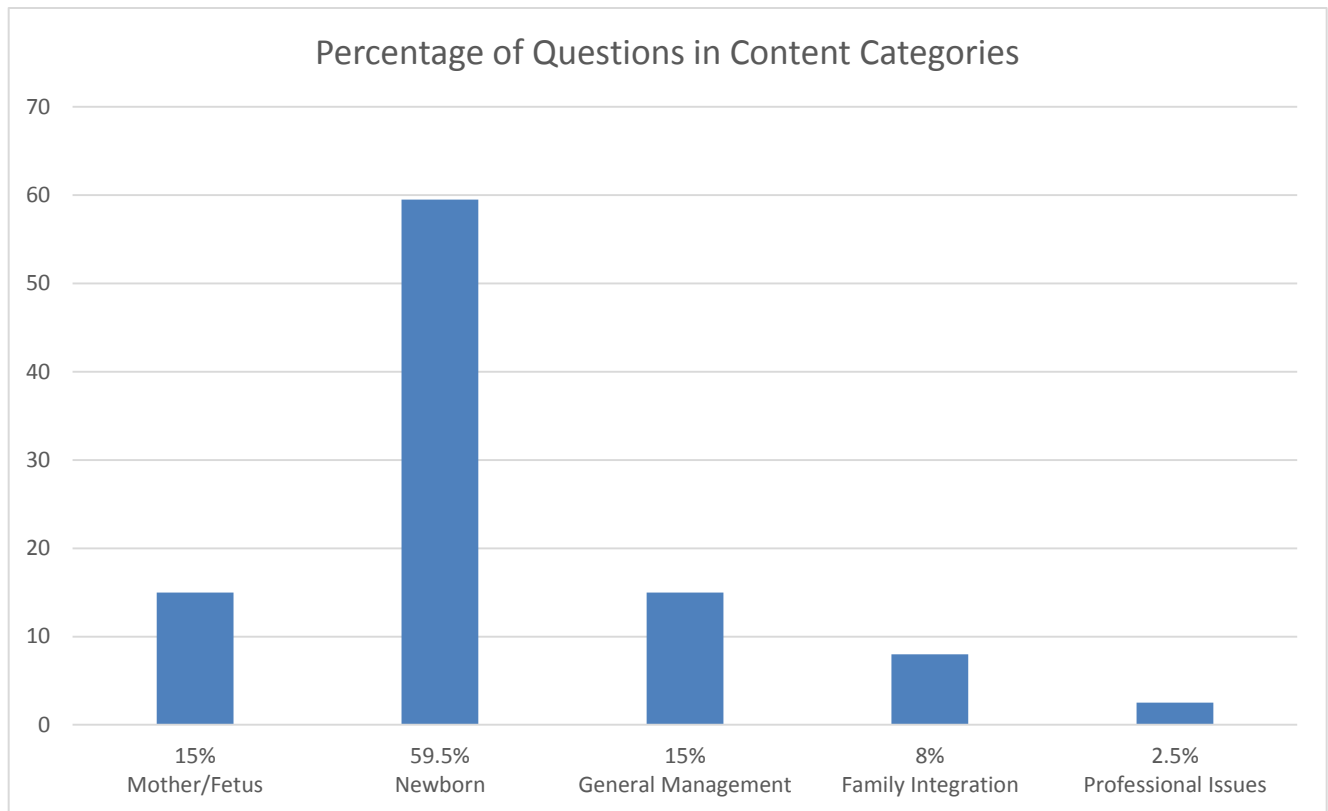


EXAMINATION CONTENT
CONDENSED EXAM OUTLINE



Low Risk Neonatal Nursing exam



The above chart shows the percentage distribution of questions on the Low Risk Neonatal Nursing exam across the major content categories covered on the examination. The major focus of the examination is the Newborn section and this area has the most emphasis. Lesser emphasis is on Mother/Fetus and General Management and Family Integration and Professional Issues having the least number of questions assigned to these content categories.

EXAMINATION CONTENT

CONDENSED EXAM OUTLINE

CONDENSED EXAM OUTLINE

This is an outline of topics and areas which may be included in the Low Risk Neonatal Nursing examination. It should be noted that the emphasis of the examination is on the newborn (birth to one month) and family components.

Content of the examination will cover assessment of all body systems and knowledge of normal and deviations from normal.

