

Tiny Patients, Advanced Credentials:

**An Overview of the Neonatal & Pediatric Specialty
(NPS) Exam**

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PROFESSOR-RUTGERS SCHOOL OF HEALTH PROFESSIONS
CO-OWNER-A & T LECTURES**



Objectives

- ▶ What is the NPS specialty credential?
- ▶ Why seek the NPS or any respiratory therapy specialty credential?
- ▶ Key Differences between adults and pediatric/neonatal patients
- ▶ Key Resources-
 - ▶ NBRC
 - ▶ Kettering and Other Proprietary Exam Preparation Options
- ▶ Brief Overview of Exam Matrix
- ▶ Other Key NBRC Resources
- ▶ How to Prepare for the Exam
 - ▶ Study techniques and timeline
 - ▶ Whether to use Exam Prep courses
 - ▶ Knowing when you are ready
- ▶ Week, Day Hours before the Exam
- ▶ What to do if not initially successful
- ▶ Key Resources



What is the NPS Specialty Credential?

- ▶ The Neonatal/Pediatric Specialist (NPS) credential is for Registered Respiratory Therapists (RRT) who specialize or seek to in the care of the smallest and most vulnerable patients.
- ▶ **Eligibility:** Must hold an active RRT credential.
- ▶ **Current matrix:** Current content outline effective October 2025.
- ▶ Like other NBRC exams, registration is rolling/ongoing.
- ▶ Offered at various testing sites throughout the country.



Why seek the NPS or any Respiratory Therapy Specialty Credential?

- ▶ Knowledge and skill enhancement is empowering—job opportunities.
- ▶ Neonatal and pediatric RTs are in great demand, even when overall demand for RTs is down.
- ▶ Shifting from adults to young (tiny) patients can be a welcome change, and can potentially stave off burn out.



How to Enter the Neonatal/Pediatric Respiratory Therapy “World”

- ▶ Talk to RTs who have already specialized in younger patients.
- ▶ Arrange to shadow a Neonatal/Peds RT.
- ▶ Ask to be assigned to those areas at your hospital or clinic.
- ▶ Decide if you think it is for you.
- ▶ If you think it's for you:
 - ▶ Let your manager know.
 - ▶ Check job openings.
 - ▶ Familiarize yourself with the equipment.
 - ▶ Review sources on neonatal and pediatrics diagnostics and treatments.
- ▶ Study for and take the NPS exam



Key Differences Between Adults and Pediatric/Neonatal Patients

- ▶ More than just size and grey hair...or no hair!
- ▶ Infants are much more easily stressed.
- ▶ Infants respond to stress differently.
 - ▶ Bradycardia and Apneas
 - ▶ Brown fat metabolism
- ▶ They decompensate faster—requiring a quick and appropriate response.
- ▶ The diseases they get are often different.
- ▶ Medications may not be approved and dosages need to be adjusted.



Key Resources- NBRC Website Overview -- <https://www.nbrc.org/examinations/>

The screenshot shows the NBRC website for the Neonatal/Pediatric Specialty (NPS) examination. The page features the NBRC logo at the top, followed by navigation links for candidates, credentialed practitioners, and educators. The main heading is "Neonatal/Pediatric Specialty (NPS)". Below this, a paragraph describes the examination's purpose: to measure the knowledge and skills of respiratory therapists in neonatal/pediatric respiratory care. A purple circle with "RRT-NPS" is also present. A dark green button labeled "Apply for the NPS Examination Now" is located below the text. A horizontal row of seven icons with labels below them includes: SCORING, ADMISSION REQUIREMENTS, FREE PRACTICE EXAM, SELF-ASSESSMENT, GENERAL EXAM INFO, EXAM FAQs, and VOUCHERS. The "Scoring" section is expanded, showing text about the Detailed Content Outline (effective October 2025) and the exam structure (170 multiple-choice questions, 150 scored, 20 pretest, over a 4-hour period). A chat bubble in the bottom right corner says "Need help? Chat with us!" with a "Leave a message" button below it.

