

Emergency Medicine CME

Total AAPA Category 1 CME Credits: 32.5

A Case-Based Approach to Acute Coronary Syndrome

AAPA Category 1 CME Credits: 1

Description: This session covers the topic of acute coronary syndrome and the diagnoses that fall within that spectrum through a series of cases. The session outlines the approach to the patient, the diagnostic methods and criteria for the conditions, as well as management of acute coronary syndrome. The cases are presented vignette style with history, physical exam, diagnostic studies, differential diagnoses, and management to be included.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Compare and contrast the diagnoses on the acute coronary syndrome spectrum
 - Describe the appropriate evaluation for a patient with suspected acute coronary syndrome
 - Discuss the treatment plan for a patient unstable angina, NSTEMI or STEMI
 - Given a clinical scenario, identify a non-ST elevation acute coronary syndrome patient that would require more aggressive management
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A Review of Intracranial Trauma by Case Studies

AAPA Category 1 CME Credits: 1

Description: A patient stating, I have a headache this BIG, may be part of the patient's presentation for a traumatic head injury. In other instances, the patient is not alert, and much less conversant. This session provides patient cases to explore different mechanisms of injury such as vehicle collision, football tackle, or gunshot wound. Key features of the patients' clinical presentation are compared. Radiographic findings of a variety of intracranial hemorrhages are evaluated. Compilation of the case studies with the radiographic findings in order to delve deeper into treatment options will summarize the session. This will be beneficial to PAs as a review for certification as well as those in the practice of caring for these patients in the ER setting.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Compare patient cases for mechanism of injury and clinical presentation
 - Differentiate intracranial trauma radiographic findings, including subdural, epidural, subarachnoid, and intraparenchymal hemorrhage
 - Summarize head trauma key clinical and radiographic features with brief survey of management options
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Acute Kidney Injury: Kidneys Gone Bad

AAPA Category 1 CME Credits: 1

Description: This session is an introduction to acute kidney injury (AKI) with an emphasis on what defines AKI; lab changes to expect as well as physical exam findings consistent with AKI; likely etiologies and the acute and long term implications that are associated with the diagnosis. It includes discussion of when to treat and what treatment modalities are available as well as how to choose the most appropriate therapy. The session includes an overview of bio markers used to identify AKI as well as those implemented in predicting the probability of developing AKI.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Define Acute Kidney Injury (AKI)
 - Identify causes of AKI - common and uncommon, community acquired vs. hospital acquired
 - Review testing required to identify AKI including use of predictive testing modalities
 - Discuss the treatment of AKI with objective use of which modalities to use and when
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Advanced Diagnostic Point-of-Care Ultrasound

AAPA Category 1 CME Credits: 0.75

Description: This case-based session provides a detailed discussion regarding the clinical utility of diagnostic Point-of-Care Ultrasound (POCUS). It contains a thorough discussion of image acquisition, indications, and limitations of POCUS for several organ systems. Additionally, it provides an in-depth look at the current literature pertaining to the most common uses of diagnostic POCUS. By comparing to current standard of care, this session outlines the positive impact of POCUS implementation can have on diagnostic evaluation, prognostication, and treatment decisions for many common medical conditions.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Review image acquisition, indications, and limitations of Point-of-Care Ultrasound (POCUS) of the lungs and kidneys
 - Describe how diagnostic POCUS can enhance upon current standard of care for evaluation, diagnosis, and treatment of common clinical conditions
 - Provide an in-depth review of current literature pertaining to POCUS as it relates to common clinical conditions
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Anaphylaxis: Early Recognition and Treatment

AAPA Category 1 CME Credits: 1

Description: This session addresses the rapid recognition of the anaphylactic patient including the myriad of signs that may show up and indicate an anaphylactic process. It also covers the initial and late-phase treatment of the anaphylactic patient, the long term follow up, and the prevention of future anaphylactic events.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Recognize the early signs and symptoms of an anaphylactic reaction
 - Describe the early treatment options as well as the late-phase and biphasic treatment of an anaphylactic reaction
 - Discuss the long term follow up of the anaphylactic patient as well as prevention measures that can help avoid a future anaphylactic event
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Aneurysms: Diagnosis and Management

AAPA Category 1 CME Credits: 1

Description: An aneurysm is defined as a dilatation of an artery of 50 percent or greater of the normal diameter of the vessel. Aneurysms can develop in any artery in the body, however, most commonly occur in the abdominal aorta. Risk factors for aneurysm development include male gender, age, family history, atherosclerosis, history of smoking, presence of other large aneurysms, and some connective tissue diseases. As an aneurysm grows, the risk of rupture increases. This session covers the pathophysiology of aneurysm development, discuss risk factors for development, and review the indications for surveillance and repair as set forth by the Society of Vascular Surgery. Open and endovascular approach to repair is also highlighted.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Define and discuss pathophysiology of aneurysmal disease
 - Identify risk factors for development of aneurysms
 - Recognize when to refer patients with aneurysms to a vascular surgeon and recommendations for surveillance
 - Identify indications for surgical repair of aneurysms
 - Recognize methods of surgical repair to include open and endovascular approaches
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Approaching Trauma: A Review of ATLS and Trauma Cases