10.00 Mother/Fetus (15%)

10.01 Assessment and Evaluation of Intrauterine Environment

10.02 Maternal Factors and Complications Affecting the Fetus/Neonate

11.00 Newborn (59.5%)

Focus of the newborn section will be on physical examination techniques, procedures and findings, as well as assessment and management of normal and abnormal findings and identification of potential complications.

11.01 General Physiologic Assessment

- a. Gestational Age
- b. Clinical Laboratory & Diagnostic Data
- c. Thermoregulation
- d. Behavioral/Developmental

11.02 Physical Assessment and Management of Complications

- a. Systems
 1. Cardiac
 2. Respiratory
 3. Gastrointestinal
 4. Integumentary
 5. Musculoskeletal
 6. Head, Ears, Eyes, Nose and Throat
 7. Hematopoietic
 8. Neurological
 9. Immune System
 10. Endocrine/Metabolic
 11. Genitourinary
- b. Genetic Disorders
- c. Hyperbilirubinemia
- d. Perinatal Substance Abuse

12.00 General Management (15%)

12.01 Resuscitation & Stabilization

12.02 Neonatal Nutrition, Feeding and Lactation

12.03 Pharmacology

13.00 Family Integration (8%)

13.01 Role Adaptation

13.02 Discharge Planning/Home Care

14.00 Professional Issues (2.5%)

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

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

ASSOCIATED COMPETENCIES

- Demonstrate knowledge of maternal, fetal, and neonatal anatomy, physiology, pharmacology and nutrition
- Identify antepartal, intrapartal and postpartal risk factors related to the mother and fetus that impact the neonate
- Systematically assess the neonate, the family and their environment
- Interpret assessment data to determine health status of the neonate based on maternal history, gestation age examination and neurobehavioral assessment
- Develop, implement and evaluate an individualized plan of care to facilitate the neonate's adaptation to extrauterine life and to promote the health of the neonate
- Apply knowledge of anatomy and physiology, pathophysiology and nutrition to assess the neonate and differentiate abnormal from normal
- Identify life-threatening states and initiate appropriate interventions
- Apply knowledge of general concepts of care that determine and promote the health of the postpartal family in the hospital, in ambulatory settings and in the home environment
- Educate families about the biophysical, psychosocial and environmental needs of the neonate
- Demonstrate knowledge of factors that influence the integration of the neonate into the family and community
- Demonstrate knowledge of professional issues relative to maternal/neonatal

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

MOTHER - FETUS

FACTORS AFFECTING THE FETUS AND NEWBORN (ANTEPARTUM, INTRAPARTUM & POSTPARTUM)

I. Assessment & Evaluation of Intrauterine Environment

- Fetal Anatomy and Physiology
- Fetal Assessment
- GBS screening
- Nonstress testing
- Biophysical profile
- Alpha-fetoprotein/triple screening
- Cord gases

II. Maternal Factors and Complications Affecting the Fetus/Neonate

- Medical Conditions
 - Maternal age
 - Chronic hypertension
 - Diabetes
 - Blood disorders
 - Infectious diseases
 - Maternal depression

- Pregnancy Related
 - Gestational hypertension/ eclampsia/HELLP syndrome
 - Amniotic fluid disorders
 - Polyhydramnios
 - Oligohydramnios
 - Maternal hemorrhage
 - Placental abruption
 - Placenta previa
 - Multiple gestations
 - Postdatism
- Complications of Labor
 - Use of anesthesia and analgesia
 - Abnormal labor patterns
 - Abnormal fetal heart rate patterns
 - Operative birth
- Life-style and Environmental Conditions
 - Substance use
 - Teratogen exposure
 - Medication use

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

NEWBORN

Focus of the newborn section will be on physical examination techniques, procedures and findings, as well as assessment and management of normal and abnormal findings and identification of potential complications

I. General Physiologic Assessment

Gestational Age

- Physical Characteristics, Etiologies and/or Risks and Complications of
 - Preterm
 - Term
 - Post-term
 - Late preterm
 - AGA
 - SGA
 - LGA

- Intrauterine growth restriction
 - Symmetrical
 - Asymmetrical

Clinical Laboratory Tests (Interpretation of values, methods and techniques)

- Blood
- Glucose
- Complete blood count with differential
- Cultures
- Rh (Coombs)
- Blood gases
- Bilirubin
- Electrolytes
- Metabolic screening
 - Urine
 - Stool

