



## 2018 CANDIDATE GUIDE

### NEONATAL NURSE PRACTITIONER

*Congratulations on taking the next step in your career*

*– earning your NNP-BC certification!*

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**IT IS IMPORTANT TO READ THE INFORMATION IN THIS GUIDE. IT WILL ANSWER YOUR QUESTIONS AND WILL EXPLAIN ALL POLICIES TO WHICH YOU WILL BE SUBJECT.**

***NCC core and subspecialty programs are accredited by the National Commission for Certifying Agencies***

#### ABOUT THIS GUIDE

This guide lists fees, general policies and provides information that will help you prepare for the examination including sample questions to familiarize you with question format, competency statements and examination content in outline form. Study resources are also suggested for your review. It is recommended that you familiarize yourself with the information in this guide.

NCC examinations are offered in several different test administration options. The NCC publication ***Guide to Testing Methods*** will explain the different rules and policies based on how you are taking the examination. Please download this publication from the NCC website and review the exam administration options. It should answer your questions about the NCC examination process.

If you have other questions, please feel free to contact NCC through the NCC website at [NCCwebsite.org](http://NCCwebsite.org).

#### NCC'S PHILOSOPHY OF TESTING

Certification is an evaluative process that provides the opportunity for nurses in the obstetric, gynecologic and/or neonatal specialty to demonstrate publicly what they know and to be recognized for the special knowledge they possess. The NCC certification carries no licensing authority. The ability to practice as a nurse is regulated by the state boards of nursing, and while certification may be required in some states for advanced practice roles, NCC has no regulatory power to require states to recognize NCC certification for this purpose. Practice and educational standards are reflected in the certification process, but the responsibility for development of such standards rests with the professional nursing specialty organizations and the nursing educational community. NCC encourages individual nurses to seek out information about how certification relates to state licensure requirements, program accreditation of the educational institutions attended, the educational and practice standards of national nursing specialty organizations, and employment expectations in the community.

# FEES & GENERAL POLICIES

## EXAMINATION AND RELATED FEES

### EXAMINATION FEES\*

Computer Exam Fees are \$325 which includes the non-refundable \$50 application fee.

Institutional Certification Program (ICP) Exam Fees are pre-paid by your institution.

*\*Examination fees are subject to change.*

### CHANGE REQUEST

Candidates who cannot take their currently scheduled examination, have missed their testing date or need to take a different exam - can request a change for a fee of \$125. Details are on the NCC website.

### WITHDRAWAL FEE

A computer testing candidate who withdraws from testing will receive \$160 of their \$325 payment. ICP candidates cannot withdraw.

### RETEST FEE

Retest candidates must pay full application and examination fees. There are no discounts and they must wait at least 90 days before resubmitting an application for testing.

### SUBSTITUTION FEE

Candidate substitutions are not allowed for ineligible, withdrawal, or candidates who filed a change request.

### THIRD PARTY PAYMENTS

Applicant fees paid by third parties will be reimbursed to the third party in the event the applicant is determined ineligible or withdraws within the specified time. Reimbursement will be in accordance with stated refund policies.

### NO REFUNDS WILL BE CONSIDERED

- after the candidate has taken an examination
- for any candidate that is not successful in achieving certification
- for candidates who failed to take the exam via computer within their 90 day testing window and did not submit a change request within stated time frames

Computer exam candidates can change their scheduled testing date to another date within their window *once for free*.

Candidates must handle this directly with PSI/AMP.

Refer to the NCC testing guide for details.

# FEES & GENERAL POLICIES

## PAYMENT INFORMATION

- All applications are subject to a nonrefundable application fee.
- All fees are nonrefundable except where otherwise noted.
- Payments can be made by credit card (Visa, American Express and MasterCard only).
- Payments can be made by check: bank routing number and account number required.
- For payments made by third parties, any refund reimbursement will be issued to the third party and not to the applicant.
- All payments must be in US funds.
- NCC does not accept debit cards or split payments (part check and part credit card).
- Exam fees can be submitted only online at the NCC website. Applications will not be accepted by mail, phone or fax.
- NCC will accept group payments for certification exams from institutions. Details are on the NCC website.

