



National Registry

New Examinations Sample Packet

National Registry Sample Packet

- Starting July 1, 2024, AEMT and Paramedic Certification Examinations will change.
- A new domain of *clinical judgment* will be assessed.
- The purpose of this packet is to provide examination content exemplars for AEMT and NRP candidates, EMS educators, state officials, and other interested parties.



National Registry Sample Packet

This packet contains information in the following areas:

- Clinical judgment scenario sample screens
- Definitions of clinical judgment, which include aspects of leadership and communications
- The steps used in clinical judgment
- Sample of items used by National Registry



Clinical judgment scenario snapshots

Examples of the scenario and items as viewed by the candidate in the testing center.



En Route

Scene

Post Scene

The AEMT is dispatched to a dentist's office for a 32-year-old patient who is weak, dizzy, and agitated. The time of the call is 1015. The response time will be 9 minutes.

The AEMT is partnered with an EMT, and a BLS fire department engine crew is dispatched with the ambulance. The patient is located inside the office. There is heavy rainfall in the area and the temperature is 42°F (6°C). A local community hospital is located 12 minutes away, and a comprehensive medical facility is located 30 minutes away.

En Route

What en route information should the AEMT prioritize for response and scene readiness? Select the two answer options that are correct.

- A. Time of day
- B. Indoor location
- C. Report of agitation
- D. Weather conditions
- E. Engine crew resource

Item



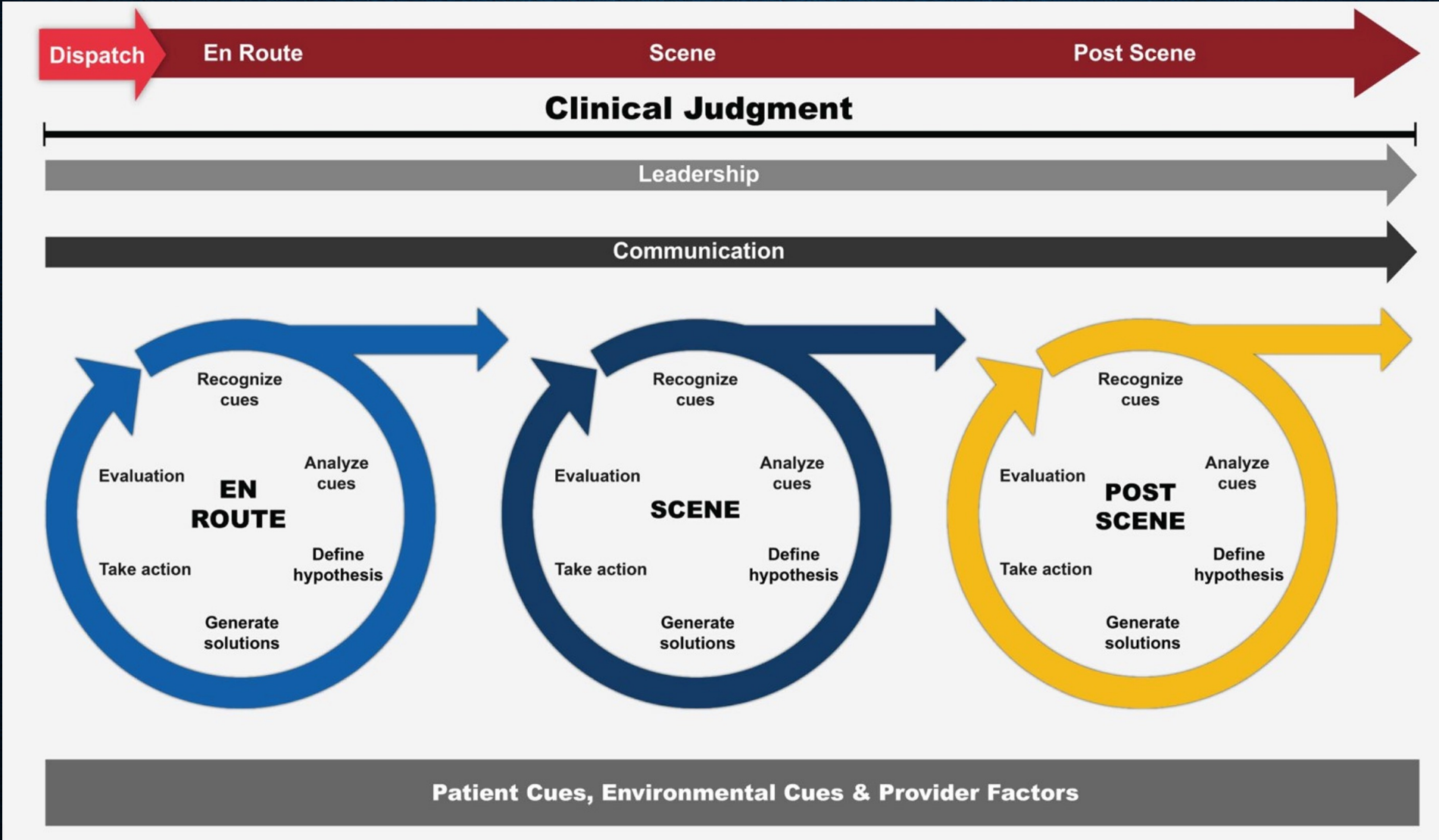
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Theoretical framework for clinical judgment in EMS





