

### Presented by

#### Jeff Solheim, MSN, RN, CEN, TCRN, CFRN, FAEN

Jeff brings with him a wealth of nursing background, including clinical nursing in medical-surgical and emergency medicine, cruise-ship nursing, flight nursing, nursing management and administration, and as a state surveyor and nursing educator. Jeff is a well-known motivational and clinical speaker as well as an author. He has written more than 30 books, contributed to dozens more and has served as editor for numerous publications. Jeff, who is a Fellow in both the Academy of Emergency Nursing (AEN) and the American Academy of Nursing, served as president of the Emergency Nurses Association (ENA) in 2018 and as president of the Nursing Organizations Alliance in 2019 and 2020.

Aside from his work in the nursing field, Jeff founded the humanitarian organization Project Helping Hands, which deployed medical teams around the world. He has personally visited over 15 countries and led over 50 teams through his organization. He currently serves as the president of Solheim Enterprises while working part time in an intensive care unit in Portland, OR. Jeff is the proud father of Brandon and is an equally proud grandparent of his grandson, Rylee. He combines his sense of humor with stories from his travels around the world to make each seminar a fun and unforgettable experience.

### 19.75 Contact Hours | Course Length: 1,148 minutes

### Program Description

This course is a review of emergency nursing designed to assist the participant in successfully obtaining CEN certification. The course offers lectures, graphics, videos and practice questions in many of the areas that are tested on the CEN Exam. This review will provide not only a knowledge base for successfully completing the exam but also a foundation for further study as the participant works toward emergency nursing certification.

### Program Learning Outcomes

*This program prepares the learner to:*

1. Understand principles of learning and how to study based on specific learning styles.
2. Read and answer multiple-choice questions that may be encountered in the CEN Exam.
3. Describe anticipated assessment findings of patients with selected environmental, mental health, respiratory, medical, cardiovascular, neurologic, maxillofacial, ocular, obstetrical, gynecological, musculoskeletal, toxicologic, gastrointestinal and genitourinary emergencies.
4. Describe anticipated assessment findings of patients with selected communicable diseases.
5. Describe anticipated interventions for patients with selected environmental, mental health, respiratory, medical, cardiovascular, neurologic, maxillofacial, ocular, obstetrical, gynecological, musculoskeletal, toxicologic, gastrointestinal and genitourinary emergencies.
6. Describe anticipated interventions patients with selected communicable diseases.
7. Answer multiple-choice questions to the delivery of emergency nursing care.

# Topics Covered

## 1 Preparing for the Exam

36 minutes

### Module Description

The CEN Exam consists of 175 multiple-choice questions. These questions can prove challenging, and potential test-takers must be prepared to face these challenges. This module gives the participant strategies for preparing to take the exam as well as strategies to successfully navigate the questions that are likely to be encountered.

### Module Learning Outcomes

*This module prepares the learner to:*

1. Identify specific learning style.
2. Verbalize strategies to maximize learning based on identified learning style.
3. Identify resources useful to studying for the CEN Exam.
4. Verbalize the appropriate process for registering for the CEN Exam.

## 2 Mental Health Emergencies

98 minutes

### Module Description

The CEN Exam contains 11 questions related to caring for patients with mental health emergencies. This module will cover the physiology of mental health disorders as well as discuss assessment, care and evaluation of care for patients with mental health disorders. Topics will include mood disorders, thought disorders, situational crisis, the suicidal patient and the homicidal patient. The assessment, care and evaluation of care for patients with intentional ingestions, substance abuse disorders and withdrawal syndromes will also be covered.

### Module Learning Outcomes

*This module prepares the learner to:*

1. Verbalize types of mood disorders and how to care for patients who present with those orders.
2. Verbalize types of thought disorders and how to care for patients who presents with those disorders.
3. Define a situational crisis and factors that can precipitate such a crisis.
4. Identify individuals at high risk for suicide.
5. Describe manage of a patient who is either violent or potentially violent.
6. List the symptoms associated with five toxidromes (sympathomimetic, cholinergic, anticholinergic, opioid and sedative/hypnotic)
7. Identify antidotes for common ingestions.
8. List symptoms of alcohol and opioid withdrawal and how to care for patients undergoing withdrawal.

