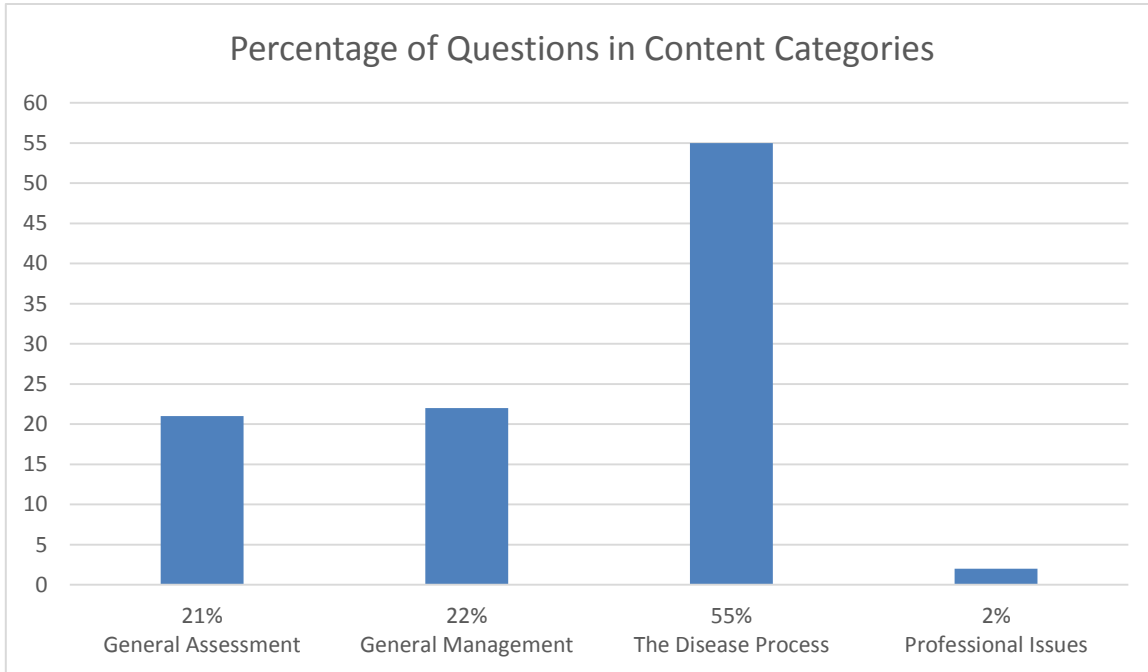


EXAMINATION CONTENT
CONDENSED EXAM OUTLINE



Neonatal Nurse Practitioner exam



The above chart shows the percentage distribution of questions on the Neonatal Nurse Practitioner exam across the major content categories covered on the examination. The major focus of the examination is on The Disease Process and the General Management. Less emphasis is on general assessment and the professional issues category has the lowest percentage of content covered on the exam.

EXAMINATION CONTENT

CONDENSED EXAM OUTLINE

CONDENSED EXAM OUTLINE

Areas of knowledge to be tested on the Neonatal Nurse

Practitioner examination are listed in the following outline.

This list is not intended as an all-inclusive review of the role and scope of knowledge of the neonatal nurse practitioner. It is provided only to help certification candidates evaluate their own nursing practice.

Percentages identified for the topic areas represent the number of test questions assigned to each content area. These areas do not necessarily reflect the content of future examinations.