A 52-year-old patient has been experiencing severe chest discomfort and lightheadedness for 2 hours. The symptoms began while the patient was exercising and were not relieved with rest. What conditions are most likely causing the patient's presentation? Select the two answer options that are correct.

- A. Acute pericarditis
- B. Pulmonary embolism
- C. Myocardial infarction
- D. Exercise-induced asthma
- E. Spontaneous pneumothorax



Clinical judgment

The complete process of clinical reasoning (that is, the thought processes a clinician uses to evaluate and sort out a development) and clinical decision-making (that is, the inference of that thought process). Clinical judgment includes investigating, experimenting, synthesizing, critical-thinking, decision-making, and problem-solving to employ a sensible solution for a given medical situation.



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En Route

Scene

Post Scene

The paramedic is dispatched to a dentist's office for a 32-year-old patient who is weak, dizzy, and agitated. Dispatch reports that the patient has a history of epilepsy, diabetes, and hyperlipidemia. The time of the call is 1015. The response time will be 9 minutes.

The paramedic is partnered with an EMT, and a BLS fire department engine crew is dispatched with the ambulance. The patient is located inside the office. There is heavy rainfall in the area and the temperature is 42°F (6°C). A local community hospital is located 12 minutes away, and a comprehensive medical facility is located 30 minutes away.

En Route

Which of the following actions should the paramedic prioritize while en route to the scene?

- A. Assigning responsibilities
- B. Contacting medical control
- C. Determining patient allergies
- D. Requesting an additional engine crew

Leadership

An EMS practitioner's ability to demonstrate the proper management and guidance of patient needs and the EMS setting, while using limited resources to improve patient outcomes and to ensure a safe scene. This is done by using knowledge, skills, and acquired competencies.



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En Route

Scene

Post Scene

The AEMT is dispatched to a dentist's office for a 32-year-old patient who is weak, dizzy, and agitated. The time of the call is 1015. The response time will be 9 minutes.

The AEMT is partnered with an EMT, and a BLS fire department engine crew is dispatched with the ambulance. The patient is located inside the office. There is heavy rainfall in the area and the temperature is 42°F (6°C). A local community hospital is located 12 minutes away, and a comprehensive medical facility is located 30 minutes away.

En Route

Which of the following is an aspect of this scene that is likely to allow for more effective **communications** than would occur on many other scenes?

- A. The patient is a dentist and is responsive.
- B. The patient's HIPAA release form is likely in place.
- C. Healthcare providers are with the patient on scene.
- D. Close family members are with the patient on scene.

Communication

An EMS practitioner's ability to convey or exchange germane information with peer EMS workers, fellow first responders, and hospital personnel such as nurses and doctors. This is done by using knowledge, skills, and acquired competencies. Communication likewise is the ability to communicate to the patient, family, or other citizen individuals found at the EMS setting.



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Clinical judgment steps identified in the framework

- Recognize cues
- Analyze cues
- Define hypothesis
- Generate solutions
- Take action
- Evaluation



En Route

Scene

Post Scene

The patient (60 kilograms) is sitting awake in a dental suite. The patient says: "Just leave me alone now! Get away from me." The office staff states that the patient reported feeling weak upon arrival for the appointment, and then became confused. The patient had been instructed to start fasting at midnight for a dental procedure today.