## 3 Environmental and Toxicology Emergencies and Communicable Disease

128 minutes

### Module Description

The CEN Exam has 14 questions involving environmental and toxicology emergencies and communicable diseases. Emergency nurses are also faced with patients who present with a wide range of injuries related to environmental conditions, such as heat, cold, animals, water and noxious substances. This session is designed to prepare participants to answer questions related to these conditions, including assessment, intervention and evaluation of care. Emergency nurses are also on the front line of caring for communicable diseases and must be prepared to not only care for these patients but take precautions to protect themselves and others.

### Module Learning Outcomes

*This module prepares the learner to:*

1. Describe the physiology, assessment, care and evaluation of care for patients with burn, including thermal burns, electrical burns, chemical burns, inhalation injuries, carbon monoxide poisoning and cyanide exposure.
2. Describe the physiology, assessment, care and evaluation of care for patients with temperature-related emergencies, including heat exhaustion, heat stroke, frostbite and hypothermia.
3. Apply intervention strategies to a variety of FHR monitoring strips.
4. Describe the physiology, assessment, care and evaluation of care for patients with animal injuries, including envenomation, rabies and bite wounds.
5. Describe the physiology, assessment, care and evaluation of care for patients with communicable diseases, including viral hemorrhagic fevers, tuberculosis, bacterial infections and vaccine preventable diseases.

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## 4 Cardiovascular Emergencies

141 minutes

### Module Description

The CEN Exam contains 19 questions related to cardiovascular emergencies. The content includes cardiovascular physiology, cardiovascular pharmacology, aortic emergencies, hypertensive emergencies, dysrhythmias, pericardial tamponade, endocarditis, pericarditis, blunt cardiac injury and coronary artery disease to peripheral vascular disease. This module will assist participants in understanding the various diseases that influence the cardiovascular system as well as the drugs used to treat them. Participants will be introduced to assessment of cardiovascular disorders, interventions that are appropriate for various cardiovascular disorders and methods for evaluating care given to patients with cardiovascular disorders.

### Module Learning Outcomes

*This module prepares the learner to:*

1. Define preload, afterload, cardiac output and stroke volume.
2. List treatments for bradycardic and tachycardic arrhythmias.
3. List drugs used to manage preload, afterload and contractility.
4. Describe the physiology, assessment, care and evaluation of care for hypertensive emergencies, myocardial infarctions, pericarditis, endocarditis, blunt cardiac injuries, peripheral vascular disease, pericardial tamponades and aortic dissections.
5. Describe the process of obtaining a right-sided and posterior electrocardiogram.

## 5 Medical Emergencies

113 minutes

### Module Description

A total of 14 questions on the CEN Exam are related to medical emergencies. The section on medical emergencies covers a wide variety of material, including hematological emergencies, fluid and electrolyte emergencies, endocrine disorders, infections and sepsis, allergies and anaphylaxis. The pathophysiology of various medical emergencies will be covered as well as the assessment, intervention and evaluation of care for patients who present with medical emergencies.

### Module Learning Outcomes

*This module prepares the learner to:*

1. Discuss the physiology, assessment, care and evaluation of care related to disorders of the thyroid gland (thyroid storm and myxedema coma) and the pancreas (hypoglycemia, diabetic ketoacidosis and hyperosmolar hyperglycemic syndrome).
2. Discuss the physiology, assessment, care and evaluation of care for patients with sickle-cell disease, thrombocytosis, thrombocytopenia, genetic clotting disorders and coagulopathies.
3. Verbalize care strategies for patients who are immunocompromised.
4. Discuss the physiology, assessment, care and evaluation of care-related sodium, chloride, potassium, calcium and magnesium disorders.
5. Define the inflammatory response and how it relates to sepsis.
6. List components of the sepsis resuscitation bundles.
7. Discuss the physiology, assessment, care and evaluation of care related to an allergic reaction and anaphylaxis.