- 11.00 General Assessment (21%)

- 11.01 Maternal History Affecting the Newborn
 - 1. Antepartum
 - 2. Intrapartum
- 11.02 Neonatal
 - 1. Physical Examination & Gestational Age/Behavioral Assessment
 - 2. Clinical Laboratory Tests
 - 3. Diagnostic Procedures, Techniques and Equipment
- 11.03 Family Integration
 - 1. Family Integration and Communication
 - 2. Grieving Process
- 11.04 Discharge Planning and Follow Up
- 12.00 General Management (22%)

- 12.01 Thermoregulation
- 12.02 Resuscitation & Stabilization
- 12.03 Nutrition
- 12.04 Fluids and Electrolytes
- 12.05 Pharmacology
 - 1. Principles of Pharmacology
 - 2. Drug Therapies
- 13.00 The Disease Process (55%)

- (Embryology, Physiology and Pathophysiology)*
- 13.01 Cardiac
- 13.02 Pulmonary
- 13.03 Gastrointestinal
- 13.04 Renal/Genitourinary
- 13.05 Metabolic/Endocrine
- 13.06 Hematopoietic
- 13.07 Infectious Diseases
- 13.08 Musculoskeletal
- 13.09 Integumentary
- 13.10 Genetics
- 13.11 Neurological
- 13.12 Ears, Eyes, Nose & Mouth/Throat
- 13.13 Intrauterine Drug Exposure
- 14.00 Professional Issues (2%)

- including: Evidence Based Practice, Legal/Ethical/Communication Issues, Research, Patient Safety*

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

ASSOCIATED COMPETENCIES

- Demonstrate the knowledge inherent in the role scope of the NNP.
- Apply knowledge of basic sciences to the provision of neonatal health care
- Obtain and interpret a comprehensive history and physical.
- Obtain clinical laboratory information and interpret the resultant data
- Institute appropriate diagnostic procedures and techniques and interpret the resultant data
- Apply critical thinking to diagnose reasoning and clinical decision make with the care giver and family
- Evaluate the benefits and risks of diagnostic and therapeutic intervention
- Distinguishes bet NL, valuations.....
- Use adult learning principles when teaching about the care, growth and development of the high risk infant up to one year of age
- Formulate a diagnosis and a plan of care in collaboration with physicians, other health care professionals and family.
- Initiate appropriate therapeutic and educational interventions including consultations and referral
- Evaluate and document responses to interventions and modify the plan of care as indicated
- Maintain current knowledge regarding advances in neonatal health care
- Apply knowledge of basic research principles to practice
- Maintain current knowledge regarding advances in neonatal health care
- Integrate legal and ethical principles into neonatal health care

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

GENERAL PHYSICAL ASSESSMENT

I. Maternal History Affecting the Newborn

Antepartum

- Neonatal Complications: Maternal Causes
- Gestational Hypertension
- Cardiac/Pulmonary Disease
- Diabetes
- Common Infectious Diseases
- Common Hematologic Diseases
- Substance Abuse
- Medication Effects
 - Common Prescription or Non-Prescription Drugs
- Fetal assessment
 - Fetal fibronectin
 - Nonstress test
 - Biophysical profile
 - Ultrasound
 - Amniocentesis
 - Antenatal Screening/ Triple Screen

Intrapartum

- Fetal Heart Rate (FHR) Patterns
- Effects on the Fetus/Neonate
 - Tocolysis
 - Induction
 - Analgesia
 - Anesthesia
- Intrapartum Complications
- Rupture of the Membranes
 - Premature
 - Prolonged

II. Neonatal

Physical Examination & Gestational Age/Behavioral Assessment Identify Normal, Normal Variants and Abnormal Findings

- General Appearance
- Head, Eyes, Nose, Ears and Mouth
- Neck and Throat
- Chest
- Abdomen
- Spine/Back

- Extremities
- Genitalia
- Musculoskeletal
- Skin
- Vital Signs
- Gestational Age Assessment Physical Characteristics of
 - Preterm
 - Term
 - Post-term
 - AGA
 - SGA
 - LGA
- Associated Risks/Complications of Variations in Gestational Age
- Abnormalities of Intrauterine Parameters
- Behavioral Assessment
 - State
- Muscle Movement/Tone/ Reflexes
- Autonomic Control/Responses
- Neurosensory Capabilities