The patient has a history of seizures, diabetes, hyperlipidemia, and recently, dental pain. Medications include insulin that is being administered by an automated external pump, carbamazepine, hydrocodone/acetaminophen, and atorvastatin. The patient has no allergies to medications.

The patient's skin is diaphoretic, and there are no signs of trauma. The patient obeys motor commands and moves all extremities. The patient cannot give their name, location, or the date. The eyes are open, and the pupils are 5 mm and reactive. Breath sounds are clear bilaterally. The vital signs are BP 156/90, P 124, R 10, SpO₂ 95% on room air, and T 98°F (37°C). The blood glucose level is 47 mg/dL. The EtCO₂ is 40 mmHg.

Scene

Which of the following findings most strongly suggest a differential diagnosis of a diabetic emergency? Select the two answer options that are correct.

- A. End tidal carbon dioxide value
- B. Medical history
- C. Mental status
- D. Respiratory rate
- E. Pulse oximetry

Step 1: Recognize cues

A question associated with recognizing cues identifies germane and important data from the scenario-provided details. This will include information about the scene setting and patient.

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En Route

Scene

Post Scene

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Scene

What are the most likely causes of the patient's current presentation? Select the two answer options that are correct.

- A. Hypoxia
- B. Advanced myxedema
- C. Atorvastatin side effect
- D. Insulin dose management
- E. Fasting to prepare for surgery

Step 2: Analyze cues

A question associated with analyzing cues includes organizing, classifying, and matching the recognized cues to a clinical condition from the patient's findings or issues from the EMS setting.

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Scene

Based on the patient findings, what is the most probable medical emergency, and what is the most appropriate treatment for that emergency? Move the most probable emergency into the **Answer Area**, and then move the most appropriate treatment into the **Answer Area**.

Medical emergencies

- Opioid overdose
- Hypoglycemia
- Hypoxia

Treatments

- Administering a dextrose solution
- Administering intranasal naloxone
- Administering high-flow oxygen

Answer Area

Most probable medical emergency

Most appropriate treatment

Step 3: Define hypothesis

A question associated with defining a hypothesis requires the learner to evaluate and rank a working diagnosis from the patient cues found in the scenario encounter. This step includes the possibility of all possible plausible diagnoses and may lend itself to rule out other diagnoses. A scene setting issue could need to be identified.



En Route

Scene

Post Scene

After receiving a dextrose administration, the patient pulls out the IV line. The patient says: "Where am I at? What are you doing to me? My head is spinning, and I can hardly keep my eyes open. I'm going to throw up." The patient vomits. The patient has pale, cool, diaphoretic skin. The patient is not following commands. The eyes are open, and the pupils are 5 mm and reactive. The vital signs are BP 160/92, P 130, R 12, SpO₂ 95% on room air, and T 98°F (37°C). The blood glucose level is 52 mg/dL. The EtCO₂ is 40 mmHg.

Post Scene

Which of the following medications should the AEMT most strongly anticipate administering to this patient?

- A. Fentanyl
- B. Naloxone
- C. Oral glucose
- D. Ondansetron

Step 4: Generate solutions

A question associated with generating solutions uses the hypothesis to identify all reasonable solutions for improving the scene issue or the patient's condition based on course instruction and sound clinical practice.

? Help



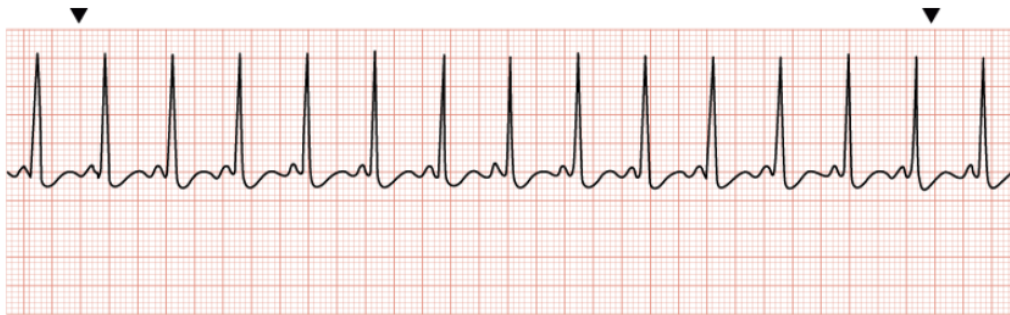
Calculator

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After receiving a dextrose administration, the patient pulls out the IV line. The patient says: "Where am I? When did I get here?" The patient vomits. The patient has pale, cool, diaphoretic skin. The patient is not following commands. The eyes are open, and the pupils are 5 mm and reactive. The vital signs are BP 160/92, P 130, R 12, SpO₂ 95% on room air, and T 98°F (37°C). The blood glucose is 52 mg/dL. The EtCO₂ is 40 mmHg.