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https://www.nbrc.org/examinations/nps/

NBRC
The National Board for Respiratory Care®

candidates | credentialed practitioners | educators

Neonatal/Pediatric Specialty (NPS)

The Neonatal/Pediatric Respiratory Care Specialty (NPS) Examination objectively measures the knowledge and skills of respiratory therapists working in this specialty area. It goes above and beyond general respiratory care activities to focus specifically on competencies that are unique to neonatal/pediatric respiratory care. Therefore, wearing the RRT-NPS badge of distinction signals to employers, colleagues, and patients that your skills are highly specialized.

The NPS Examination is available for respiratory care professionals who have proven their dedication to excellence by earning the Registered Respiratory Therapist (RRT) credential. For more information, click or tap on a topic below, or visit our [NPS Exam FAQs](#).

[Apply for the NPS Examination Now](#)

RRT-NPS

SCORING | ADMISSION REQUIREMENTS | FREE PRACTICE EXAM | SELF-ASSESSMENT | GENERAL EXAM INFO | EXAM FAQs | VOUCHERS

Scoring

Refer to the Detailed Content Outline for the date when you plan to take the examination.

NPS Detailed Content Outline – Effective October 2025

This examination consists of 170 multiple-choice questions (150 scored and 20 pretest) taken over a 4-hour period.

Need help?
Chat with us!

[Leave a message](#)

Key Resources- Kettering and Other Proprietary Exam Preparation Options

- ▶ Kettering national Seminars – ketteringseminars.com
- ▶ Lindsey-Jones – lindsay-jones.com
- ▶ RRTprep – rrtprep.com
- ▶ NPS Prep—npsprep.com
- ▶ Practice Test Geeks - Practicetestgeeks.com



NPS Examination Matrix Overview

- ▶ 170 Multiple Choice Questions (150 scored & 20 pre-test)
- ▶ 4 Hour Time Allotment
- ▶ Three Cognitive Questions Types
 - ▶ Recall: Least Common—
 - ▶ What is the normal range of fetal HgB in a newborn?
 - ▶ Application: Most Common—
 - ▶ Direct next step
 - ▶ Which assessment should the RT perform first?
 - ▶ Analysis: Most Challenging
 - ▶ Course of action based on multiple factors
 - ▶ Course of action based on multiple factors—Why should we do that?



Examination Matrix Overview—Primary Knowledge Domains

- ▶ The NPS Exam is broken down by **Primary Knowledge Domains** which define competencies specific to the NPS specialty.
- ▶ Each domain **contributes a weighted percentage** of total scored questions.
- ▶ More preparation time should be devoted to:
 - ▶ More heavily weighted domains
 - ▶ ...and domains with which you are least familiar.
- ▶ Heavily Weighted Domain Examples:
 - ▶ I. A. Assess Information (Patient history, Physical exam, Labs, Imaging)-12 Items
 - ▶ II. C Manage Ventilation & Oxygenation(Initial settings, Modes)—30 items
 - ▶ II. D. Facilitate Procedures & Evaluate (Transport, Medication instillation, ECMO)-17 Items



NPS Exam Matrix Excerpt

 Neonatal/Pediatric Specialty Examination Detailed Content Outline	Ethics	Counts for Each Minipool			Item Counts for Each Form		
		Cognitive Level			Cognitive Level		Total
		Recall	Application	Analysis	Recall	Integration	
- Bank nomenclature depends on linkages of multiple-choice items to open cells on the right. - Items are assembled into a minipool containing an item sampling group (ISG) for each combination of specifications. - Forms will be administered by a linear-on-the-fly system produced from a set of ISGs.							
I. COMPETENCIES SHARED BETWEEN CRITICAL AND GENERAL CARE OF NEONATAL OR PEDIATRIC PATIENTS		16	47	17	16	64	80
A. Assess Information		3	9	0	3	9	12
1. Patient medical / surgical history							
a. current							
b. past							
2. Physical examination							
3. Laboratory values							
4. Imaging results, for example, - chest radiograph - cardiac catheterization and angiography - echocardiography - fluoroscopy - MRI - CT							
5. Indices of respiratory physiology and mechanics, for example, - oxygenation - work of breathing - sleep study results							
6. Cardiovascular, for example, - cyanosis - syncope - exercise dyspnea							

Sample Content Categories—I. A. Assessing Patient Information



Patient History

Pre-existing conditions, immunizations, and environmental factors crucial for pediatric risk assessment.



