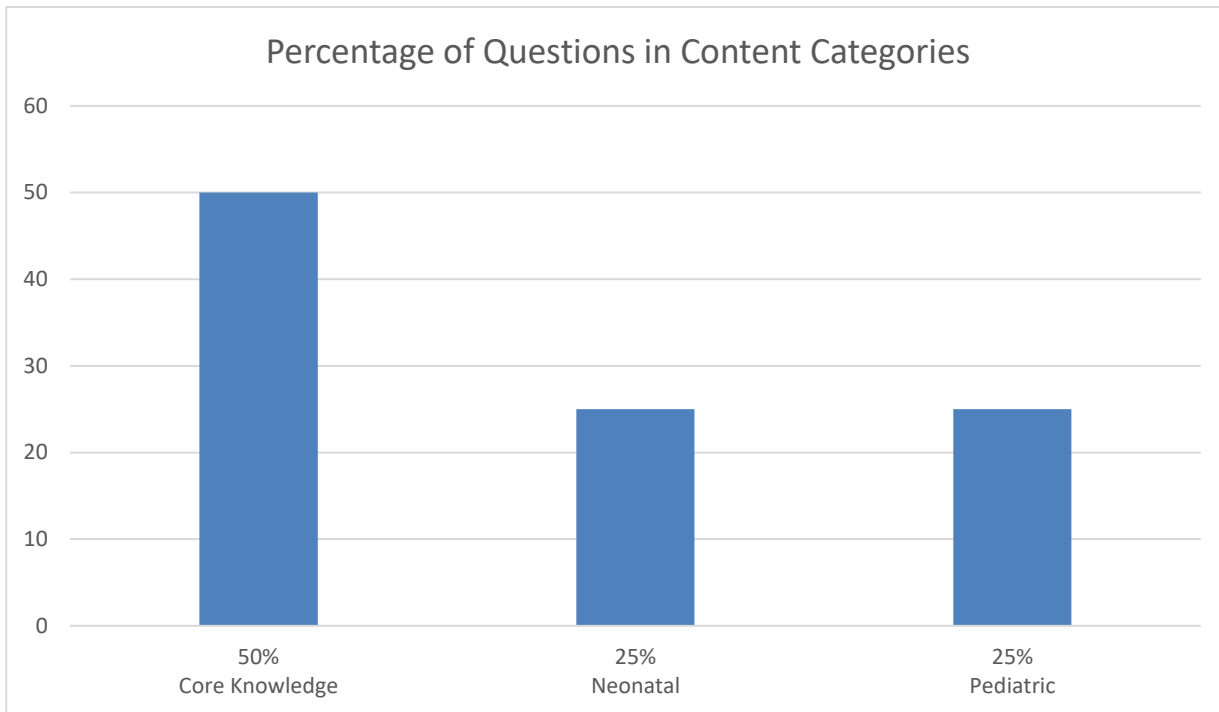


EXAMINATION CONTENT
FOR TESTS TAKEN **BEFORE** APRIL 1, 2020



Neonatal Pediatric Transport exam



The chart shows the percentage distribution of questions on the Neonatal Pediatric Transport exam across the major content categories covered on the examination.

EXAMINATION CONTENT

FOR TESTS TAKEN **BEFORE** APRIL 1, 2020

EXAM OUTLINE

Areas of knowledge to be tested on the Neonatal Pediatric Transport examination are listed in the following outline. This list is not intended as an all-inclusive review. It is provided only to help candidates evaluate their own practice.

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

- | | |
|-------|--|
| 10.00 | Core Knowledge (<i>content is applicable to both neonatal & pediatric transport situation and/or population</i>) (50%) |
| | Professional Issues |
| | Transport Environment |
| | Transport-related Clinical Management and Skills |
| 11.00 | Neonatal (<i>content reflects disorders/situations more commonly associated with the neonatal period including pharmacologic management</i>) (25%) |
| | Pulmonary |
| | Cardiovascular |
| | Gastrointestinal |
| | Metabolic |
| | CNS/Neurological |
| | Surgical Emergencies |
| | Special Situations -- Care of the Extremely Low Birthweight (ELBW) patient in transport |
| 12.00 | Pediatric (<i>content reflects disorders/situations more commonly associated with the pediatric period including pharmacologic management</i>) (25%) |
| | Pulmonary |
| | Cardiovascular |
| | Gastrointestinal |
| | Hematologic |
| | Metabolic/Endocrine |
| | CNS/Neurological |
| | Special Situations |
| | Trauma |
| | Multi-system |