Clinical Laboratory Tests

- Microbiological
- Biochemical
- Hematological
- Endocrine
- Immunologic
- Genetic

Diagnostic Procedures, Techniques and Equipment

Diagnostic Procedures

- Ultrasound/Doppler
- CT scan
- MRI
- X-ray/fluoroscopy
- EKG
- EEG
- Echocardiogram
- Voiding Cystourethrogram

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

Techniques & Equipment

- Procedures
 - Bag and Mask Ventilation and T-piece
 - LMA's
 - Endotracheal Intubation
 - Umbilical Vessel and Peripheral Catheterization
 - Chest Tube Insertion/Removal
 - Needle Aspiration
 - Spinal/Lumbar Tap
 - IO's
 - Intravenous Line Placement (Central/Peripheral)
 - Blood Sampling
 - Circumcisions - complications/contraindications
- Equipment
 - Cardiopulmonary Monitors
 - Oxygenation Equipment/End Tidal CO2 Monitoring
 - Invasive/Non-invasive Blood Gas Monitoring
 - Indwelling Catheters
 - Incubators/Radiant Warmers
 - Ventilators
 - Phototherapy

III. Family Integration Communication

- Family Integration and Communication
- Barriers to Parent/Infant Interaction

Grieving Process

- Stages of Grieving and Common Behaviors
- Factors Influencing Enhancement or Impediment of Grief Process

IV. Discharge Planning and Follow Up

- Anticipatory Guidance
- Follow up Screening
- Hearing
- Vision
- Developmental
- Health risks

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

GENERAL MANAGEMENT

I. Thermoregulation

- Mechanisms and Management of Heat Transfer
 - Evaporation
 - Conduction
 - Convection
 - Radiation
- Rewarming Techniques
- Mechanisms of Heat Production
- Temperature Assessment
- Neutral Thermal Environment

II. Resuscitation and Stabilization

- Transition to Extrauterine Life
- Delivery Room Assessment
- Techniques of Resuscitation
- Physiologic Basis for Interventions
- Cord Blood Gas Interpretation
- Neonatal Transport

III. Nutrition

- Physiology of Digestion and Absorption
- Nutritional Requirements
- Enteral Feeding
- Parenteral Nutrition
- Composition of Breast Milk/Formulas
- Dietary Supplementation

IV. Fluids and Electrolytes

- Common Problems and Conditions
- Fluid Requirements
- Electrolyte Requirements
- Insensible Water Loss/Gain
- Parenteral Infusion (Central v Peripheral)
- Acid Base Balance

IV. Pharmacology

Principles of Pharmacology

- Pharmacokinetics
 - Distribution
 - Excretion
 - Absorption
 - Metabolism
 - Withdrawal

- Principles of Administration
 - Dosage/Interval
 - Route
 - Tolerance/Weaning
- Drug and Maternal Related Factors
 - Placental Transfer
 - Drugs and Breastfeeding

Common Drug Therapies

- Analgesia/Narcotics
- Anticoagulants
- Anticonvulsants
- Antihypertensive Drugs
- Antimicrobials
 - Biologics/Immunities
 - Vaccinations
- Cardiovascular Drugs
 - Vasodilators/Vasopressors
 - Antidysrhythmia Drugs
- Diuretics
- GI Drugs
 - Antacids
 - ProkineticA
 - Proton Pump Inhibitors
- Inhalents
 - iNO
- Neurologic Agents
 - Anesthetics Agents
 - Sedatives
 - Hypnotics
- Respiratory Drugs
 - Bronchodilators
 - Respiratory Stimulants
 - Surfactant Therapy
- Steroids

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

THE DISEASE PROCESS (EMBRYOLOGY, PHYSIOLOGY, PATHOPHYSIOLOGY & MANAGEMENT)