The ECG is shown below:



Post Scene

Because of the changes in the patient's condition, which of the following actions would be most beneficial? Select the two answer options that are correct.

- A. Deliver a fluid bolus.
- B. Provide high-flow oxygen.
- C. Discontinue insulin delivery.
- D. Administer a narcotic agonist.
- E. Sit the patient upright, leaning forward.

Step 5: Take action

A question associated with taking action determines which therapy or action that the learner intends to implement based on all the previous patient assessments, physical findings, scene findings, and the candidate's clinical judgment.

After receiving a dextrose administration, the patient pulls out the IV line. The patient says: "Where am I at? What are you doing to me? My head is spinning, and I can hardly keep my eyes open. I'm going to throw up." The patient vomits. The patient has pale, cool, diaphoretic skin. The patient is not following commands. The eyes are open, and the pupils are 5 mm and reactive. The vital signs are BP 160/92, P 130, R 12, SpO₂ 95% on room air, and T 98°F (37°C). The blood glucose level is 52 mg/dL. The EtCO₂ is 40 mmHg.

Post Scene

Suppose the AEMT performs a reassessment. Which of the potential changes to the patient's presentation listed below would indicate that the patient's condition is improving, and which changes would indicate the patient's condition is worsening? Select two changes that would indicate that the condition is improving and select two changes that would indicate the condition is worsening.

Answer Area

	Condition improving (select 2 options only)	Condition worsening (select 2 options only)
Heart rate increases to 140	<input type="radio"/>	<input type="radio"/>
Patient starts to follow commands	<input type="radio"/>	<input type="radio"/>
Skin becomes dry	<input type="radio"/>	<input type="radio"/>
Tonic-clonic activity is observed	<input type="radio"/>	<input type="radio"/>

Step 6: Evaluation

A question associated with evaluation requires a candidate to assess the observed outcomes in contrast to expected outcomes to determine if clinical or scene conditions are improving, deteriorating, or remaining the same.



Item types used during National Registry certification examinations

- Multiple choice
- Multiple response
- Graphical
- Drag-and-drop
- Build list (ordering and sequencing)
- Options box



A 40-year-old patient fell from a roof and is unresponsive. Their vital signs are BP 190/110, P 44, R 28, and SpO₂ 91% on room air. What is most likely causing the vital signs?

- A. Increased intracranial pressure
- B. Decreased brain stem pressure
- C. Decreased intrathoracic pressure
- D. Increased cardiac perfusion pressure

Item type: Multiple choice

Candidates must select one correct response out of four possible options.

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A 52-year-old patient has been experiencing severe chest discomfort and lightheadedness for 2 hours. The symptoms began while the patient was exercising and were not relieved with rest. What conditions are most likely causing the patient's presentation? Select the two answer options that are correct.

- A. Acute pericarditis
- B. Pulmonary embolism
- C. Myocardial infarction
- D. Exercise-induced asthma
- E. Spontaneous pneumothorax

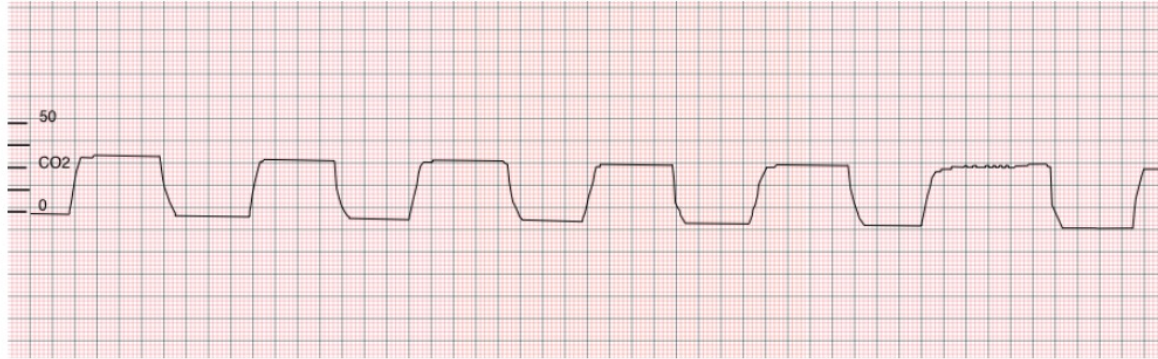
Item type: Multiple response

Candidates must select two or three correct responses out of five or six possible options, respectively.