EXAMINATION CONTENT FOR TESTS TAKEN **BEFORE** APRIL 1, 2020

ASSOCIATED COMPETENCIES

- Obtain and interpret a pertinent history
- Systematically assess all body systems utilizing physical examination, developmental assessment and neurobehavioral assessment
- Utilize biophysical monitoring techniques to identify body system alterations.
- Identify life-threatening states and initiate appropriate interventions for the neonatal and pediatric patient.
- Recognize normal lab values and deviations in clinical laboratory and diagnostic data and identify potential significance.
- Formulate and implement a plan of care in collaboration with physicians and other health care professionals.
- Evaluate benefits and risks of diagnostic and therapeutic interventions
- Understand the impact of transport physiology on both the neonatal/pediatric patient population and the accompanying transport team members.
- Evaluate and document responses to interventions
- Apply safety principles of transport as applicable to both the neonatal/pediatric patient population and the accompanying transport team members.
- Integrate legal and ethical principles into neonatal and pediatric transport.
- Recognize the psychosocial aspects of pediatric/neonatal transport and potential impact on the family.

STUDY GUIDE

FOR TESTS TAKEN **BEFORE** APRIL 1, 2020

CORE KNOWLEDGE

(content is applicable to both neonatal & pediatric transport situation and/or population)

I. Professional Issues

- Scope of practice of all team members
- Federal regulations regarding transport
EMATALA
FAA
- Informed consent
- Documentation

II Transport Environment

- Environmental Influences
Barometric pressure effects
Gravitational forces
Noise
Thermal & humidity effects
Vibration
- Safety
Scene safety
Evacuation protocols
Survival training
Disaster planning
- Crew Stressors
Environmental
Physical
Psychological
- Communication
Peer to peer
Patient (age appropriate)
Parents & family members

III. Transport-Related Clinical Management and Skills

- Cardiopulmonary Arrest
(NRP & PALS)
Airway
Breathing
Circulation
- Thermal Management
Hypothermia
Hyperthermia
- Special Skills
Intubation
Laryngeal mask airway
Needle cricothyroidotomy
Intravenous /intraosseous Access
Insert UVC/UAC
Needle aspiration/chest tube insertion
Pericardiocentesis
Troubleshooting
- Physical assessment
Anatomic abnormalities
- Developmental/behavioral status
- Fluid & electrolyte therapy
Dehydration
Fluid overload
Electrolyte abnormalities
- Infection control issues
- Principles of mechanical ventilation support during transport
- Pharmacology
Pain management
Sedation
- Physiologic impacts
Fluid dynamics
Gas changes
Laws of science
Boyle
Charles
Dalton
Oxygen consumption
Spatial changes
Third spacing

STUDY GUIDE

FOR TESTS TAKEN **BEFORE** APRIL 1, 2020

NEONATAL

(content reflects disorders/ situations more commonly associated with the neonatal period including pharmacologic management)

I. Pulmonary

- Upper Airway
 - Congenital anomalies
 - Choanal atresia
 - Pierre Robin syndrome
- Lower Airway
 - Chronic lung disease
 - Parenchymal
 - Aspiration
 - Pneumonia/pneumonitis
- Respiratory distress syndrome
 - Air leak syndrome
 - Respiratory Failure

II. Cardiovascular

- Congenital heart conditions
 - Cyanotic
 - Ductal dependent lesions
 - Left-to-right shunting
 - Persistent pulmonary hypertension of newborn (PPHN)
 - Shock States
 - Anaphylactic
 - Cardiogenic
 - Distributive (septic)
 - Hypovolemic
- Congestive heart failure
 - Pericarditis
 - Dysrhythmias
 - Bradycardia
 - Tachycardia
 - Supraventricular tachycardia (SVT)

III. Gastrointestinal

- Necrotizing enterocolitis

IV. Metabolic

- Hypoglycemia
- Altered electrolyte balance

V. CNS/Neurological

- Seizures
- Perinatal substance abuse
- Increased intracranial hemorrhage

VI. Surgical Emergencies

- Diaphragmatic hernia
- Gastroschisis
- Omphalocele
- Tracheoesophageal fistula

VI. Special Situations – Care of the ELBW neonate during transport

STUDY GUIDE

FOR TESTS TAKEN **BEFORE** APRIL 1, 2020

PEDIATRIC

(content reflects disorders/ situations more commonly associated with the pediatric period including pharmacologic management)