I. Cardiac

Congenital Cardiac Defects

- Cyanotic
 - Ebstein's Anomaly
 - Tetralogy of Fallot
 - Truncus Arteriosus
 - Transposition of Great Vessels
 - Total Anomalous Pulmonary Venous Return
 - Tricuspid atresia
- Acyanotic
 - Patent Ductus Arteriosus
 - Ventricular Septal Defect
 - Coarctation of Aorta (Interrupted Arch)
 - Atrioventricular Septal Defect
 - Hypoplastic Left Heart Syndrome
 - Endocardial Cushion Defect (AV Canal)
 - Aortic Stenosis
- Congestive Heart Failure
- Hypertension/Hypotension
- Shock
- Dyshymias

II. Pulmonary

- Respiratory Distress Syndrome
- Pneumothorax and Air Leaks
- CPAM
- Apnea of Prematurity
- Meconium Aspiration
- Persistent Pulmonary Hypertension
- Pneumonia
- Pulmonary Hemorrhage
- Hypoplastic Lungs
- Diaphragmatic Hernia
- Bronchopulmonary Dysplasia
- Laryngeal, Tracheomalacia/ Stenosis
- Respiratory Support
 - Principles and Methods of Oxygen
 - Administration/Ventilation
 - Risk Factors Affecting Oxygenation/Ventilation
 - Oxyhemoglobin Dissociation Curve
 - High Frequency Ventilation
 - ECMO
 - Nitric Oxide

III. Gastrointestinal

- Development of the GI Tract
- Digestive and Absorptive Disorders
 - Diarrhea/Short Gut
- Disorders of Suck/Swallow/Motility
 - GERD
 - Cleft Lip Palate
 - Tracheoesophagal fistula
 - Esophageal atresia
 - Small left colon syndrome
 - Hirschsprung disease
 - Volvulus
 - Imperforate Anus
- Malabsorption/Maldigestion
- Diarrhea/Short Gut
- Anomalies/Obstruction of Upper and Lower GI Tract
 - Small left colon syndrome
 - Hirschsprung's disease
- Abdominal Wall Defects
 - Gastroschisis
 - Omphalocele
- Obstructions
- Perforations
- Meconium Ileus
- Diaphragmatic Eventrations
- Tracheoesophageal Fistula
- Necrotizing Enterocolitis
- Inguinal Hernia

IV. Renal/Genitourinary

- Renal Vein/Artery Thrombosis
- Acute Renal Failure/ Insufficiency
- Polycystic/multicystic Dysplastic Kidneys
- Urinary Outflow Tract Obstruction
- Testicular Torsion
- Extrophy of the Bladder
- Hypospadias/Epispadias
- Hydronephrosis/hydroureter

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

V. Endocrine/Metabolic

- Adrenal Disorders
- Ambiguous Genitalia
- Calcium Disorders
- Glucose Disorders
- Magnesium Disorders
- Phosphorus Disorders
- Pituitary Disorders
- Thyroid Disorders
- Infants of Diabetic Mothers
- Osteopenia of Prematurity

VI. Hematopoietic

- Hematological Disorders
 - Anemia
 - Polycythemia
 - Platelet disorders
 - Coagulopathies
 - Vitamin K Deficiency
 - Disseminated Intravascular Coagulation
 - Factor Deficiencies
 - Neutropenia/Neutrophilia
 - Rh Disease and ABO Incompatibility
- Blood Component Therapy
- Jaundice and Liver Disease
- Hyperbilirubinemia (Direct and Indirect)
 - Breastmilk Jaundice
- Kernicterus
- Phototherapy
- Exchange Transfusion
- Biliary Atresia

VII. Infectious Diseases

- Normal Immunologic Function
- Common Neonatal Infections
 - Group B Streptococcal
 - e-coli
 - Staphylococcal
 - Klebsiella
 - Enterococcus
 - Candidiasis
 - Pseudomonas
 - Enterovirus
 - Respiratory Syncytial Virus (RSV)
 - CMV
 - Hepatitis B
 - Toxoplasmosis
 - Herpes