Physical Exam

Inspection, palpation, and auscultation techniques tailored for neonates and pediatric populations.



WOB Indices

Evaluation of respiratory mechanics, sleep study results, and active work of breathing signs.



Sample Content Categories -- Indices of Respiratory Physiology

Key Monitoring Parameters

- **Oxygenation Index (OI):** A critical measure of lung injury severity.
- **Gas Exchange:** Monitoring SPO2 and ETCO2 tensions.
- **Spirometry:** Peak flows, MIP, and lung volume indices

$$OI = \frac{F_iO_2 \times MAP}{P_aO_2} \times 100$$



Sample Content Categories-- Laboratory Evaluation Metrics

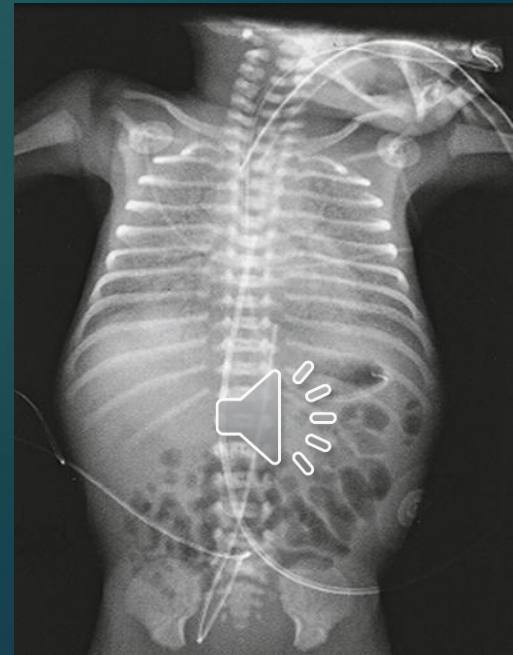
▶ Hematology & Chemistry

- ▶ ABG's
- ▶ CBC and Hemoglobin
- ▶ Electrolytes (Na, K, Cl)
- ▶ Glucose and Sweat Test results
- ▶ Albumin and Nutritional markers



Sample Content Categories--Imaging and Radiographic Assessment

- ▶ **Chest Radiograph:** Evaluating cardiac silhouette and lung fields.
- ▶ **The "Sail Sign":** Recognizing normal thymus vs. pathology in neonates.
- ▶ **Advanced Imaging:** CT, MRI, and Ultrasound for surgical and neurological cases.
- ▶ **Cardiac:** Echocardiography and Cardiac Catheterization.



Sample Content--Airway Challenges and Management

- ▶ The examination emphasizes both the selection of equipment and the management of airway clearance.
- ▶ **Anomalies:** Congenital obstructions and critical airways.
 - ▶ Esophageal Atresia
- ▶ **Accidents:**
 - ▶ Unplanned extubations and decannulations.
 - ▶ Foreign body obstruction
- ▶ **Clearance:** High-frequency chest wall oscillation (HFCWO) and PEP therapy.



Sample Content Categories-- Pharmacology and Aerosol Agents

► Medication Types

- Aerosolized agents, sedatives, hypnotics, and neuromuscular blockers.
- **Reversal Agents**-Naloxone administration protocols for neonates.
- Special applications: Indomethacin for PDA closure
- **Systemic Relief** -- Smooth muscle relaxants like Magnesium Sulfate and Terbutaline.
- INO-Only FDA approved indication is for Persistent Pulmonary Hypertension of the Newborn (PPHN).



Sample Content-Advanced Airway Management

▶ Intubation Procedures

- ▶ Specialty laryngoscope visualization devices and equipment selection for critical airways.
- ▶ Appropriate sized airways
- ▶ Difficult/Emergency Airways-Bronch Assisted
- ▶ Confirming placement – Capnography, breath sounds

▶ Artificial Airway Care

- ▶ Positioning
- ▶ Securement
- ▶ Monitoring and adjusting



Sample Content--Ventilation Modes and Strategies



Strategic focus on selecting initial settings and weaning protocols.