I. Pulmonary

- Upper Airway
 - Croup (laryngotracheobronchitis)
 - Epiglottitis
- Lower Airway
 - Asthma
 - bronchiolitis
 - Parenchymal
 - Pneumonia/pneumonitis
- Foreign Body Obstruction

II. Cardiovascular

- Congenital Heart
 - Late presentation
 - Long term complications
 - Postoperative cardiovascular procedure
 - Hypertension
- Shock States
 - Anaphylactic
 - Cardiogenic
 - Distributive (septic)
 - Hypovolemic
- Congestive heart failure
 - Pericarditis
 - Dysrhythmias
 - Bradycardia
 - Tachycardia
 - Supraventricular tachycardia (SVT)

III. Gastrointestinal

- Acute obstruction
- Hemorrhage
- Volvulus

IV. Hematologic

- Anemia
- Sickle cell crisis

V. Metabolic/Endocrine

- Diabetic ketoacidosis
- Altered electrolyte balance

VI. CNS/Neurological

- Increased intracranial pressure
- Status epilepticus
- Coma
- Meningitis
- Intracranial hemorrhage

VII. Special Situations

- Bites (Poisonous and non-poisonous)
- Ingestions/Poisoning
- Near drowning
- Hypothermia/Hyperthermia

VIII. Trauma

- Accidental
- Non-accidental
- Disaster-Related
- Hazardous materials

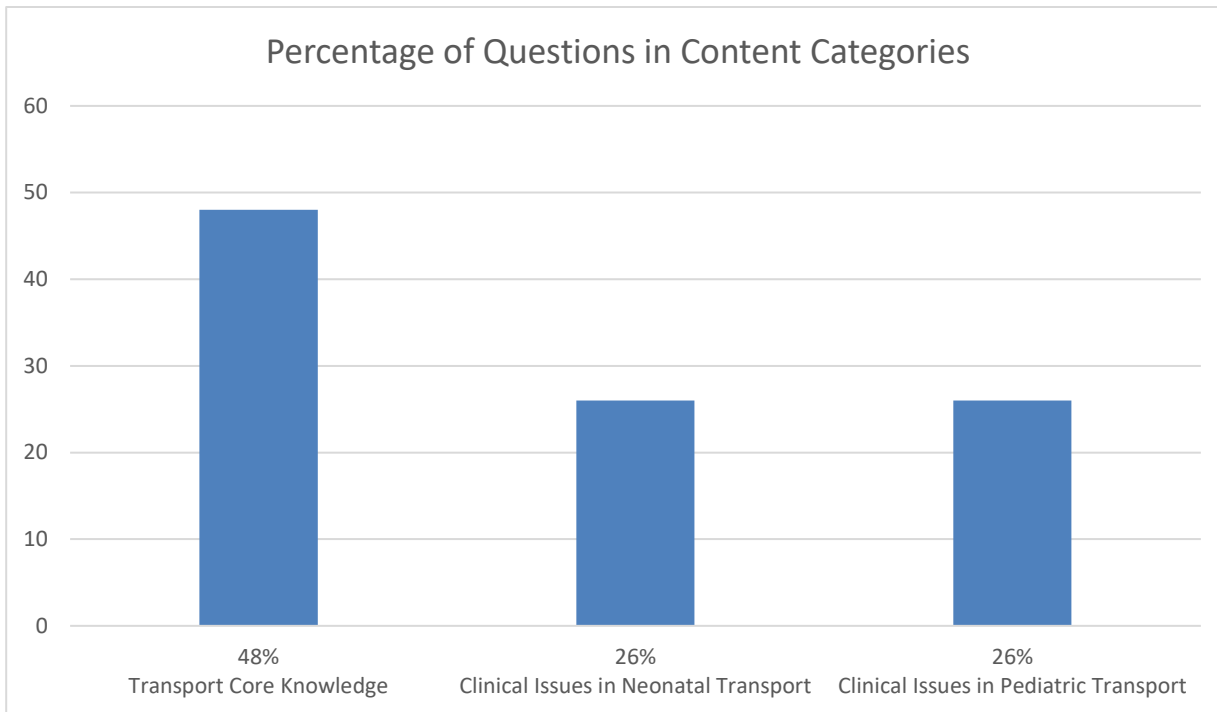
IX. Multi-System

- Burns and smoke inhalation
- Sepsis

EXAMINATION CONTENT
FOR TESTS TAKEN **ON/AFTER** APRIL 1, 2020



Neonatal Pediatric Transport exam



The chart shows the percentage distribution of questions on the Neonatal Pediatric Transport exam across the major content categories covered on the examination.