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A 19-year-old patient has difficulty breathing after having an argument. The patient's vital signs are BP 140/90, P 116, R 40, SpO₂ 95% on room air, and EtCO₂ 38 mmHg. The patient's waveform capnography is shown below:



What does this waveform indicate, normal morphology or abnormal morphology?

- A. Normal morphology, because the waveform is box-shaped and consistent
- B. Normal morphology, because of the rate of the waveform
- C. Abnormal morphology, because the waveform is box-shaped and consistent
- D. Abnormal morphology, because of the rate of the waveform

Item type: Graphical

Candidates must use information provided in graphical form to answer the item. Examples of the graphics presented include charts, ECG rhythm strips, images, and pictures. Graphics may be included in any of the item types.

The patient (60 kilograms) is sitting awake in a dental suite. The patient says: "Just leave me alone now! Get away from me." The office staff states that the patient reported feeling weak upon arrival for the appointment, and then became confused. The patient had been instructed to start fasting at midnight for a dental procedure today.

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Scene

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Medical emergencies

Opioid overdose

Hypoglycemia

Hypoxia

Treatments

Administering a dextrose solution

Administering intranasal naloxone

Administering high-flow oxygen

Answer Area

Most probable medical emergency

Most appropriate treatment

Item type: Drag-and-drop

Candidates must position several presented options into certain categories, classifications, or other identifiers as specified in the item instructions.



After receiving a dextrose administration, the patient pulls out the IV line. The patient says: "Where am I at? What are you doing to me? My head is spinning, and I can hardly keep my eyes open. I'm going to throw up." The patient vomits. The patient has pale, cool, diaphoretic skin. The patient is not following commands. The eyes are open, and the pupils are 5 mm and reactive. The vital signs are BP 160/92, P 130, R 12, SpO₂ 95% on room air, and T 98°F (37°C). The blood glucose level is 52 mg/dL. The EtCO₂ is 40 mmHg.

Post Scene

What conditions are likely to explain the patient's continued signs and symptoms despite appropriate treatment? Move each option into the **Answer Area** to order the conditions from the most likely to least likely explanations of the continued signs and symptoms.

Options

- Seizure
- Diabetic emergency
- Respiratory distress

Answer Area

Most likely (1) to least likely (3) explanations



Item type: Build list
Candidates must position several presented options into the order specified in the item instructions.



After receiving a dextrose administration, the patient pulls out the IV line. The patient says: "Where am I at? What are you doing to me? My head is spinning, and I can hardly keep my eyes open. I'm going to throw up." The patient vomits. The patient has pale, cool, diaphoretic skin. The patient is not following commands. The eyes are open, and the pupils are 5 mm and reactive. The vital signs are BP 160/92, P 130, R 12, SpO₂ 95% on room air, and T 98°F (37°C). The blood glucose level is 52 mg/dL. The EtCO₂ is 40 mmHg.

Post Scene

Suppose the AEMT performs a reassessment. Which of the potential changes to the patient's presentation listed below would indicate that the patient's condition is improving, and which changes would indicate the patient's condition is worsening? Select two changes that would indicate that the condition is improving and select two changes that would indicate the condition is worsening.

Answer Area

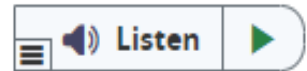
	<i>Condition improving</i> <small>(select 2 options only)</small>	<i>Condition worsening</i> <small>(select 2 options only)</small>
<i>Heart rate increases to 140</i>	<input type="radio"/>	<input type="radio"/>
<i>Patient starts to follow commands</i>	<input type="radio"/>	<input type="radio"/>
<i>Skin becomes dry</i>	<input type="radio"/>	<input type="radio"/>
<i>Tonic-clonic activity is observed</i>	<input type="radio"/>	<input type="radio"/>

Item type: Options box

Candidates must classify, categorize, or identify several options presented in a table based on certain specified criteria.




For further details:





Articles

A Proposed Theoretical Framework for Clinical Judgment in EMS

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