Sample Content--Specialty Gas Administration

- ▶ **Nitric Oxide (INO) and Heliox**
- ▶ INO: Administration for Persistent Pulmonary Hypertension of the Newborn.
 - ▶ Initial Dose: 20 PPM
 - ▶ Weaning: 20-15-10-5-4-3-2-1
- ▶ Heliox- Airway obstruction Asthma
 - ▶ 80/20%
 - ▶ 70/30%
- ▶ Requires knowledge of dosing, delivery systems, and weaning to avoid rebound hypertension or increased work of breathing.



Sample Content--Extracorporeal Life Support (ECMO)

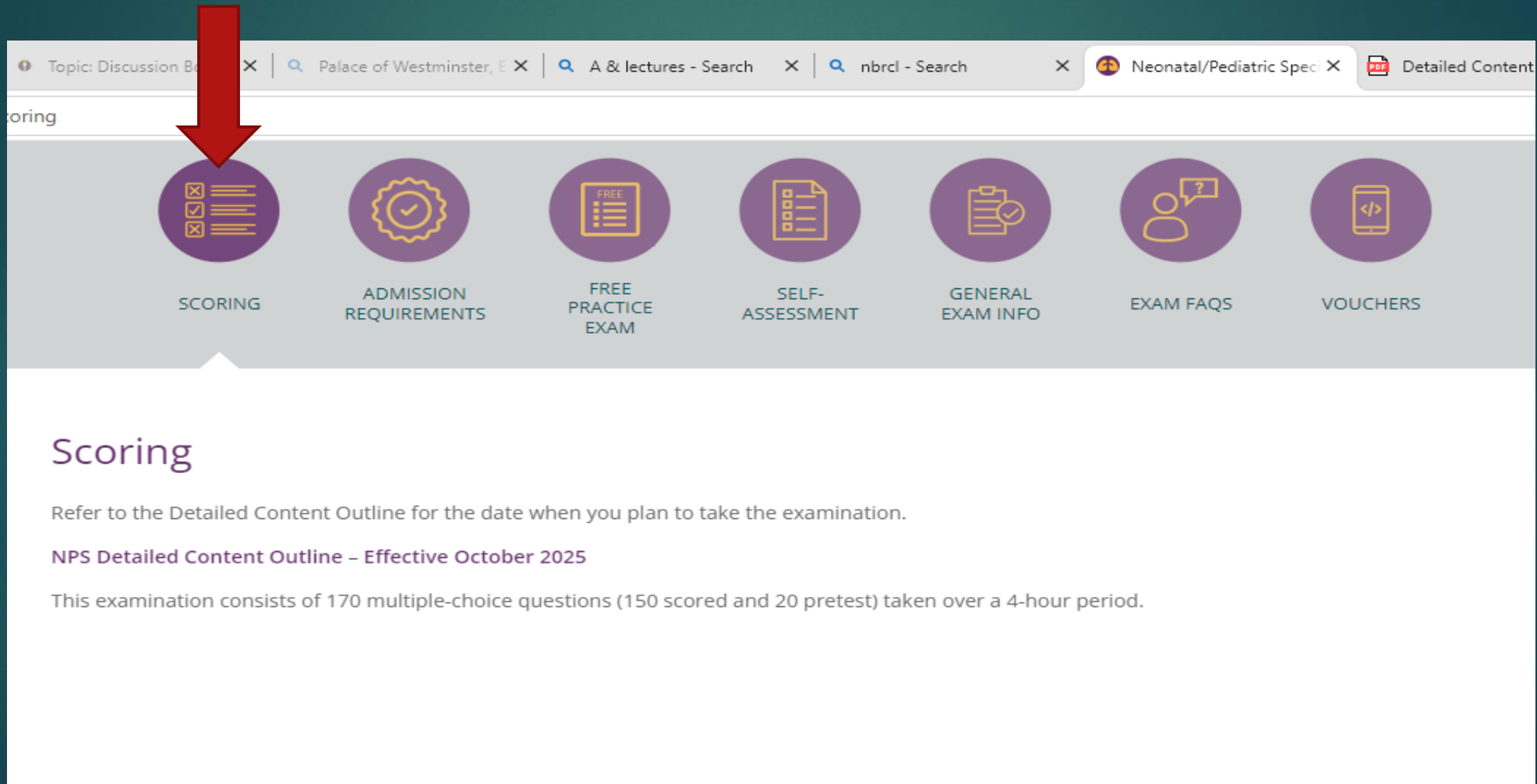
- ▶ **Critical Intervention—IRDS, Heart Anomalies**
- ▶ **CO2 Removal:** Maintaining acid-base balance.
- ▶ **Terms:**
 - ▶ Sweep: Relates to CO2 removal and to lesser extent oxygenation.
 - ▶ Flow: Relates to augmenting blood-flow and Cardiac Output
 - ▶ Veno-venous
 - ▶ Blood drained and re-infused back into the venous circulation
 - ▶ More common in infants
 - ▶ Veno-arterial-Supports cardiac output
- ▶ **Lung Protection:** "Rest" settings during ECMO run.



