

Contenido para el Examen Nacional de Residencias Universitarias - Ciencias Médicas Clínicas

(versión del contenido en Inglés)

TABLE OF CONTENTS

1. General Principles
 - Infancy and Childhood
 - Adolescence
 - Senescence
 - Medical Ethics and Jurisprudence
 - Applied Biostatistics and Clinical Epidemiology
2. Infectious and Parasitic Diseases
3. Neoplasms
4. Immunologic Disorders
5. Diseases of the Blood and Blood-forming Organs
6. Mental Disorders
7. Diseases of the Nervous System and Special Senses
8. Cardiovascular Disorders.
9. Diseases of the Respiratory System
10. Nutritional and Digestive Disorders
11. Gynecologic Disorders
12. Renal, Urinary, and Male Reproductive Systems
13. Disorders of Pregnancy, Childbirth, and the Puerperium
14. Disorders of the Skin and Subcutaneous Tissues
15. Diseases of the Musculoskeletal System and Connective Tissue
16. Endocrine and Metabolic Disorders
17. Congenital Anomalies
18. Conditions Originating in the Perinatal Period
19. Symptoms, Signs, and Ill-defined Conditions
20. Injury and Poisoning

1. General Principles

Infancy and Childhood

- Normal growth and development

Adolescence

- Sexuality; separation from parents/autonomy; physical changes of puberty

Senescence

- Normal physical and mental changes associated with aging

Medical Ethics and Jurisprudence

- Consent and informed consent to treatment (eg, full disclosure, alternate therapies, risks and benefits) and research issues (eg, consent, placebos, conflict of interest, vulnerable populations)
- Physician-patient relationship (eg, truth-telling, confidentiality, privacy, autonomy, public reporting)

- Death and dying (eg, diagnosing death, life-support, autopsy, organ donation, euthanasia, suicide) and birth-related issues (eg, prenatal diagnosis, abortion, maternal-fetal conflict)

Applied Biostatistics and Clinical Epidemiology

- Understanding statistical concepts of measurement in medical practice
- Interpretation of the medical literature

2. Infectious and Parasitic Diseases

(Topic covered under each organ system)

3. Neoplasms

(Topic covered under each organ system)

4. Immunologic Disorders

Health and Health Maintenance

- Anaphylaxis and other allergic reactions
- HIV infection/AIDS
- Immunization against infectious agents (including infants, children, adults, the elderly; patients having compromised immune systems)

Mechanisms of Disease

- Abnormalities of cell-mediated immunity
- Abnormalities of humoral immunity.

4. Immunologic Disorders (continued)

Diagnosis

- Anaphylactic reactions and shock
- Connective tissue disorders (eg, mixed connective tissue disease and systemic lupus erythematosus)
- HIV infection/AIDS; deficiencies of cell-mediated immunity
- Deficiencies of humoral immunity; combined immune deficiency

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only

5. Diseases of the Blood and Blood-forming Organs

Health and Health Maintenance

- Anemia (iron deficiency, vitamin-related, drug-induced, sickle cell)
- Infection (systemic)

Mechanisms of Disease

- Red cell disorders
- Coagulation disorders
- White cell disorders, including leukopenia, agranulocytosis, and neoplasms

Diagnosis

- Anemia, disorders of red cells, hemoglobin, and iron metabolism (eg, blood loss; iron deficiency anemia, nutritional deficiencies; pernicious anemia, other megaloblastic anemias; hemolytic; anemia associated with chronic disease; aplastic anemia, pancytopenia; thalassemia; methemoglobinemia, sickle cell disease; polycythemia vera; hemochromatosis)
- Bleeding disorders, coagulopathies, thrombocytopenia (eg, hemophilia, von Willebrand's disease; qualitative and quantitative platelet deficiencies; disseminated intravascular coagulation; hypofibrinogenemia; idiopathic thrombocytopenic purpura; hemolytic-uremic syndrome)
- Leukopenic disorders, agranulocytosis
- Neoplastic disorders (eg, Hodgkin's disease, non-Hodgkin's lymphomas; acute leukemia in children; acute leukemia in adults; chronic leukemic states; mycosis fungoides; multiple myeloma)
- Eosinophilia and reactions to transfusion of blood components including complications
- Infection (eg, sepsis, malaria, mononucleosis)

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only.