## 6 Neurological Emergencies

103 minutes

### Module Description

The CEN Exam contains 18 questions related to neurological emergencies. These questions may be related to neurological trauma, acute neurological disorders or chronic neurological disorders. This session will present the pathophysiology of these diseases as well as prepare participants to answer questions related to neurological assessments, interventions for neurological disorders and evaluating the care given to patients with neurological disorders.

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### Module Learning Outcomes

*This module prepares the learner to:*

1. Describe the physiology, assessment, care and evaluation of care for a patient with increased intracranial pressure (ICP).
2. Describe the physiology, assessment, care and evaluation of care for patients with neurological trauma, including skull fractures, focal brain injuries, diffuse brain injuries and meningeal bleeding.
3. List types of spinal cord injuries.
4. Describe assessment, care and evaluation of care for patients with spinal cord injuries.
5. Define neurogenic shock.
6. Verbalize care for patients with neurogenic shock.
7. Describe the physiology, assessment, care and evaluation of care for patients with neurological disorders, including transient ischemic attacks, stroke, seizures, meningitis, headaches, myasthenia gravis, multiple sclerosis, amyotrophic lateral sclerosis (ALS) and Guillain-Barré syndrome.

## 7 Maxillofacial and Ocular Emergencies

101 minutes

### Module Description

The CEN Exam contains 11 questions related to maxillofacial and ocular emergencies. The pathophysiology of disorders related to ears, eyes, nose, mouth, throat and cranial nerves will be covered in this session as will assessment of the face and eyes, interventions for these disorders and evaluation of care for interventions related to disorders of the face and eyes.

### Module Learning Outcomes

*This module prepares the learner to:*

1. Describe assessment of various cranial nerves.
2. Describe the physiology, assessment, care and evaluation of care for cranial nerve disorders.
3. Describe the physiology, assessment, care and evaluation of care for ocular disorders, including corneal abrasion, corneal ulceration, ocular infections, retinal detachment and central retinal artery occlusion.
4. Describe the physiology, assessment, care and evaluation of care for increased intraocular pressure.
5. Describe the physiology, assessment, care and evaluation of care for maxillofacial infections, including dental abscess, peritonsillar abscess, periorbital abscess, sinusitis and Ludwig's angina.
6. Describe the physiology, assessment, care and evaluation of care for patients with disorders of the ear, including ear infections and labyrinthitis.
7. Describe the assessment, care and evaluation of care for patients with an epistaxis.
8. Describe the assessment, care and evaluation of care for patients with maxillofacial trauma.

## 8 Respiratory Emergencies

68 minutes

### Module Description

The CEN Exam has 18 questions that fit the category of respiratory emergencies. These questions may range from trauma to the respiratory system, chronic respiratory disorders or acute respiratory problems. This session will cover the pathophysiology of respiratory disorders, respiratory system assessments, interventions for respiratory disorders and evaluating the care given to patients with respiratory problems.

### Module Learning Outcomes

*This module prepares the learner to:*

1. Analyze a blood gas abnormality by looking at blood gas values.
2. Describe the physiology, assessment, care and evaluation of care related to respiratory disorders, including respiratory infections, chronic obstructive pulmonary diseases, pulmonary hypertension, reactive airway disease, airway obstructions, pulmonary emboli and pulmonary edema.
3. Describe the physiology, assessment care and evaluation of care related to pulmonary trauma, including pneumothorax, hemothorax and diaphragmatic rupture.