Sample Content--Ethics and End-of-Life Care

- ▶ **Ethics Mandatory Exam Items**
- ▶ Every test form includes **3 items** engaging thinking about ethics to select the best answer.
- ▶ Areas include:
 - ▶ Advance Directives and Palliative Care.
 - ▶ Determination of Brain Death.
 - ▶ Organ Donor Care and Withdrawal of Support 

Other Key NBRC Resources-Exam Scoring



The screenshot shows a web browser with multiple tabs. The active tab is titled 'Neonatal/Pediatric Spec'. Below the browser tabs is a navigation bar with seven circular icons and their corresponding labels: 'SCORING' (highlighted with a red arrow), 'ADMISSION REQUIREMENTS', 'FREE PRACTICE EXAM', 'SELF-ASSESSMENT', 'GENERAL EXAM INFO', 'EXAM FAQs', and 'VOUCHERS'. Below the navigation bar, the 'Scoring' section is displayed, featuring a heading 'Scoring' and a paragraph: 'Refer to the Detailed Content Outline for the date when you plan to take the examination.' Below this is a link: 'NPS Detailed Content Outline – Effective October 2025'. At the bottom of the section, another paragraph states: 'This examination consists of 170 multiple-choice questions (150 scored and 20 pretest) taken over a 4-hour period.'

Topic: Discussion Board X | Palace of Westminster, E X | A & lectures - Search X | nbrc - Search X | Neonatal/Pediatric Spec X | Detailed Content

Scoring

SCORING

ADMISSION REQUIREMENTS

FREE PRACTICE EXAM

SELF-ASSESSMENT

GENERAL EXAM INFO

EXAM FAQs

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Scoring

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[NPS Detailed Content Outline – Effective October 2025](#)

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Other Key NBRC Resources-Free Practice Exam



SCORING



ADMISSION
REQUIREMENTS



FREE
PRACTICE
EXAM



SELF-
ASSESSMENT



GENERAL
EXAM INFO



EXAM FAQs



VOUCHERS



Other Key NBRC Resources-General exam Information



SCORING



ADMISSION
REQUIREMENTS



FREE
PRACTICE
EXAM



SELF-
ASSESSMENT



GENERAL
EXAM INFO



EXAM FAQs



VOUCHERS

General Exam Info: Tools for Candidates

These additional tools are available at no cost to help you prepare for the examination:

- **Candidate Handbook:** Information, applications, and other forms for all NBRC credentialing examinations
- **NPS Detailed Content Outline – Effective October 2025**
- **Free Practice Exam:** An online simulation of the real NPS Examination experience using identical software.

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Other Key NBRC Resources-Frequently Asked Questions



is/nps/#exam-faqs



SCORING



ADMISSION REQUIREMENTS



FREE PRACTICE EXAM



SELF-ASSESSMENT



GENERAL EXAM INFO



EXAM FAQS



VOUCHERS

NPS Exam FAQs

- + What are the admission requirements for the NPS Examination?
- + What is the application process, and how long does it take?
- + What are the examination fees?
- + Are any examination fee discounts offered?
- + When is the application deadline?