6. Mental Disorders

Health and Health Maintenance

- Early identification and intervention (eg, suicide potential, depression, alcohol/substance abuse, family involvement in schizophrenia)

Mechanisms of Disease

- Biologic markers of mental retardation syndromes
- Biologic markers of mental disorders
- Intended/unintended effects of therapeutic interventions, including effects of drugs on neurotransmitters

Diagnosis

- Mental disorders usually first diagnosed in infancy, childhood or adolescence (eg, mental

retardation; communication disorders; pervasive developmental disorders; attention-deficit/hyperactivity disorder; disruptive disorders; tic disorders; elimination disorders)

- Substance-related disorders (eg, alcohol and other substances)
- Schizophrenia and other psychotic disorders
- Mood disorders (eg, bipolar disorder s; major unipolar depressive disorders; dysthymic disorder; mood disorder due to a general medical condition; medication-induced mood disorder)
- Anxiety disorders (eg, panic disorder; phobia; obsessive-compulsive disorder; post-traumatic stress disorder; generalized anxiety disorder; acute stress disorder; separation anxiety disorder; anxiety due to a general medical condition; substance-induced anxiety disorder)
- Somatoform disorders (eg, factitious disorder; somatization disorder; pain disorder; conversion disorder; hypochondriasis)
- Other disorders/conditions (eg, sexual and gender identity disorders; personality disorders; child, spouse, elder abuse; eating disorders; adjustment disorders; dissociative disorders; psychological factors affecting medical conditions)

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only

7. Diseases of the Nervous System and Special Senses

Health and Health Maintenance

- Cerebrovascular disease, cerebral infarction
- Toxic injuries, occupational disorders and nutritional deficiencies (affecting the nervous system, eyes, and ears, including lead poisoning, carbon monoxide, and organophosphate)
- Infection involving the nervous system, eyes, or ears
- Degenerative and demyelinating disorders, including Alzheimer's disease and multiple sclerosis.

7. Diseases of the Nervous System and Special Senses (continued)

Mechanisms of Disease

- Localizing anatomy:
 - brain and special senses
 - brain stem
 - spinal cord
 - neuromuscular system
- Anatomy of cerebral circulation
- Increased intracranial pressure and altered state of consciousness
- Infection
- Degenerative/developmental and metabolic disorders

Diagnosis

- Disorders of the eye (eg, blindness; glaucoma; infection; papilledema; optic atrophy; retinal disorders; diabetic retinopathy; diplopia; cataract; neoplasms; vascular disorders; uveitis; iridocyclitis; traumatic, toxic injury; toxoplasmosis)
- Disorders of the ear, olfaction, and taste (eg, deafness, hearing loss, otitis, mastoiditis; toxic damage; vertigo, tinnitus, Meniere's disease; acoustic neuroma; traumatic, toxic injury)
- Disorders of the nervous system:
 - paroxysmal disorders (eg, headache; trigeminal neuralgia; epilepsy; syncope)
 - cerebrovascular disease (eg, intracerebral hemorrhage; ischemic disorders; aneurysm,

subarachnoid hemorrhage; cavernous sinus thrombosis)

- traumatic, toxic injury (including lead, carbon monoxide, organophosphate)
- infections (eg, bacterial, fungal, viral, opportunistic infection in immunocompromised patients; Lyme disease; abscess; neurosyphilis; Guillain-Barré syndrome)
- neoplasms (eg, primary; metastatic; neurofibromatosis)
- metabolic disorders (eg, metabolic encephalopathy, vitamin B₁₂ [cyanocobalamin] deficiency, vitamin B₁ [thiamine] deficiency; coma, confusion, delirium, dementia)
- degenerative and developmental disorders (eg, Alzheimer's disease; Huntington's disease; parkinsonism; amyotrophic lateral sclerosis; Tay-Sachs disease; multiple sclerosis; cerebral palsy; dyslexia)
- neuromuscular disorders, gait abnormalities, and disorders relating to the spine and spinal nerve roots (eg, myasthenia gravis; muscular dystrophy; peripheral neuropathy; neck pain; cervical radiculopathy; lumbosacral radiculopathy; spinal stenosis)
 - sleep disorders
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Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only.