## OTHER PAYMENT RELATED FEES

### INCOMPLETE APPLICATION FEE

Incomplete applications are those missing any requested information or documentation, contain wrong or no fees, or for any other reason results in an inability to determine applicant eligibility status. Such applications, are subject to a **\$30 re-processing fee** and all documents and fees must be reconciled in full no later than 21 days prior to the exam.

### INELIGIBLE FEE

Any applicant determined ineligible (for any reason) will be assessed the **\$50 nonrefundable application fee**. The examination fee will be refunded.

### RETURNED CHECK FEE

A **\$30 fee** will be assessed to any applicant whose check or e-check is returned to NCC for any reason. Remittance thereafter of all fees and applications must be in the form requested by NCC. Contact NCC for requirements.

### CREDIT CARD CHARGEBACK

A **\$30 fee** will be assessed if an applicant's credit card company issues a notice of retrieval or a chargeback in response to the cardholder's dispute of the credit card charge. Remittance thereafter of all fees and applications must be in the form requested by NCC. Contact NCC for requirements.

### THIRD PARTY PAYMENTS

Applicant fees paid by third parties will be reimbursed to the third party in the event the applicant is determined ineligible or withdraws within the specified time. Reimbursement will be in accordance with stated refund policies.

***Certification will be revoked or withheld if a returned check or a chargeback request on a credit card payment results in loss of income to NCC and the monies are not recovered in an alternate payment. Fees received at any time will first be applied to any unpaid prior certification/special fees.***

# FEES & GENERAL POLICIES

## VERIFICATION OF CERTIFICATION

Third party notification of status will not be released without authorization from the NNP-BC. A \$30 fee is required for any third party notification or issuance of duplicates of test results reports. Verification requests can only be submitted after official written results have been received in the mail.

Verification requests can only be made via the online verification system on the NCC website. NCC no longer issues verifications via the mail or fax.

## GENERAL POLICIES

### UNSUCCESSFUL CANDIDATES

A candidate who sits for the examination and does not receive a passing score is not eligible for any refund nor for any credit on any later NCC exam.

### EXAM CATEGORY CHANGES

Requests to change examination category must be made prior to making an appointment to take the test. You can only request an exam category change by completing a **Change Request Form** on the NCC website and submitting with non-refundable payment of \$125. **Candidates are only allowed one change option** (e.g. if you reschedule your exam date, you will not be able to change your exam category). All change requests must be approved by NCC. **There will be no refund of original or Change Request Form fees.** Eligibility must be re-established for the new exam category, and additional documentation and fees may be required. The time to consider eligibility for the new category will count toward the original 90 day window assigned to take the examination. Examinees must take the exam for which they have been determined eligible. No changes will be permitted on examination day. If a candidate knowingly or unknowingly takes an examination other than the one she/he was found eligible to take, the examination will not be scored. No refunds will be allowed, and all fee policies will apply if the candidate reapplies for an examination.

### RETEST POLICY

You may retake the examination if you do not pass. You must reapply, submit all applicable fees and documentation, and re-establish eligibility according to the appropriate deadlines. There is no limit to the number of times you may retake the examination however candidates must wait at least **90 days before making application to retake the examination** by computer or paper and pencil. All submission deadlines for application for paper and pencil testing must be met. No accommodation will be given to those who are retesting via paper and pencil mode if they cannot meet application deadline because of the 90 day wait rule. The **maximum number of times a candidate can take the same NCC test in a calendar year is two.**

### AMERICANS WITH DISABILITIES ACT

Special testing accommodations will be provided pursuant to the Americans with Disabilities Act. Contact the NCC office for further information before submitting your application.

# FEES & GENERAL POLICIES

## REVIEW COURSES AND MATERIALS

NCC does not offer or sponsor review courses or review materials for its certification examinations. Examination candidates should review any purported course of study as being independent of NCC. You should carefully examine the merits of any individual exam preparation offering before you participate.

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**POLICIES ARE SUBJECT  
TO CHANGE  
WITHOUT NOTICE.**

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## GENERAL POLICIES (CONTINUED)

### TEST DISCLOSURE

NCC does not make test questions available for review. Because test questions may be used for more than one examination administration, distributing this information would compromise the security of the test questions and would increase the cost of certification if the questions had to be replaced each year.