AAPA Category 1 CME Credits: 1

Description: This session provides an overview of Advanced Trauma Life Support (ATLS), as well as a case-driven review of the initial management of trauma patients. It highlights the principles in both the Primary Survey and Secondary Survey of a trauma patient as well as adjuncts to the Primary Survey. The cases include pauses to clinical decision making. This session also covers the recent changes to the ATLS protocol with the new 10th edition, which new participants in ATLS will be required to know this information. Major topics of discussion within the cases will be traumatic brain injury, initial airway management, shock, thoracic trauma, abdominal trauma, musculoskeletal injury, and transfer to definitive care.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Describe the epidemiology of trauma in the United States
 - Review the principles of Advanced Trauma Life Support (ATLS) and review the changes from the new 10th edition of ATLS
 - Describe adjunct imaging/diagnostic modalities used in ATLS
 - Define Primary Survey and Secondary Survey in the initial evaluation of a trauma patient
 - Recognize the principles of ATLS using a case-based approach
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Bedside Diagnostic Ultrasound

AAPA Category 1 CME Credits: 0.75

Description: PAs practicing in the emergency department, hospital medicine, critical care medicine, and many other specialties evaluate and stabilize critically-ill patients. Bedside ultrasound is an effective adjunct in the evaluation of these patients, and an incredibly useful tool in resuscitation. This session provides an introduction to the basic principles of bedside ultrasound, the mechanics of how it should be used, and how it can be incorporated into clinical practice.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Explain the indications for the use of bedside ultrasonography
 - Describe the basic mechanics of ultrasound
 - Define the components of an eFAST exam and limited cardiac ultrasound, and how they can be incorporated into clinical practice
 - Discuss basic principles of lung ultrasound, and learn how to diagnose a pneumothorax using ultrasound
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Beyond the Shakes: Alcohol Use Disorder

AAPA Category 1 CME Credits: 1

Description: Alcohol use disorder remains a problem for a large segment of the U.S. population, both in direct effects, such as motor vehicle accidents, as well as increasing the risk of other problems like liver disease and cancer. It is hoped that with the increased funding for the opioid epidemic there will be improved access to treatments for substance use disorders in general. This session covers one of the most commonly abused substances and how to treat patients who are at risk of or actively undergoing withdrawal from alcohol.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Explore the options for screening for alcohol use disorder and the risk of withdrawal
 - Discuss outpatient treatment options
 - Examine inpatient detoxification regimens, highlighting the importance of aggressive prophylaxis
 - Understand the medications to assist with sobriety, both on and off label
 - Review available psychotherapeutic treatment modalities
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Breakthrough Seizures, Clusters and Emergencies: Can These Be Prevented or Stopped and How?

AAPA Category 1 CME Credits: 0.75

Description: Breakthrough seizures and seizure clusters are a common problem for people with epilepsy. Left untreated, these can lead to seizure emergencies, one of the most common causes of death in people with epilepsy. Yet there is no consensus definition of breakthrough seizures or clusters, or common terms to describe these phenomena. New guidelines define convulsive status epilepticus more clearly and present an evidence-based treatment algorithm for children and adults. This session addresses the latest best practices for recognizing and treating breakthrough seizures, clusters and seizure emergencies for advanced practice providers regardless of practice settings. Strategies to enhance dissemination and adoption of quality care and self-management approaches for seizure emergencies are also highlighted.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Recognize status epilepticus, cluster seizures, and other potential seizure emergencies
 - Identify the seizure medications and steps recommended for managing status epilepticus and emerging therapies for cluster seizures
 - Implement seizure response plans in care of persons with seizures and epilepsy
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Concussion: A Comprehensive Update

AAPA Category 1 CME Credits: 1

Description: Concussion medicine has received significant attention over the past decade. This increased attention has resulted in public misunderstanding and confusion regarding the injury. Many clinicians struggle to find reliable information or recommendations on the management of these injuries. Comprehensive concussion management should include baseline evaluation, sideline evaluation in the event of a suspected concussion, vestibular and balance testing, cognitive and behavioral assessment, and office follow-up and management. Chronic traumatic encephalopathy (CTE) has also received increased media attention, adding further confusion and misunderstanding regarding the association with CTE and repetitive head impact. Increased awareness is necessary for clinicians to accurately recognize chronic sequelae of concussion and repetitive head impacts leading to evidence-based recommendations that will increase the likelihood of returning the concussed individual to his or her baseline. This session provides a comprehensive update on concussions.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Accurately and appropriately diagnose concussion
 - Institute appropriate and clinically useful diagnostic tests when indicated
 - Provide state-of-the-art management of concussed athletes and individuals
 - Make safe and appropriate return to play, school, work, and life decisions
 - Recognize subtypes of concussion: sleep, behavioral, neuro-ophthalmologic, balance and vertigo, headache and migraine, and cervicogenic disturbances
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Emergency and Disaster Management: Needs Assessment Implementation