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## 9 Gastrointestinal, Genitourinary, Obstetrical and Gynecological Emergencies

131 minutes

### Module Description

The CEN Exam contains 18 questions involving gastrointestinal, gynecological, obstetrical and genitourinary emergencies. This session will discuss disorders and emergencies involving all of these body systems as well as the assessment, interventions and evaluation of care for these disorders and emergencies.

### Module Learning Outcomes

*This module prepares the learner to:*

1. Recognize symptoms and treatments for gastrointestinal bleeding, pancreatitis, peritonitis, liver disorders, appendicitis, diverticulitis, bowel obstructions and conditions that lead to severe vomiting.
2. Recognize symptoms and treatments for genitourinary infections, priapism, testicular torsion and a fractured penis.
3. Recognize symptoms and treatments for an ovarian cyst, ovarian torsion, dysfunctional uterine bleeding and pelvic inflammatory disease.
4. Recognize symptoms and treatments for hyperemesis gravidarum, vaginal bleeding during pregnancy, ectopic pregnancies, hypertension during pregnancy, placenta previa, placenta abruption, emergency delivery, neonatal resuscitation and postnatal care.
5. Discuss types of injuries related to the gastrointestinal and genitourinary trauma and how to provide care to patients experiencing these injuries.
6. Relate facts related to traumatic injuries sustained during pregnancy.

## 10 Musculoskeletal and Wound Emergencies

75 minutes

### Module Description

The CEN Exam contains 13 questions related to musculoskeletal and wound emergencies. These disorders can range from simple lacerations and contusions to sprains, strains, fractures and amputations. Complications, such as osteomyelitis, infections and compartment syndrome, will also be covered. Topics will range from pathophysiology to assessment to interventions to evaluation of care related to orthopedic and wound disorders..

### Module Learning Outcomes

*This module prepares the learner to:*

1. Define common musculoskeletal injuries.
2. Verbalize discharge instructions for patients with musculoskeletal and wound emergencies.
3. Describe the process for assessment peripheral nerves following a musculoskeletal or wound emergency.
4. Describe the physiology, assessment, care and evaluation of care for patients with dislocations, subluxations and fractures.
5. Describe the physiology, assessment, care and evaluation of care for patients with complications associated with musculoskeletal injuries, including compartment syndrome, blood loss and open fractures.
6. Verbalize wound care principles.

## 12 Professional Issues

154 minutes

### Module Description

The CEN Exam has 14 questions that fit the category of professional issues. Emergency nurses are faced with challenges that extend beyond physical illnesses. They must deal with the assessment and treatment of pain, have knowledge of various legal and ethical issues and be prepared for unusual situations, such as disasters and transfers. This section will present the theory for professional issues that may be encountered on the CEN Exam..

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### **Module Learning Outcomes**

*This module prepares the learner to:*

1. Recognize and manage ethical dilemmas.
2. Recognize the symptoms and management of the impaired nurse.
3. Understand ways to reduce workplace violence.
4. List the symptoms and management of post-traumatic stress disorder (PTSD), compassion fatigue and burnout.
5. Define "just culture."
6. Discuss end-of-life care.
7. Verbalize the process of collecting forensic evidence in the emergency department.
8. Differentiate between patient safety, patient satisfaction and risk management.
9. Define legal issues involved in providing emergency care such as COBRA/EMTALA, HIPPA and consent for care.
10. List ways to increase safety in transitions of care.
11. List symptoms of abuse as well as human trafficking.
12. Define terms associated with gender equity.
13. List the four stages of disaster management.
14. List the four steps of performance improvement.

# Accreditation

## RN/LPN/LVN/Other: 19.75 Contact Hours

MED-ED, Inc. is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation (**ANCC**).

MED-ED, Inc. is an approved provider by the following State Boards of Nursing: **Florida**/FBN 50-1286, **Iowa**/296, **California** #CEP10453.

If your profession is not listed, we suggest contacting your board to determine your continuing education requirements and ask about reciprocal approval. Many boards will approve this seminar based on the accreditation of the boards listed here.

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