### APPEALS PROCEDURE

Any request to waive any policy of the NCC Board of Directors relative to eligibility, administration, examination content issues, or certification maintenance must be received in writing within 60 days of the dispute. All requests should be sent to the attention of the NCC President at [nccpresident@nccnet.org](mailto:nccpresident@nccnet.org). The correspondence should contain a detailed account as to why the NCC policy should be waived or the candidate's status should be changed. Such requests are referred to the NCC Policy Review Committee of the Board of Directors. All decisions will be provided in writing. Cases not resolved by the Policy Review Committee will be referred to the full Board of Directors.

### NONDISCRIMINATION

It is the policy of NCC that no individual will be excluded from the examinations as a result of age, sex, race, religion, national origin, ethnicity, disability, marital status, sexual orientation, military status or gender identity.

### REVOCACTION

Your certification may be revoked for falsifying any information submitted relative to eligibility to take the certification examination or for maintaining certification, for losing your license to practice nursing, or for failing to pay designated certification or maintenance fees.

### ANSWER SHEET REVIEW OF PAPER AND PENCIL EXAMINATIONS

All answer sheets are scored electronically. If you believe there might be a discrepancy in your results, you may request a review of your answer sheet for a fee of \$40. This request must be submitted online at the NCC website within 60 days of the exam date. The online request form is under "Other helpful information" in the Certification Exam section of the "Get Certified" tab. You will be notified of the results by mail.

### RETENTION OF ANSWER SHEETS AND EXAMINATION BOOKLETS

All answer sheets are kept for one year from the date of the examination. Examination booklets used by the candidates are kept for six months from the date of the examination. Computer answer strings are kept for at least one year from the date of the examination.

# ABOUT THE EXAM

## ABOUT THE EXAM

### TIMED EXAMINATION

Three (3) hours are allotted to complete the examination.

### EXAM FORMAT

The Neonatal Nurse Practitioner examination consists of up to 175 test questions. 150 are counted for scoring and the remainder are embedded in the exam as pretest items. The pretest items do not count toward the examinee's final results.

- There is one question format used for all NCC examinations.
- Each question has a premise (stem) and three alternative answers.
- The answer options are alphabetized by the first word in each answer option to randomize the answers.
- Computer tests are delivered in a different random order for each candidate.
- Questions will test both basic knowledge and application of knowledge.
- Questions that contain laboratory data will show results in conventional units of measure with international units in parentheses.
- Drugs are listed in both generic and trade names where appropriate.

## EXAMINATION CONTENT DEVELOPMENT

The development of NCC certification involves many individuals and involves a meticulous process of review. There are three major groups that contribute to the test development process:

### ITEM WRITERS:

NPs and others identified with special expertise have the responsibility of drafting test items per designated assignment for review by the content team and expert reviewers. Item writers are solicited from the NNP-BC population and through recommendations.

### REVIEWERS:

Reviewers are NPs or other designated experts who assist the content teams in review of test items developed by the item writers. Reviewers are responsible for reviewing items for content relevance and confirming that references cited for the questions support the items as written.

### CONTENT TEAMS:

Content team members are experienced practitioners and are appointed on an annual basis by the NCC President. Content teams are solicited from the NNP-BC (Neonatal Nurse Practitioner-Board Certified) population, NCC item writer workshop participants and from experts in the field. To see the current membership composition of the Content Team responsible for the Neonatal Nurse Practitioner examination, please visit the NCC website under the section on NCC Leadership.