8. Cardiovascular Disorders Health and Health Maintenance

- Arterial hypertension
- Atherosclerosis and coronary artery disease; hyperlipidemia
- Prevention of rheumatic heart disease, thromboembolic disease, pulmonary emboli, bacterial endocarditis

Mechanisms of Disease

- Cardiac output, resistance, central venous pressure
- Valvular stenosis, incompetence
- Congenital heart disease
- Regulation of blood pressure
- Disorders of the arteries and veins

Diagnosis

- Dysrhythmias; palpitations, syncope (eg, premature beats; paroxysmal tachycardias; atrial flutter and fibrillation; bradycardias; ventricular fibrillation; cardiac arrest)
- Heart failure (congestive, diastolic, systolic dysfunction), dyspnea, fatigue, peripheral edema of cardiac origin (eg, chronic heart failure; cor pulmonale)
- Ischemic heart disease; chest pain of cardiac origin (eg, angina pectoris; coronary insufficiency; myocardial infarction)
- Diseases of the myocardium (eg, hypertrophic; myocarditis)
- Diseases of the pericardium (eg, acute pericarditis; chronic constrictive pericardiopathy; pericardial effusion; pericardial tamponade)
- Valvular heart disease (eg, acute rheumatic fever; mitral and aortic valve disorders; infective endocarditis)
- Congenital cardiovascular disease (eg, patent ductus arteriosus; atrial septal defect; ventricular septal defect; endocardial cushion defect; tetralogy of Fallot; coarctation of the aorta)
- Systemic hypotension, hypovolemia, cardiogenic shock, cyanosis
- Arterial hypertension (eg, essential; secondary)

- Atherosclerosis - lipoproteins
- Disorders of the great vessels (eg, dissecting aortic aneurysm; ruptured aneurysm; aortoiliac disease)
- Peripheral arterial vascular diseases, vasculitis (eg, polyarteritis; temporal arteritis; arteriovenous fistula)
- Diseases of the veins, peripheral edema (eg, varicose veins; thrombophlebitis; deep venous thrombosis)
- Traumatic injury

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only.

9. Diseases of the Respiratory System Health and Health Maintenance

- Chronic bronchitis, asthma, emphysema, carcinoma of the larynx, carcinoma of the lung; pulmonary aspiration, atelectasis; tuberculosis

Mechanisms of Disease

- Ventilatory dysfunction (eg, obstructive disorders: asthma, chronic obstructive pulmonary disease, cystic fibrosis, bronchitis, bronchiectasis, emphysema)
- Respiratory failure (eg, interstitial pneumonitis, pulmonary edema, acute respiratory distress syndrome, ventilation failure)
- Circulatory dysfunction
- Neoplastic disorders

Diagnosis

- Disorders of the nose, paranasal sinuses, pharynx, larynx, and trachea (eg, rhinitis; pharyngitis, tonsillitis, peritonsillar abscess; thrush; sinusitis; acute laryngotracheitis; epiglottitis; carcinoma of the larynx; laryngeal, pharyngeal obstruction, obstruction, trauma; tracheoesophageal fistula)
- Infections of the lung (eg, acute bronchiolitis; pneumonia; tuberculosis)
- Obstructive airways disease (eg, chronic bronchitis, bronchiectasis; asthma, bronchospasm, wheezing; emphysema, α 1-antitrypsin deficiency; cystic fibrosis)
- Atelectasis, aspiration
- Pneumothorax, hemothorax, traumatic injury to the lungs
- Pneumoconiosis, fibrosing or restrictive pulmonary disorders (eg, asbestosis; silicosis; sarcoidosis)
- Respiratory failure, hypoxia, hypercapnia, dyspnea (eg, respiratory distress syndrome of the newborn; acute respiratory distress syndrome; acute and chronic respiratory failure; drowning)
- Pulmonary vascular disorders (eg, pulmonary embolism; pulmonary hypertension; pulmonary edema)
- Disorders involving the pleura (eg, pleurisy; pleural effusion)
- Neoplastic disorders of the lungs and pleura (eg, primary tumors; metastatic tumors)

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only

- Management decision (treatment/diagnosis steps)
- Treatment only.

10. Nutritional and Digestive Disorders Health and Health Maintenance

- Screening (eg, cancer)
- Viral hepatitis and alcohol-related hepatopathy

Mechanisms of Disease

- Malabsorption/malnutrition
- Jaundice
- Infections/parasites
- Obstruction/mechanical

Diagnosis

- Disorders of the mouth, salivary glands, oropharynx, and esophagus (eg, dental disorders; disorders of the salivary glands; esophageal reflux; dysphagia; motility disorders of the esophagus; hiatal hernia; carcinoma of the esophagus)
- Disorders of the stomach, small intestine, colon, and rectum/anus (eg, gastritis; peptic ulcer disease; congenital disorders; malabsorption; appendicitis; granulomatous enterocolitis; ischemic colitis; irritable bowel syndrome; diverticula; colonic polyps; ulcerative colitis; peritonitis; bowel obstruction, volvulus, intussusception; hernia; necrotizing enterocolitis; infection; carcinoma of the stomach, colon, and rectum; antibiotic-associated colitis; hemorrhoids; anal fissures; anal fistula; perianal/perirectal abscess)
- Disorders of the pancreas (eg, pancreatitis; pseudocyst; carcinoma of the pancreas)
- Disorders of the liver and biliary system (eg, hepatitis; cirrhosis; hepatic failure, hepatic encephalopathy, jaundice; portal hypertension; ascites, esophageal varices; cholelithiasis; cholecystitis; hepatic abscess, subphrenic abscess; neoplasms of the liver; storage diseases; neoplasms of the biliary tract)
- Traumatic injury and poisoning (including drain cleaner ingestion)