Thermoregulation

- Mechanisms of Thermoregulation
 - Heat production
 - Temperature maintenance
- Complications
- Temperature assessment and interpretation
 - Equipment (e.g. infant warmers, incubators, servocontrol)

- Mechanisms of Heat Loss

- Insensible water loss
- Evaporation
- Conduction
- Convection
- Radiation

Behavioral/Developmental

- Sensory Capabilities
- Motor organization
- Neonatal States

II Physical Assessment and Management of Complications (By system)

Cardiac

- Basic physiology and anatomy
- Adaptation to extrauterine life
- Physical Assessment
 - Heart rate and sounds
 - Point of maximal intensity
 - Blood pressure
 - Peripheral pulses
 - Perfusion
 - Color
- Pulmonary vascular resistance
 - Complications/Variations
 - Congenital heart disease
 - Patent ductus arteriosus
 - Coarctation of the aorta
 - Congestive heart failure
 - Septal defects
 - Tetralogy of Fallot
 - Transposition of the great vessels

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

Respiratory

- Basic physiology and anatomy
- Adaptation to extrauterine life
- Physical Assessment
 - Respiratory rate and breath sounds
 - Respiratory patterns
 - Thorax and Chest
- Complications/Variations
 - Air leaks
 - Pneumothorax
 - Pneumomediastinum
 - Pneumonia
 - Respiratory distress syndrome
 - Transient tachypnea of the newborn
 - Persistent pulmonary hypertension
 - Meconium aspiration syndrome
 - Diaphragmatic hernia
- Oxygen administration /monitoring
 - Pulse oximetry
 - Cardiorespiratory monitoring

Gastrointestinal

- Basic physiology and anatomy
- Physical Assessment
 - Abdominal examination findings
 - Stooling patterns
- Complications/Variations
 - Diastasis of recti muscles
 - Duodenal atresia
 - Bowel obstruction
 - Esophageal atresia/ tracheoesophageal fistula
 - Imperforate anus
 - Omphalocele/gastroschisis
 - Umbilical hernia
 - Meconium ileus

Integumentary

- Basic Physiology and Anatomy
- Characteristics of normal neonatal skin
- Physiologic bases for general skin care
- Physical Assessment

- Variations
 - Erythema toxicum
 - Milia
 - Mongolian spots (hyperpigmented skin)
 - Hemangiomas/birth marks
 - Petechiae
 - Cafe au lait spots
 - Other skin lesions, e.g. pustules, vesicles
 - Umbilical cord
 - Fat necrosis

Musculoskeletal

- Physical Examination
- Complications
 - Congenital hip dislocation
 - Metatarsus adductus
 - Polydactyly and syndactyly
 - Torticollis
 - Talipes equinovarus
 - Fracture

Head, Ears, Eyes, Nose and Neck

- Physical Assessment
 - Fontanelles and cranial sutures
 - Neck appearance
 - Ear appearance, shape and placement
 - Hearing
 - Nasal patency
 - Symmetry of the mouth
 - Evaluation of pigmentation and movement
 - Evaluation of cornea
- Complications/Variations
 - Skull/neck variations & abnormalities
 - Molding
 - Cephalhematoma
 - Caput succedaneum
 - Craniosynostosis
 - Craniotabes
 - Cystic hygroma
 - Pierre Robin
- Variations & abnormalities
 - Conjunctivitis
 - Cataracts
 - Cleft lip and palate
 - Epstein's pearls
 - Natal teeth
 - Choanal atresia

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

Hematopoietic

- Basic physiology
- Complications
 - Anemia (Physiologic and non-physiologic)
 - Bleeding disorders
 - ABO incompatibility
 - Polycythemia/hyperviscosity

Neurological

- Basic physiology
- Motor function
- Physical Assessment
 - Reflexes
 - Moro
 - Rooting and sucking
 - Palmar grasp
 - Plantar grasp
 - Stepping
 - Babinski
 - Tonic neck
 - Anal wink reflex
- Techniques
 - Pull to sit
 - Truncal tone assessment
- Complications/Variations
 - Seizures
 - Jitteriness
 - Intracranial hemorrhage
 - Brachial plexus injuries
 - Neural tube defects
 - Cooling for asphyxia

Immune System

- Basic physiology
- Antibody function
 - IgA
 - IgG
 - IgM
- Infection Control
 - Handwashing
 - Visitation
 - Standards precautions