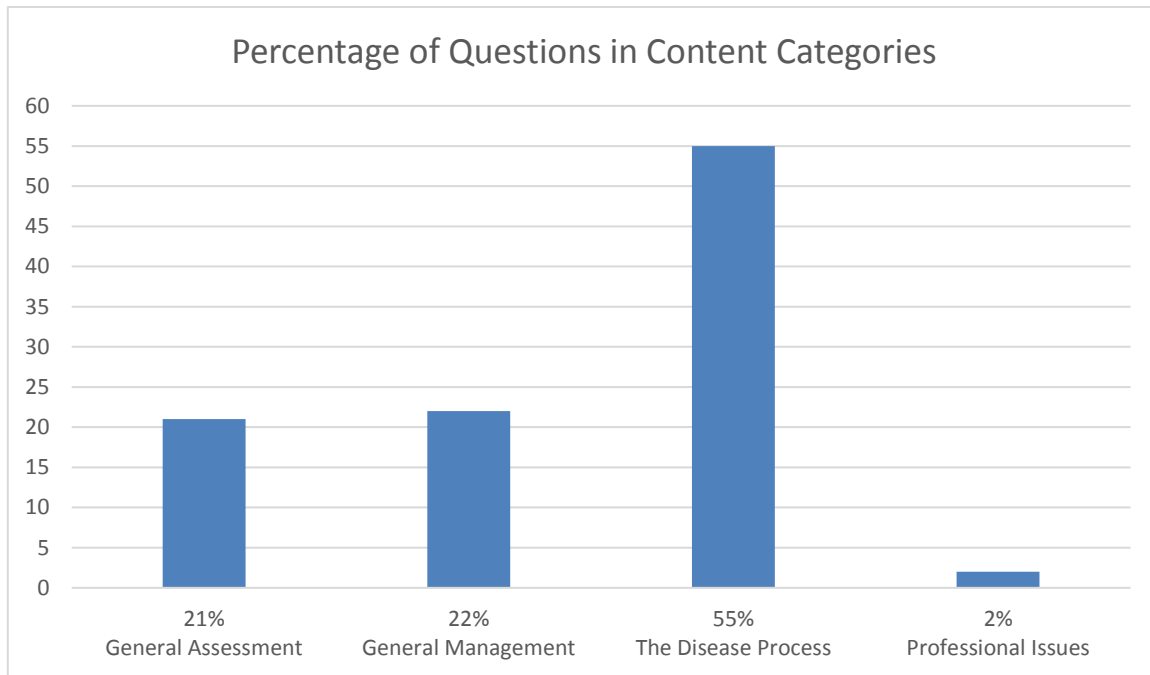
Content team members are NPs or other identified experts who:

- develop and update the test outline and competency statements
- review test items developed by item writers
- set the pass/fail standard
- review item statistics from exam administrations and pretest examinations
- approve the exam forms to be administered
- review item banks
- undertake content validation studies

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%)

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- 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%)

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- 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%)

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- (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%)

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- 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 perinatal history and a systematic assessment of all body systems
- 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
- 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
- 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
- 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

- Blackburn, Maternal, Fetal, & Neonatal Physiology, Elsevier, 2013
- Creasy, et al., Maternal Fetal Medicine Principles and Practice, Elsevier- Saunders, St. Louis, 2014.
- Fanaroff, et al., Klaus & Fanaroff's Care of the High-Risk Neonate, Elsevier-Saunders, 2015
- Gardner, et al., Handbook of Neonatal Intensive Care, Elsevier St. Louis, 2016.
- Gleason, et al., Avery's Diseases of the Newborn, Elsevier Sanders, 2012.
- Goldsmith, et al., Assisted Ventilation of the Neonate 6<sup>th</sup> ed, Elsevier Saunders, 2017.
- Guido, Legal and Ethical Issues in Nursing, Pearson, 2013.
- Katzung, et al., Basic & Clinical Pharmacology, McGraw Hill, New York, 2014.
- MacDonald, et al., Atlas of Procedures in Neonatology, LWW, Philadelphia, 2013.
- Martin, et al., Neonatal-Perinatal Medicine: Diseases of the Fetus and Infant, Elsevier Mosby, 2015.
- Mattison, Donald, R., Clinical Pharmacology During Pregnancy, Academic Press, 2013.
- Mattson, et al., Core Curriculum for Maternal Newborn Nursing, Saunders Elsevier, St. Louis, 2016.
- Polit, et al., Essentials of Nursing Research: Appraising Evidence for Nursing Practice, LWW, 2013.
- Simpson, et al., Perinatal Nursing, LWW, Philadelphia, 2014.
- Snell, et al., Care of the Well Newborn, Jones & Barlett, Burlington, MA, 2017
- Stark, et al., Cloherty and Stark's Manual of Neonatal Care 8<sup>th</sup> ed., Lippincott, Williams & Wilkins, Philadelphia, 2017.
- Tappero, et. al., Physical Assessment of the Newborn, NICU, Ink, California, 2015.
- Verklan, et al. Core Curriculum for Neonatal Intensive Care Nursing, Saunders, Elsevier, St. Louis, 2015.
- Yaffe, et al., Neonatal and Pediatric Pharmacology: Therapeutic Principles in Practice, LWW, 2011.

