



National Registry of Emergency Medical Technicians®

THE NATION'S EMS CERTIFICATION™

National Registry Emergency Medical Responder Examination Specifications

About the Emergency Medical Responder Examination Specifications

The “National Registry Emergency Medical Responder (EMR) Examination Specifications” provides important information about the EMR Certification Examination for stakeholders, such as current candidates, Emergency Medical Services (EMS) students, and EMS educators. The EMR Certification Examination will be administered starting Spring 2025.

This document outlines the content of the examination, as determined through the *2023 Basic Level Support Practice Analysis Report*, and it provides information regarding the development and administration of the examination. Also included are sample items and information about the item development process.

Examination Purpose

The aim of the EMR Certification Examination is to determine whether EMS professionals at this provider level can demonstrate the entry-level knowledge, skills, and abilities required to competently perform their job. It is expected that a newly certified EMR can provide safe and effective prehospital emergency medical care. The entry-level EMR can evaluate and manage the scene to perform safety assessments, address immediate life threats, perform timely and appropriate primary and secondary assessments, provide adequate interventions, and prepare to transfer care to a higher level. Additionally, the entry level EMR appropriately manages resources and incidents within standards of care.

Development of the Test Plan

The EMR Certification Examination has evolved over the past five decades to become the most valid, reliable, and respected measurement tool employed by millions of EMS providers nationwide in their quest to attain National EMR Certification. In order to ensure the examination measures current practice, the National Registry conducts practice analysis studies to identify the knowledge, skills, and abilities (KSAs) required in the EMS practice settings. The information gathered by practice analysis studies is then used to determine the content of the examinations, also known as a “test plan.”

The *2023 Basic Level Support Practice Analysis* examined the knowledge and skills needed for the EMR as it related to critical tasks that the EMR performs in their role. The tasks were grouped into the following five areas: 1) Scene Size-up and Safety, 2) Primary Assessment, 3) Secondary Assessment, 4) Patient Treatment and Transport, and 5) Operations.

Content for the EMR Certification Examination

Content Domains

The *2023 Basic Level Support Practice Analysis* evaluated critical job tasks performed by the EMR for the five areas, or “domains,” described above. These five domains are collectively referred to as the “content domains”:

1. Scene Size-up and Safety
2. Primary Assessment
3. Secondary Assessment
4. Patient Treatment and Transport
5. Operations

Content Outline

The content domains, job tasks, and the associated knowledge and skills form the basis of the EMR Certification Examination. The content outline for the examination is presented below:

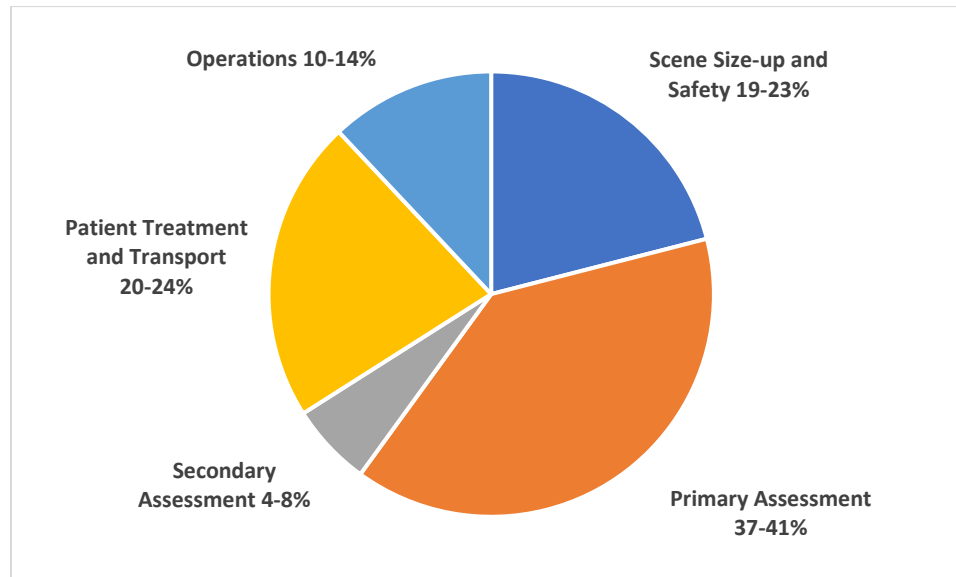
Content Domain	Related Job Tasks
Scene Size-up and Safety	<p>Develop a plan of action prior to arrival using all available information to ensure safe and effective operations.</p> <p>Protect self, other responders, patient, public, and the emergency scene from existing and potential hazards.</p> <p>Don appropriate personal protective equipment (PPE) based on known hazards to protect responders from exposure.</p> <p>Investigate the scene to determine potential patients.</p> <p>Triage patients to ensure optimal care.</p> <p>Request appropriate resources based on known hazards and patient conditions to mitigate all facets of the emergency scene.</p>
Primary Assessment	<p>Communicate with the patient and/or bystanders to establish rapport.</p> <p>Determine a general impression of the patient.</p>