EXAMINATION CONTENT

FOR TESTS TAKEN **ON/AFTER** APRIL 1, 2020

EXAM OUTLINE

Areas of knowledge to be tested on the Neonatal Pediatric Transport examination are listed in the following outline. This list is not intended as an all-inclusive review. It is provided only to help candidates evaluate their own practice.

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

10.00 Transport Core Knowledge (48%)

- Regulation, Legal and Ethical
- Safety, Communication and Environment
- Procedures and Management of Invasive Devices
- Pharmacology
- Respiratory Physiology
- Principles of Mechanical Ventilation
- Thermoregulation
- Resuscitation and Stabilization
- Flight Physiology
- Fluid and Electrolytes
- History and Physical assessment

11.00 Clinical Issues in Neonatal Transport (26%)

- Pulmonary
- Cardiovascular
- Glucose and Electrolyte Management
- Neurological
- Surgical Emergencies
- Extremely Low Birth Weight Neonate

12.00 Clinical Issues in Pediatric Transport (26%)

- Pulmonary
- Cardiovascular
- Metabolic and Hematologic
- Neurological
- Exposure to Drugs, Poisons and Toxins
- Accidental and Non-accidental Trauma (e.g. burns and smoke inhalation, penetrating, blunt and submersion injuries)

EXAMINATION CONTENT FOR TESTS TAKEN **ON/AFTER** APRIL 1, 2020

ASSOCIATED COMPETENCIES

- Obtain and interpret a pertinent history
- Systematically assess all body systems utilizing physical examination, developmental assessment and neurobehavioral assessment
- Utilize biophysical monitoring techniques to identify body system alterations.
- Identify life-threatening states and initiate appropriate interventions for the neonatal and pediatric patient.
- Recognize normal lab values and deviations in clinical laboratory and diagnostic data and identify potential significance.
- Formulate and implement a plan of care in collaboration with physicians and other health care professionals.
- Evaluate benefits and risks of diagnostic and therapeutic interventions
- Understand the impact of transport physiology on both the neonatal/pediatric patient population and the accompanying transport team members.
- Evaluate and document responses to interventions
- Apply safety principles of transport as applicable to both the neonatal/pediatric patient population and the accompanying transport team members.
- Integrate legal and ethical principles into neonatal and pediatric transport.
- Recognize the psychosocial aspects of pediatric/neonatal transport and potential impact on the family.

STUDY GUIDE

FOR TESTS TAKEN **ON/AFTER** APRIL 1, 2020

TRANSPORT CORE KNOWLEDGE

(content is applicable to both neonatal & pediatric transport situation and/or population)

I. Regulation, Legal and Ethical

- Scope of practice of all team members
- Federal regulations regarding transport
EMATALA
FAA
- Informed consent
- Documentation

II Safety, Communication and Environment

- Environmental Influences
Barometric pressure effects
Gravitational forces
Noise
Thermal & humidity effects
Vibration
- Safety
Scene safety
Evacuation protocols
Survival training
Disaster planning
- Crew Stressors
Environmental
Physical
Psychological
- Communication
Peer to peer
Patient (age appropriate)
Parents & family members

III. Procedures and Management of Invasive Devices

- Special Skills
Intubation
Laryngeal mask airway
Needle cricothyroidotomy
Intravenous /intraosseous Access
Insert UVC/UAC
Needle aspiration/chest tube insertion
Pericardiocentesis
Troubleshooting

IV. Pharmacology

- Pain management
- Sedation
- Antibiotics
- Cardiovascular drugs

V. Respiratory Physiology

VI. Principles of Mechanical Ventilation

- Principles of mechanical ventilation support during transport

VII. Thermoregulation

- Thermal Management
Hypothermia
Hyperthermia

VIII. Resuscitation and Stabilization

- Cardiopulmonary Arrest
(NRP & PALS)
Airway
Breathing
Circulation

IX. Flight Physiology

- Physiologic impacts
Fluid dynamics
Gas changes
Laws of science
Boyle
Charles
Dalton
Oxygen consumption
Spatial changes
Third spacing