# SAMPLE QUESTIONS

## NEONATAL NURSE PRACTITIONER SAMPLE QUESTIONS

Listed below are five sample questions to acquaint you with the test question format. These questions do not reflect the scope or the difficulty level of the questions on the actual examination. The reference from which each question is derived is also cited. However, other references might substantiate a different answer, and the answer shown here might be substantiated by other references.

The rigorous review to which actual test questions are subject is not applied to these sample questions. The focus that should be attended to in reviewing these items is format, not content.

1. The goal of treatment of gastroesophageal reflux in the premature neonate is to

- A. achieve normal gastric emptying
- B. decrease lower esophageal sphincter pressure
- C. increase gastric pH

Answer: A

Martin, et al., Neonatal Perinatal Medicine Diseases of the Fetus and Infant, Elsevier Mosby, St. Louis, 2015, 1407-1408

2. When auscultating the lungs of a neonate, the nurse practitioner hears stridor. This most likely indicates

- A. bronchospasm
- B. inflammation of the pleura
- C. subglottic stenosis

Answer: C

Tappero, et al., Physical Assessment of the Newborn, NICU, Ink,, CA, 2015, p. 83

3. Upper and lower extremity blood pressures should be taken for the neonate with decreased femoral pulses to evaluate for

- A. coarctation of the aorta
- B. patent ductus arteriosus
- C. transposition of the great arteries

Answer: A

Verklan, et a l., Core Curriculum for Neonatal Intensive Care, Elsevier, Saunders, 2015, p. 553-554

4. The recommended hepatitis B immunization schedule for a neonate born to a hepatitis B surface antigen (HBsAg) positive mother is

	Initial Immunization	Second Immunization	Third Immunization
A.	At birth	1 month	6 months
B.	Before discharge	2 months	6 months
C.	0-7 days	1 month	12 months

Answer: A

Verklan, et a l., Core Curriculum for Neonatal Intensive Care, Elsevier, Saunders, 2015, p. 65

5. A neonate with bronchopulmonary dysplasia has the following blood gas values:

pH	38
PCO <sub>2</sub>	50 mmHg
HCO <sub>3</sub>	29 mEq/L (mmol)
Base excess	+3 mEq/L

The best interpretation of the blood gas is

- A. compensated metabolic acidosis
- B. compensated respiratory acidosis
- C. normal value

Answer: B

Gardner, et al., Handbook of Neonatal Intensive Care, Elsevier, Mosby, St. Louis, 2016, p. 155-156

# SCORING & SCORE REPORT

## HOW EXAMS ARE SCORED

NCC examinations are criterion-referenced. This means the passing score is based on a predetermined criterion. This criterion is a statistical ability level established by the Content Team based on evaluation of criticality of content and the test questions' past statistical performance. Questions used to determine pass/fail have proven statistical history that demonstrates the question is appropriate for use to measure an individual's ability level.

There is no set percentage passing level. **An ability level for each candidate is calculated based on the number of questions they answer correctly (there is no penalty for wrong answers).** Pass/fail is determined based on this ability level as compared to pass/fail standard which is a predetermined ability criterion. When different forms of the examination are used, a process called equating is initiated. This procedure converts all results to a common scale. So someone who takes a slightly more difficult form of the exam will need to answer fewer questions correctly than someone who takes a slightly easier form of the exam.

NCC utilizes the item response theory of psychometrics for the analysis of its examinations. Item response theory (Rasch analysis) is the study of test and item scores based on assumptions concerning the mathematical relationship between abilities and item responses. This is a commonly used system, and such examinations as the NCLEX and other health related certification examinations utilize this type of psychometric analysis.

Test results reports will identify a pass/fail status and will give feedback on the various content areas of the examination in the form of word descriptors: very weak, weak, average, strong and very strong. No percentage or standard score will be given.

# SCORING & SCORE REPORTS

## SAMPLE SCORE REPORT

Whether you take the computer or paper and pencil version of the examination, you will receive an official test results report from NCC. Shown below is a sample test result report for a candidate who has passed the examination.

### NEONATAL NURSE PRACTITIONER EXAMINATION

#### Test Results

NAME DATE

ADDRESS

Pass/Fail: PASS

#### Exam Content Report

The following provides information regarding your performance on the different content areas tested on the examination.