How to Prepare for the Exam--Study Techniques

- ▶ Use a logical and **structured approach**.
- ▶ Make preparing for and passing the Exam **a priority**.
- ▶ Let loved ones/friends know.
- ▶ Allocate an **appropriate time**.
- ▶ **Plan ahead** and select an exam date which allows adequate time—Roughly 1-2 months.
- ▶ Devote more time to more heavily weighted Exam domains/sections.
- ▶ Identify and focus on of weakness.
- ▶ Use reliable sources.
- ▶ Avail yourself of NBRC resources.
- ▶ Gain legitimate access to as many practice questions as you can and take/retake practice exams.



Do's & Don'ts

▶ What **TO** do

- ▶ Pace yourself in preparing—min. 1-2 month in advance.
- ▶ Encourage your peers to start a study group.
- ▶ Become familiar with the exam matrix.
- ▶ Test practice exam and questions.
- ▶ Get enough rest in advance.
- ▶ You'll be nervous, but this test does not define your life!

▶ What **NOT** to do

- ▶ Underestimate the exam.
- ▶ Place too much pressure on yourself.
- ▶ Party the night before.



Day or two before the Exam

- ▶ Know the location. Take a practice run if you need to.
- ▶ Understand the exam parameters.
 - ▶ Number of questions.
 - ▶ Time allotted.
- ▶ Ensure you have proper identification.
- ▶ Don't rely on unreliable people.



Test-taking Strategies

- ▶ Multiple choice exam, so the right answer is there! Recognition is generally easier than fill-in or essay.
- ▶ Don't get psyched out if the first few questions are hard. They may do this on purpose to shake you.
- ▶ Don't change your answer unless you have misread the question/answer or identified an obvious (mathematical) error.
- ▶ Don't spend too much time on one question. You can go back and answer it later.



Test-taking Strategies

- ▶ If you don't know the right answer, try to identify wrong ones, or outliers.
 - ▶ At least eliminate them.
 - ▶ Turn a 25% chance into a 33% or 50% chance.
- ▶ If you don't know, generally your first inclination is more often correct than the answer you change it to.
- ▶ Corollary: If you don't know the answer but have a hunch, go with that choice. Often your first hunch is correct, provided you have studied
- ▶ If you don't know all of the information in a question (e.g. normal electrolyte or CBC values) focus on what you do know. Many times, just like in a clinical setting, you often don't have all of the information but make recommendations on what you do know.



What to do if not initially successful

- ▶ Determine how much you missed the cut/passing score, which will determine how much work you have to do.
- ▶ Identify weaker areas.
- ▶ Identify and reflect on what needs to be done differently.
 - ▶ Time allocation?
 - ▶ Reduce/eliminate distractions
 - ▶ Focus on weaker and highly weighted content areas
- ▶ Can retake the exam for a second time at any interval but must wait 120 days for subsequent attempts. 

Key Takeaways

- ▶ The NPS specialty credential can expand your career opportunities.
- ▶ Decide on your level of desire and commitment before embarking on the NPS Exam.
- ▶ Know the exam matrix and identify weaker content areas, especially ones heavily emphasized on the exam.
- ▶ If you are motivated to attain the NPS credential, prepare appropriately:
 - ▶ Avail yourself of resources:
 - ▶ NBRC
 - ▶ Proprietary review courses and materials
 - ▶ Take a structured approach to studying and preparing for the Exam
 - ▶ Use appropriate test-taking strategies
- ▶ If you don't succeed at first, try, try again.



Key References

American Association for Respiratory Care. (2024). *Neonatal-pediatric specialist prep course*. <https://www.aarc.org/education/neonatal-pediatric-specialist-prep-course/>

Stoller, J. K., Heuer, A. J., et al (2025). *Egan's fundamentals of respiratory care* (13th ed.). Elsevier.

National Board for Respiratory Care. (2025). *Neonatal/Pediatric Specialty examination: Detailed content outline*. <https://www.nbrc.org/examinations/nps/>

Volsko, T. A., Chatburn, R. L., & El-Khatib, M. F. (2022). *Foundations in neonatal and pediatric respiratory care* (2nd ed.). Jones & Bartlett Learning.

Walsh, B. K. (2026). *Neonatal and pediatric respiratory care* (7th ed.). Saunders Elsevier.

