Endocarditis and other cardiovascular infections Vascular disease Syncope Pre-operative consultation
Critical care	Respiratory failure Acute respiratory distress syndrome Mechanical ventilation Non-invasive ventilation Bacteremia and sepsis syndromes Sedation and delirium Toxicology Post cardiac arrest care
Dermatology	Dermatitis Vascular dermatoses Vesiculobullous dermatoses Pigment disorders Photosensitivity dermatoses Nodules and tumors of the skin Cutaneous manifestations of nutritional deficiencies Cutaneous manifestations linked with connective tissue diseases Dermatologic emergencies
Endocrinology, Diabetes and Metabolism	Adrenal disorders Thyroid disorders Endocrine causes of secondary hypertension Lipid disorders Ovarian disorders

	Male hypogonadism Diabetes mellitus Disorders of calcium metabolism and bone Hypothalamic disorders Anterior pituitary disorders Posterior pituitary and water homeostasis Endocrine tumors and endocrine manifestations of tumors
Gastroenterology	Esophageal disease Stomach and duodenal disease Small intestinal disease Colonic and anorectal disease Pancreatic disease Biliary tract disease Liver disease Gastrointestinal hemorrhage
Hematology	Hypoproliferative anemia Hemolytic anemia Hemoglobinopathies and thalassemia Leukocyte disorders Platelet disorders Coagulation factor and thrombotic disorders Porphyria Myeloproliferative disorders Myelodysplastic syndromes Hematologic malignancies Principles and complications of transfusion medicine Complications of bone marrow transplantation
Infectious Disease	Skin and soft tissue infection Central nervous system infections Upper and lower respiratory tract infections Eye infections Endocarditis and other cardiovascular infections Hepatic infections Enteric infections Acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV) infection Sexually transmitted infections and infections of reproductive organs Urinary tract infections Infectious arthritis Osteomyelitis Bacteremia and sepsis syndrome

	Nosocomial infections Travel-related illness Infectious disease outbreaks Fever of unknown origin Prevention of infectious disease – immunization and prophylaxis
Nephrology	Acute kidney injury Chronic kidney disease Tubulointerstitial disease Glomerular disorders Nephrolithiasis Water and electrolyte balance Hematuria Renal replacement therapy
Neurology	Seizures Cerebrovascular disease Headache Nerve root syndromes and spine lesions Peripheral neuropathy Cranial neuropathy Disorders of cerebral function Movement disorders Central nervous system infections Central nervous system tumors Diseases of muscle and neuromuscular junction Multiple sclerosis and other demyelinating diseases Other neurological disorders: Head injury Idiopathic intracranial hypertension, cerebellar ataxia, motor neuron disease, neuroleptic malignant syndrome, vertigo, gait and balance disorders
Medical oncology	Lung cancer Breast cancer Neoplasms of the head and neck Gastrointestinal and hepatic cancer Urologic cancer Gynecologic cancer Bone tumors Central nervous system tumors Skin cancer Soft tissue cancer Oncologic complications of HIV infection

	Cancer of unknown primary Cancer prevention Cancer screening Oncologic emergencies Complications of cancer and its treatment Cancer survivorship Palliative care
Pulmonary Disease	Obstructive airway disease Occupational and environmental lung disease Restrictive lung disease Interstitial lung disease Pulmonary vascular disease Pleural disease Congenital lung disease Sleep medicine Evaluation of common pulmonary symptoms: cough, dyspnea, hemoptysis Solitary pulmonary nodule
Rheumatology	Crystal-induced arthropathy Spondyloarthropathies Rheumatoid arthritis Systemic lupus erythematous Systemic sclerosis Vasculitis Other primary rheumatic disorders Infectious arthritis Osteoarthritis
Geriatrics	Pressure injuries Venous ulcers and chronic wounds End-of-life care Constipation in the elderly Disorders of swallowing Incontinence Dementia and delirium Dizziness and vertigo Nutrition Mood, sleep and behavioral and psychological disorders Falls and osteoporosis Clinical pharmacology and aging Frailty
Miscellaneous	Epidemiology Ethics

	Patient safety and quality improvement

Note:

- The percentages described are approximate, and the exact exam content may vary. Blueprint distributions of the examination may differ up to +/-2% in each category.

- Percentages and content are subject to change at any time. See the website for the most up-to-date information.

- Research, Ethics, Professionalism, and Patient Safety are incorporated within the various domains.

Example Questions EXAMPLE OF K2 QUESTIONS
Question 1

A 78-year-old woman presents with recent onset of bilateral calf discomfort and severe pain in her left greattoe at rest, which is not affected by leg position. There is no recent trauma. She takes atenolol and hydrochlorothiazide for hypertension. An examination confirms afourthheartsoundandgrade2/6systolicmurmuralongthe left sternal border. The left first third, and fourth toes are exquisitely tender, cool, and cyanotic. All pulses are palpable (see image and lab results).

Blood pressure	156/90 mmHg
Heart rate	62 /min
Respiratory rate	18/min
Temperature	36.6° C

Test	**Result**	**Normal Values**
WBC	9.8	4-10.5 x 109/L
HCT	0.38	0.36-0.47
Platelet count	356	140-400x109/L
ESR	75	<30 mm/hr
Blood urea nitrogen	48	2.8-8.9 mmol/L

Which of the following is the most appropriate diagnostic test?

A. Uric acid
B. Cryoglobulin
C. Calf muscle biopsy
D. Antinuclear antibody

EXAMPLE OF K1 Question 2

Which of the following conditions related mortality will be reduced by long-term oxygen therapy?

A. Cystic fibrosis
B. Chronic asthma
C. Cryptogenic fibrosing alveolitis
D. Cor pulmonale due to chronic airflow obstruction