- HIV/AIDS
- Chlamydia
- Gonorrhea
- Syphilis
- Varicella
- Neonatal Sepsis
- SIRS
- Meningitis
- Septic Shock
- Adjunct Therapies
- Infection Control and Universal Precautions
- MRSA/VRSE
- Osteomyelitis

VIII. Musculoskeletal

- Abnormalities of the Skeleton
 - Metatarsus Adductus
 - Achondroplasia
- Clubfoot
- Developmental dysplasia of the Hip
- Spinal abnormalities
- Achondroplasia
- Musculoskeletal Birth Injuries
 - Fractures
 - Nerve Damage
 - Torticollis
- Aperts, Crouzon, etc.

IX. Integumentary

- General Skin Development and Care
- Disorders
 - Ecchymosis
 - Epidermolysis Bullosa
 - Hemangiomas
 - Ichthyosis
 - Subcutaneous Fat Necrosis
- Milia/Miliara
- Hyperpigmented macule
- Erythema Toxicum
- Neonatal Pustular Melanosis
- Auricular Tags
- Petechiae
- Port Wine Stain
- Hyper/Hypopigmentation

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

X. Genetics

- Genetic Processes
 - Multifactorial Inheritance
 - Nondisjunction
 - Translocation
 - Deletion/Duplication
 - Sex Linked Inheritance
- Chromosomal Abnormalities/Syndromes
 - Trisomy 21
 - Trisomy 13
 - Trisomy 18
 - Turner Syndrome
 - Beckwith Syndrome
 - DiGeorge Syndrome
- Inborn Errors of Metabolism
- Hyperammonemia
- Newborn Screening
 - Galactosemia
 - Cystic Fibrosis
- Chromosomal Abnormalities/ Syndromes
 - Trisomy 21
 - Trisomy 13
 - Trisomy 18
 - Turner Syndrome
 - Beckwith Syndrome
 - DiGeorge Syndrome
- Osteogenesis Imperfecta
- Potter Syndrome
- VATER/VACTERL
- CHARGE

XI. Neurological

- Perinatal –Depression/Asphyxia
- Hypoxic Ischemic Encephalopathy
 - Therapeutic Hypothermia
- Cranial Hemorrhages
- Hydrocephalus
- Neural Tube Defects
- Seizures
- Jitteriness
- Periventricular Leukeuacia
- Auto regulation
- Cerebral Palsy

XII. Ears, Eyes, Nose and Mouth/Throat

- Eyes
 - Eye Prophylaxis
 - Cataracts
 - Coloboma
 - Glaucoma
 - Retinopathy of Prematurity
 - Strabismus
 - Conjunctivitis
- Nose
 - Nasolacrimal Duct Obstruction
 - Choanal Atresia
 - Deviated Septums
- Ears
 - Malformations
- Mouth/Throat
 - Cleft Lip and Palate
 - Micrognathia/Retrognathia
 - Macroglossia
- Airway Obstruction

XIII. Intrauterine Drug Exposure

Recognition, Care and Management of Neonate with Intrauterine Drug Exposure

- Nicotine
- Alcohol
- Prescription/Nonprescription
- Illicit Drugs

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

PROFESSIONAL ISSUES

Ethical Principles

- Autonomy
- Beneficence
- Non-maleficence
- Justice

Professional/Legal Issues

- Professional Regulation Practice
- Staffing issues
- Legal liability
 - Consent
 - Documentation/medical records

Negligence/malpractice

Evidence based practice

- Terminology
 - Reliability
 - Validity
 - Significance
 - Levels of Evidence
- Quality Improvement
- Research utilization

Patient Safety

- Communication
- Interprofessional practice

EXAMINATION CONTENT

STUDY RESOURCES

STUDY RESOURCES

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- Guido, Legal and Ethical Issues in Nursing, Pearson, 2013.
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