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only.¹⁴

11. Gynecologic Disorders Health and Health Maintenance

- Postmenarchal/reproductive
- Peri/postmenopausal

Mechanisms of Disease

- Infections (eg, vulvovaginitis; pelvic inflammatory disease; toxic shock; sexually transmitted disease; endometritis; urethritis; Bartholin's gland abscess; abscess of the breast; mastitis)
- Urinary incontinence and obstruction
- Neoplasms
- Menstrual and endocrinologic disorders; infertility

Diagnosis

- Pelvic relaxation and urinary incontinence (eg, UTI; uterovaginal prolapse; cystocele, rectocele,

urethrocele)

- Neoplasms (eg, cervical dysplasia, cancer; leiomyomata uteri; endometrial cancer; ovarian neoplasms; neoplastic disorders of the breast; vulvar neoplasms)
- Benign conditions of the breast
- Menstrual and endocrinologic disorders (eg, amenorrhea [including undiagnosed pregnancy]; abnormal uterine bleeding; dysmenorrhea; menopausal, postmenopausal disorders [osteoporosis]; premenstrual syndrome; hirsutism, virilization; ovarian disorders [ovarian failure, polycystic ovarian disease])
- Sexual abuse and rape

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only

12. Renal, Urinary, and Male Reproductive Systems Health and Health Maintenance

- Infection (eg, urinary tract, sexually transmitted diseases [male])
- Acute and chronic renal failure including risk factors and prevention and methods of limiting progression
- Male health maintenance examination (eg, testicular, prostatic)

Mechanisms of Disease

- Disorders of the male reproductive system
- Urinary incontinence and obstruction, enuresis
- Renal insufficiency/failure
- Electrolyte and water metabolism and acid-base balance.

12. Renal, Urinary, and Male Reproductive Systems (continued)

Diagnosis

- Disorders of the male reproductive system (eg, infections; torsion of the testis; undescended testicle; neoplasms of the testis; benign prostatic hyperplasia; carcinoma of the prostate; hypospadias; hydrocele, varicocele; urethral stricture, impotence, ejaculation)
- Disorders of the urinary bladder and urinary collecting system (eg, cystitis; pyelitis; dysuria, hematuria, pyuria; carcinoma of the bladder; urolithiasis; ureteral reflux; neurogenic bladder; urinary incontinence; enuresis; obstruction; hydronephrosis)
- Disorders of the kidneys (eg pyelonephritis; glomerulonephritis; interstitial nephropathy; renal insufficiency and failure; oliguria, anuria, azotemia, uremia, renal osteodystrophy; hypertensive renal disease; lupus nephritis; inherited disorders)
- Traumatic injury

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only

13. Disorders of Pregnancy, Childbirth, and the Puerperium Health and Health Maintenance

- Prenatal care (eg, nutrition; prevention of iron deficiency; prevention of vitamin deficiency; Rh immunoglobulin prophylaxis; prenatal diagnosis; teratology, diabetes mellitus, urinary tract infection, a-fetoprotein, rubella, genital herpes, streptococcal infections)
- Assessment of the at-risk pregnancy; risk of preterm labor
- Intrapartum care; signs of fetal compromise
- Contraception; sterilization; prevention of pregnancy after rape

Mechanisms of Disease

- Placenta, placental dysfunction
- Pregnancy and labor including infection
- Postpartum disorders including infection
- Fetus and newborn.