	<p>Assess patient's level of consciousness.</p> <p>Assess patient's airway.</p> <p>Assess patient's breathing status.</p> <p>Assess patient's circulation.</p> <p>Determine chief complaint and life threats.</p> <p>Obtain results of patient's baseline vital signs and diagnostic testing.</p> <p>Identify the need for rapid treatment, rapid transport, or additional resources.</p>
Secondary Assessment	<p>Investigate patient's current condition and needs through focused physical assessment, interviewing, and past medical history to develop a continued treatment plan.</p> <p>Investigate previous findings and interventions through reassessment to determine any changes in the patient's condition.</p>
Patient Treatment and Transport	<p>Manage patient's airway, ventilation, and oxygenation.</p> <p>Manage patient's cardiovascular and circulatory system.</p> <p>Manage motion restriction of patient's musculoskeletal system.</p> <p>Administer medication.</p> <p>Manage interventions specific to special populations.</p> <p>Manage patient transport.</p> <p>Communicate pertinent patient information.</p>
Operations	<p>Ensure the equipment is in proper working order.</p> <p>Ensure sufficient inventory of medication and supplies utilized in patient care.</p> <p>Ensure that proper documentation is completed.</p> <p>Ensure the well-being of self and other responders.</p>

Content Distribution for the EMR Certification Examination

The percentage of test questions aligned to each domain was determined through a statistical analysis of data collected through the *2023 Basic Level Practice Analysis* such that tasks performed by the EMR (and the associated knowledge and skills) were weighted more heavily. The portion of the exam allocated to each content domain is presented below:

Content Domain	Percent of Examination
Scene Size-up and Safety	19–23%
Primary Assessment	37–41%
Secondary Assessment	4–8%
Patient Treatment and Transport	20–24%
Operations	10–14%



Item Development

The examination development process follows multiple steps. Examination items are developed to measure each of the content areas described in the test plan. Every examination item is written by a subject matter expert (SME) in EMS who is trained in item-writing best practices and techniques. These experts also reference each item to industry-standard source materials.

The Examinations team then performs several rounds of internal review of each item for clinical accuracy, alignment with the scope of practice, factual correctness, clarity, adherence to style guidelines, and reference completeness. Next, a committee of external SMEs reviews each item for accuracy, correctness, relevance, currency, and proper scope of practice. Items are then reviewed again by internal staff for final confirmation of adherence to all accuracy, quality, and stylistic standards.

The entire process to develop an examination item can take six months or longer from start to finish. Following the reviews, each item is piloted. That is, the item is placed as an unscored item on an examination to collect additional data to ensure the item is psychometrically sound before placement as a scored item in a future examination.

Examination Administration

Computerized Adaptive Testing (CAT)

The EMR Certification Examination is administered through a Computerized Adaptive Testing (CAT) format. CAT examinations are delivered in a different manner than fixed-length exams. After an initial set of items, the computer will begin to administer items that are targeted at or above the candidate's estimated level of ability.

Because the computer delivers items that are more aligned with the candidate's level of understanding, it can determine candidate proficiency in a fewer number of items in many cases. If the computer can make a pass/fail determination in the minimum number of items with 95% confidence, the test administration will end. In some circumstances, it may take longer, and the computer will continue to administer items until the maximum number of items is reached or the maximum time allotted is reached.

Examination Length

Candidates have 1 hour and 45 minutes to complete the EMR Certification Examination. The examination is administered in Pearson VUE testing centers or within a home or office setting using Pearson VUE's online proctoring platform, OnVUE. Candidates will be required to answer a minimum of 90 items. The examination may extend to a maximum of 110 items.