This report is provided for informational purposes only to assist in identifying your areas of strength and weakness. There is no requirement that a certain number of questions in each content category must be answered correctly to pass the examination. Passing the examination is based on the total number of questions answered correctly on the entire examination.

#### Content Area & Percentage

#### Your Results:

#### Range of Questions Asked:

General Assessment and  
Professional Issues  
(15-25%)

WEAK

The Disease Process  
(45-55%)

VERY STRONG

General Management  
(20-30%)

AVERAGE

# TERMS OF CERTIFICATION AND CERTIFICATION MAINTENANCE

## WHEN YOU PASS THE EXAM

### CREDENTIAL

Your NCC certification status entitles you to use the credential NNP-BC (Neonatal Nurse Practitioner-Board Certified)

### TERMS OF CERTIFICATION

NCC certification is awarded for a period of three years.

The effective date for certification is the date on the official NCC letter that tells you that you have successfully completed the certification process.

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**NO CONTINUING  
EDUCATION IS ISSUED FOR  
TAKING THE  
NEONATAL NURSE  
PRACTITIONER EXAM.**

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## MAINTAINING YOUR CERTIFICATION

- NCC certification must be maintained on an ongoing basis every three years.
- Certification that is not maintained will expire
- The NCC certification maintenance program allows you to continue your certification status by obtaining specific hours of continuing education credit as defined in your Education Plan, which is generated by your Continuing Competency Assessment (CCA).
- For continuing education credit to be used for certification maintenance it must be earned **AFTER you have taken your Assessment and in the areas defined by your Education Plan** before your maintenance is due.
- The maintenance process includes filing a maintenance application prior to your maintenance due date with appropriate fees and requested documentation. Using NCC CE modules does NOT automatically maintain your certification. You must file a maintenance application and pay a maintenance fee in addition to any CE fees.
- Maintenance applications are subject to random audit. If you are chosen for audit, you will be required to upload CE certificates and course descriptions. These records should be maintained during each maintenance cycle, until your maintenance application has been approved.

You may apply for maintenance up to 1 year prior of your maintenance date. As long as you have obtained the required contact hours of continuing education credit—**you do not need to wait until your maintenance deadline to apply**. Maintenance will be due in the quarter in which you were notified of your certification (*not the date on which you took the examination*). Please refer to the following for guidance:

Date of Notification of Certification	Certification Maintenance Due Dates
January-March 2018	March 15, 2021
April-June 2018	June 15, 2021
July-September 2018	September 15, 2021
October-December 2018	December 15, 2021

### The NCC website has more detailed information

For more information about the certification maintenance program, click the purple "Maintain your Certification" box.

For more information on your Education Plan and the Continuing Competency Assessment (CCA), click on the green "Continuing Competency Specialty Assessment" box.

# TERMS OF CERTIFICATION AND CERTIFICATION MAINTENANCE

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**VISIT THE NCC WEBSITE  
AND DOWNLOAD YOUR  
CONTINUING COMPETENCY  
ASSESSMENT BROCHURE  
FOR COMPLETE DETAILS!**

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## **CONTINUING COMPETENCY ASSESSMENT (CCA)**

NCC views certification as a process that functions throughout an individual nurse or nurse practitioner's career. It reflects life-long learning, ongoing professional development and is supported by maintaining specialty knowledge competencies.

The standard process for the NCC Certification Maintenance Program makes use of an assessment tool and resulting personal education plan:

- Complete the continuing competency assessment (CCA) that reflects the current knowledge competencies aligned with your certification specialty at the beginning of each new certification maintenance cycle.
- Earn CE as specified by the education plan developed from your assessment. Your education plan outlines the CE needed to maintain your NCC certification. ***Only CE earned after you have taken your assessment can be used to maintain your certification. It must address the CE needs as outlined by your educational plan.***

This program provides continuing validation that NCC certified nurses and nurse practitioners are maintaining their specialty knowledge competencies based on current practice and examination content.

Download Continuing Competency Assessment brochures for details by clicking the links below.

Four Steps to Continuing Competency

<http://www.nccwebsite.org/resources/docs/cca-steps.pdf>

Continuing Competency Assessment - Education Plan Examples

<http://www.nccwebsite.org/resources/docs/cca-education-plans.pdf>