X. Fluid and Electrolytes

- Fluid & electrolyte therapy
Dehydration
Fluid overload
Electrolyte abnormalities

XI. History and Physical assessment

- Physical assessment
Anatomic abnormalities
- Developmental/behavioral status

STUDY GUIDE

FOR TESTS TAKEN **ON/AFTER** APRIL 1, 2020

CLINICAL ISSUES IN NEONATAL TRANSPORT

I. Pulmonary

- Upper Airway
 - Congenital anomalies
 - Choanal atresia
 - Pierre Robin syndrome
- Lower Airway
 - Chronic lung disease
 - Parenchymal
 - Aspiration
 - Pneumonia/pneumonitis
- Respiratory distress syndrome
 - Air leak syndrome
 - Respiratory Failure

II. Cardiovascular

- Congenital heart conditions
 - Cyanotic
 - Ductal dependent lesions
 - Left-to-right shunting
 - Persistent pulmonary hypertension of newborn (PPHN)
 - Shock States
 - Anaphylactic
 - Cardiogenic
 - Distributive (septic)
 - Hypovolemic
- Congestive heart failure
 - Pericarditis
 - Dysrhythmias
 - Bradycardia
 - Tachycardia
 - Supraventricular tachycardia (SVT)

III. Glucose and Electrolyte Management

- Hypoglycemia
- Altered electrolyte balance

IV. Neurological

- Seizures
- Perinatal substance abuse
- Increased intracranial hemorrhage

V. Surgical Emergencies

- Diaphragmatic hernia
- Gastroschisis
- Omphalocele
- Necrotizing enterocolitis
- Tracheoesophageal fistula

VI. Extremely Low Birth Weight Neonate

STUDY GUIDE

FOR TESTS TAKEN **ON/AFTER** APRIL 1, 2020

CLINICAL ISSUES IN PEDIATRIC TRANSPORT

I. Pulmonary

- Upper Airway
 - Croup (laryngotracheobronchitis)
 - Epiglottitis
- Lower Airway
 - Asthma
 - bronchiolitis
 - Parenchymal
 - Pneumonia/pneumonitis
- Foreign Body Obstruction

II. Cardiovascular

- Congenital Heart
 - Late presentation
 - Long term complications
 - Postoperative cardiovascular procedure
 - Hypertension
- Shock States
 - Anaphylactic
 - Cardiogenic
 - Distributive (septic)
 - Hypovolemic
- Congestive heart failure
 - Pericarditis
 - Dysrhythmias
 - Bradycardia
 - Tachycardia
 - Supraventricular tachycardia (SVT)

III. Metabolic and Hematologic

- Anemia
- Sickle cell crisis
- Diabetic ketoacidosis
- Altered electrolyte balance

VI. Neurological

- Increased intracranial pressure
- Status epilepticus
- Coma
- Meningitis
- Intracranial hemorrhage

V. Exposure to Drugs, Poisons and Toxins

- Bites (Poisonous and non-poisonous)
- Ingestions/Poisoning
- Disaster-Related
 - Hazardous materials

VI. Accidental and Non-accidental Trauma (e.g. burns and smoke inhalation, penetrating, blunt and submersion injuries)

- Accidental
- Non-accidental
- Near drowning
- Hypothermia/Hyperthermia
- Burns and smoke inhalation

STUDY RESOURCES

STUDY RESOURCES

The following references are used by content team members and outside item writers to generate test questions for the NPT examination. This list is not intended as an all-inclusive list of references, nor does it imply that items on the current examinations were necessarily referenced from any of these publications.

JOURNALS

- Advances in Neonatal Care
- Air Medical Journal
- Clinics in Perinatology
- Newborn and Infant Nursing Reviews
- Paediatrics and Child Health
- Pediatric Clinics of North America
- Pediatrics
- Respiratory Clinics of North America
- Seminars in Perinatology
- The Journal of Perinatal & Neonatal Nursing

BOOKS

- AHA 2015 Guidelines for CPR & ECC: Supplement Circulation, AHA, 2015
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- Fuhrman, et al., Pediatric Critical Care, Elsevier, 2017.
- Gardner, et al., Neonatal Intensive Care, Mosby, St. Louis, 2016.
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- Hay, et al., Current Diagnosis & Treatment in Pediatrics, McGraw Hill, 2018.
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