Unscored Content

The examination includes 30 unscored pilot items. These items are included in the examination for purposes of collecting data to determine if the quality of the question meets the requirements to move forward on a future examination as a scored item. These items are not identified and will not affect a candidate's score.

Item Types

The EMR Certification Examination includes a variety of item types. All items are scored dichotomously; that is, candidates receive full credit for a correct response. No credit is provided for a partially correct response. These item types are described below:

- **Multiple Choice:** Candidates must select one correct response out of four possible options.

- **Multiple Response:** Candidates must select two or three correct responses out of five or six possible options. There must be three incorrect responses.
- **Build List:** Candidates must position several presented options into the order specified in the item instructions.
- **Drag-and-Drop:** Candidates must position several presented options into certain categories, classifications, or other identifiers as specified in the item instructions.
- **Options Table:** Candidates must classify, categorize, or identify several options presented in a table based on certain specified criteria.

Sample Items

Sample items for the variety of item types are provided in **Appendix A**.

Passing Standard

The passing standard is the level of knowledge or ability that a competent EMS provider must demonstrate to achieve a passing score on the examination. The passing standard is determined through a standard-setting study, a formal qualitative process in which a trained psychometrician facilitates the collection of data provided by a representative panel of nationally based SMEs from the EMS workforce. The result of this study is a recommended cut score that is provided to the National Registry Board of Directors along with additional data for consideration regarding the impact on the EMS community and the public.

Once the standard is approved by the Board of Directors, it is uniformly applied to all candidates. The passing standard is reviewed each time new examination specifications are implemented.

Appendix A: Sample Items

Multiple-Choice Item

A 45-year-old patient is in cardiac arrest after being rescued from a pool. Lifeguards are providing chest compressions. The EMR is considering whether to first:

- **Action 1:** Dry the patient's chest and apply the AED.
- **Action 2:** Stop CPR and check for a carotid pulse.

Which of these actions should the EMR take first, if either?

- A. Action 1 only
- B. Action 2 only
- C. Either action
- D. Neither action

Multiple-Response Item





Upon arriving on scene, the EMR observes an adult patient pacing around yelling, "I am the warrior." After requesting additional resources, what actions should the EMR prioritize? Select the two answer options that are correct.

- A. Leave the scene.
- B. Apply physical restraints.
- C. Maintain a safe distance.
- D. Obtain a SAMPLE history.
- E. Attempt verbal de-escalation.

Build List Item

A 26-year-old patient is apneic after being removed from a swimming pool. What order of actions should the EMR take for this patient at this time? Move the options into the **Answer Area** to show the correct order of actions.

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Options	Answer Area <i>Order of actions from first (1) to last (3)</i>
Check for a pulse	<div style="display: flex; justify-content: space-between; align-items: center;"><div style="text-align: center;"> </div><div style="text-align: center;"> </div></div>
Provide rescue breaths	
Attach the AED	

Drag-and-Drop Item

The EMR is assessing the vital signs of a 2-year-old patient. What heart rate and systolic blood pressure measurement should the EMR consider within normal limits? Move the heart rate that is within the normal limit into the **Answer Area**, and move the systolic blood pressure measurement that is within the normal limit into the **Answer Area**.

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<p>Heart rates</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px; text-align: center;">40/min</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px; text-align: center;">60/min</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px; text-align: center;">80/min</div> <p>Systolic blood pressure measurements</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px; text-align: center;">70 mmHg</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px; text-align: center;">90 mmHg</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px; text-align: center;">120 mmHg</div>	● ● ● ●	<p>Answer Area</p> <div style="border: 1px dashed #ccc; height: 30px; margin-bottom: 10px;"></div> <p style="margin-left: 20px;">Heart rate within normal limit</p> <div style="border: 1px dashed #ccc; height: 30px; margin-bottom: 10px;"></div> <p style="margin-left: 20px;">Systolic blood pressure measurement within normal limit</p>
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Options Table Item

In which abdominal region, upper or lower, is each of the organs listed below located? Select the corresponding abdominal region for each organ.

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Answer Area

	<i>Upper abdomen (Select 2 options)</i>	<i>Lower abdomen (Select 2 options)</i>
<i>Appendix</i>	<input type="radio"/>	<input type="radio"/>
<i>Spleen</i>	<input type="radio"/>	<input type="radio"/>
<i>Gallbladder</i>	<input type="radio"/>	<input type="radio"/>
<i>Urethra</i>	<input type="radio"/>	<input type="radio"/>