13. Disorders of Pregnancy, Childbirth, and the Puerperium (continued)

Diagnosis

- Pregnancy and labor including obstetric complications (eg, ectopic pregnancy; spontaneous abortion/septic abortion; hypertension; third-trimester bleeding; hydramnios; preterm labor, premature rupture of the membranes, normal labor; multiple gestation; intrapartum fetal distress/fetal death; maternal mortality; fetal growth and development abnormalities; congenital abnormalities; gestational trophoblastic disease)
- Nonobstetric complications of pregnancy (eg, major medical complications and preexisting medical conditions; surgical complications; hyperemesis gravidarum)
- Complications of the puerperium (eg, problems with breast-feeding; postpartum hemorrhage; postpartum sepsis; postpartum depression, psychosis; mastitis; venous thromboembolism)

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only

14. Disorders of the Skin and Subcutaneous Tissues

Health and Health Maintenance

- Epidemiology and prevention of skin disorders secondary to exposure to the sun; contact dermatitis and drug reactions; decubitus ulcers; dermatophytic skin disorders

Mechanisms of Disease

- Skin disorders, including cancer, infections, and inflammatory disorders

Diagnosis

- Infections (eg, herpes simplex, herpes zoster, chickenpox; cellulitis, carbuncle, abscess, gangrene; dermatophytoses; pilonidal cyst; viral warts; decubitus ulcers)
- Neoplasms (eg, squamous cell carcinoma; melanoma; actinic keratosis, basal cell carcinoma; pigmented nevi; hemangiomas)
- Other skin disorders (eg, industrial, occupational, and atopic dermatitis; psoriasis; seborrhea; acne)

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only.

15. Diseases of the Musculoskeletal System and Connective Tissue Health and Health Maintenance

- Epidemiology, impact, and prevention of degenerative joint and disc disease
- Prevention of disability due to musculoskeletal disorders or infection (eg, osteomyelitis; septic arthritis; Lyme disease; gonococcal tenosynovitis)

Mechanisms of Disease

- Infections
- Nerve compressions and degenerative, metabolic, and nutritional disorders
- Inherited, congenital, or developmental disorders
- Inflammatory or immunologic disorders

Diagnosis

- Infections (eg, osteomyelitis; septic arthritis; Lyme disease; gonococcal tenosynovitis)
- Degenerative, metabolic, and nutritional disorders (eg, degenerative joint disease; degenerative disc disease; gout; rickets)
- Inherited, congenital, or developmental disorders (eg, congenital hip dysplasia; phocomelia; osteochondritis; slipped capital femoral epiphysis; scoliosis; syringomyelia, dislocated hip in infantile spinal muscular atrophy)
- Inflammatory, immunologic, and other disorders (eg, polymyalgia rheumatica; lupus arthritis; polymyositis -dermatomyositis; rheumatoid arthritis; ankylosing spondylitis; bursitis; tendinitis; myofascial pain; fibromyalgia; shoulder-hand syndrome; Dupuytren's contracture; Paget's disease)
- Neoplasms (eg, osteosarcoma; metastases to bone; pulmonary osteoarthropathy)
- Traumatic injury and nerve compression and injury (eg, fractures, sprains, dislocations, carpal tunnel syndrome; cauda equina syndrome)

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only

16. Endocrine and Metabolic Disorders Health and Health Maintenance

- Diabetes mellitus, including prevention of morbidity and mortality due to complications
- Screening (eg, cancer)

Mechanisms of Disease

- Thyroid function
- Diabetes mellitus and carbohydrate metabolism
- Parathyroid and calcium metabolism
- Pituitary and hypothalamic function

- Adrenal function.

16. Endocrine and Metabolic Disorders (continued)

Diagnosis

- Thyroid disorders (eg, nodule; carcinoma; acquired hypothyroidism; thyroiditis; thyrotoxicosis; congenital hypothyroidism; goiter)
- Diabetes mellitus (eg, type 1, type 2; ketoacidosis; hyperosmolar coma; chronic complications)
- Hypoglycemia; hyperinsulinism and parathyroid disorders (eg, iatrogenic; insulinoma)
- Parathyroid and calcium (eg, hyperparathyroidism; hypoparathyroidism)
- Pituitary, hypothalamic disorders (eg, diabetes insipidus; inappropriate ADH secretion; panhypopituitarism; acromegaly)
- Adrenal disorders (eg, corticoadrenal insufficiency; Cushing's syndrome; adrenogenital syndrome; hyperaldosteronism; pheochromocytoma)
- Heat-related illness

Principles of Management

(With emphasis on topics covered in Diagnosis)

- Pharmacotherapy only
- Management decision (treatment/diagnosis steps)
- Treatment only

17. Congenital Anomalies

(Topic covered under each organ system)

18. Conditions Originating in the Perinatal Period

(Topic covered under Disorders of Pregnancy, Childbirth, and the Puerperium [category 13])

19. Symptoms, Signs, and Ill-defined Conditions

(Topic covered under each organ system)

20. Injury and Poisoning

(Topic covered under each organ system)