• Complications/Variations

- Neonatal sepsis
- Septic shock
- Viral infections
 - Cytomegalovirus
 - Rubella
 - Hepatitis B
 - Varicella
- Toxoplasmosis
- Bacterial infections
 - Group B streptococcus
 - Staphylococcus
 - E. coli
- Sexually Transmitted infections
 - AIDS/HIV
 - Gonorrhea
 - Chlamydia
 - Syphilis
 - Herpes
 - Human papilloma virus

Endocrine/Metabolic

- Basic physiology
- Newborn screening
- Complications
 - Hypoglycemia
 - Infant of a diabetic mother

Genitourinary

- Basic physiology
- Physical Assessment
- Complications
 - Hypospadias
 - Undescended testes
 - Testicular abnormalities
 - Hydrocele
 - Inguinal hernia
 - Vaginal discharge/abnormalities
 - Renal abnormalities
 - Circumcision
 - Postoperative care

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

Genetic Disorders

- Patterns of Inheritance
- Complications
 - Common chromosomal abnormalities (trisomy 21, 18 & 13)
 - Birth defects/congenital anomalies

Hyperbilirubinemia

- Basic physiology
- Complications
 - Jaundice
 - Physiologic jaundice
 - Pathologic jaundice
 - Breast feeding and jaundice
 - Kernicterus
 - Phototherapy
 - G6PD

Perinatal Substance Abuse

- Complications of Substance Exposure in Utero
 - Alcohol
 - Heroin
 - Methadone
 - Cocaine
 - Nicotine
 - Prescription drug abuse

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

GENERAL MANAGEMENT

I. Resuscitation and Stabilization

- General assessment of status and need for resuscitation
- Management of resuscitation
 - Airway
 - Breathing
 - Circulation
- Drug Therapy
- Evaluation of effectiveness of interventions
- Apgar scores
- CHD Screening

II. Neonatal Nutrition, Feeding and Lactation

- Growth patterns (Growth curves)
- Fluid/Calorie requirements
- Lactation
 - Anatomy and physiology of lactation
 - Composition of breast milk
 - Maternal nutritional needs
 - Normal breastfeeding process
 - Positioning
 - Latch On
 - Suck/swallow/sequence
 - Timing (frequency and duration)
 - Feeding cues
 - Contraindications to breastfeeding
- Maternal Complications
 - Latch on problems
 - Nipple problems
 - Breast engorgement
 - Insufficient milk supply
 - Therapeutic medications
 - Infection/Mastitis
 - Maternal illness
 - Perinatal substance abuse (TCN)
 - Maternal/newborn separation
- Newborn complications
 - Drug screening
 - Hypoglycemia
 - Multiple births
 - Prematurity

• Patient Education

- Breast/nipple care
- Use of supplementary/ complementary feedings
- Use of breastfeeding devices
- Expressing and storing breast milk
- Colostrum

• Complications/Contraindications

- Mastitis/yeast infection
- Nipple soreness
- Breast engorgement
- Medication effects
- Breast reduction/ augmentation
- Insufficient milk supply
- Donor milk

• Formula feeding

- Composition of formula
- Techniques
- Special needs (e.g. cleft palate, PKU)

III. Pharmacology

- Principles of administration
 - Dosage
 - Route
- Common drugs used in neonates
 - Vitamin K
 - Antibiotics
 - Eye prophylaxis
 - HBIG/hepatitis B vaccine
 - Phenobarbital
 - Zidovudine
 - Vaccines
 - GI motility drugs

Pain Assessment and Management

- Signs and symptoms
- Nonpharmacological interventions
- Pharmacological interventions

EXAMINATION CONTENT

TEST CONTENT OUTLINE & ASSOCIATED COMPETENCIES

FAMILY INTEGRATION

I. Role Adaptation

- Parent-infant interaction - normal characteristics
- Family response to stress and crisis
- Grieving process
- Adoption

II. Discharge Planning/Home Care (Hospital, Ambulatory Settings, Home)

• Follow up Care

- Apnea monitoring
- Oxygen therapy

• Screening

- CND
- Car Seat Challenge

• Parent education

- Hygiene
- Cord care
- Circumcision
- Bathing
- Genital care
- Feeding/elimination
- Immunizations
- Assessment of problems
- Fever
- Diarrhea
- Dehydration
- Jaundice
- Safety Issues
- Plagiocephaly

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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- Mattison, Donald, R., Clinical Pharmacology During Pregnancy, Academic Press, 2013.
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