AAPA Category 1 CME Credits: 1

Description: PAs can add value in providing expert analysis when providing emergency and disaster management solutions and assisting in the UN and WHO 2030 Initiative for Sustainable Development Goals and the Health Care Workforce. Collaborative efforts at local, national, and international levels are imperative in the success of the implementation of plans and initiatives. This session covers implementation of emergency and disaster management needs assessment.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Define needs assessment
- Define the PA's role in a needs assessment
- Define disaster and emergency management

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- Define the WHO and UN 2030 agenda on Health Care Workforce and Sustainable Development Goals
 - Educate on collaborative efforts and resources at local, national, and international levels
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Emerging Drugs of Misuse and their Public Health Implications

AAPA Category 1 CME Credits: 1

Description: This session covers some emerging drugs of misuse and their public health implications. Substance use, misuse, and abuse has become a leading public health topic in the U.S. The American Public Health Association estimates that 15,000 Americans died from prescription drug overdose alone in 2015. Substance misuse also harms our economy. The National Institute on Drug Abuse estimates that substance misuse and abuse costs the U.S. \$232 billion in healthcare and \$740 billion overall expenditures to the economy. One of the Healthy People 2020 goal is to 'Reduce substance abuse to protect the health, safety and quality of life for all, especially children.' Additionally, this session is not meant to serve as an exhaustive summary of all substances of abuse, such as alcohol, marijuana, and tobacco, but highlights some of the emerging drugs of abuse; it focuses on opioids and synthetic opioids, synthetic cannabinoids, synthetic cathinones, kratom, and flaka.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Discuss the public health implications of emerging drugs of misuse including overdose and economical burden
 - Outline physiologic effects of opiates with regard to addiction
 - Outline physiologic effects of synthetic cathinones and their emergence as common drugs of abuse
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Evaluation and Treatment of the Red Eye

AAPA Category 1 CME Credits: 1

Description: The primary and urgent care PA can anticipate a host of ocular complaints on a regular basis, very often involving some version of the red eye. Given the spectrum of etiologies and clinical implications, this session is intended to familiarize participants with the most common presentations. Sources range from basic mechanical stressors to minor inflammatory changes to serious infectious causes. A brief consideration of anatomy lends to a problem specific exam and narrow differential diagnosis. Most of the dialogue will work through basic questions as to 'what's the red', 'why is it red' and 'how bad is it' per each red eye complaint. With successful prompt management and minimal referrals, participants should aim to optimize patient ocular care in the primary setting.

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Educational Objectives

At the conclusion of this session, participants should be able to:

- Execute a problem-focused examination of the red eye
 - Differentiate among a host of red eye pathologies
 - Initiate proper plan of care and/or referral for prompt management
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Evidence-Based Approach to Pulmonary Thromboembolism

AAPA Category 1 CME Credits: 1

Description: This session is designed to give an evidence-based approach to the diagnosis and management of PTE using landmark studies and current practicing changing trials. The bulk of the session revolves around clinical decision instruments to help guide PAs through the identification and workup of patients with suspected PTE to be better stewards of resources. By identifying low-risk patients, PAs can help coordinate outpatient management and treatment of PTE without unnecessary admissions. The session also includes a comprehensive algorithm to guide PAs through the pre-test probability, diagnostic study findings, risk stratification, and management of patients with PTE.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Discuss landmark and practice changing publications that have led to current recommendations in PTE management
 - Evaluate pre-test probability decision tools
 - Compare diagnostic modalities
 - Appraise current literature regarding treatment
 - Develop comprehensive decision algorithm
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Fundamentals of Musculoskeletal Foot and Ankle Pathologies

AAPA Category 1 CME Credits: 1

Description: This session outlines common musculoskeletal pathologies of the foot and ankle for the non-orthopedic provider. The following pathologies are covered: plantar fasciitis, Lisfranc injury, Achilles tendonopathy, ankle sprain, high ankle sprain, and degenerative joint disease/osteoarthritis. The basics of foot and ankle evaluation and indications for surgical intervention is also highlighted. This session is a good refresher for primary care practitioners and those in urgent care or emergency medicine settings.

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Educational Objectives

At the conclusion of this session, participants should be able to:

- Recognize the clinical features of common acute foot and ankle injuries that may present to primary care (Lisfranc injury, high/standard ankle sprains)
 - Recognize the clinical features of common overuse/degenerative syndromes of the foot/ankle (plantar fasciitis, Achilles tendonopathy, osteoarthritis)
 - Describe the appropriate imaging modality that would aid in diagnosis of common foot and ankle pathologies
 - Initiate proper treatment plans (conservative vs. surgical) in the patient presenting with foot and ankle pathology
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Hope for the Best, Prepare for the Worst: Mass Casualty Response, Triage, and Novel Threats

AAPA Category 1 CME Credits: 1

Description: Mass Casualty Incidents (MCIs) by definition overwhelm the available medical resources, preventing clinicians from optimally caring for each individual patient; they are unexpected and often chaotic. Preparing for MCIs includes planning, rehearsing, and cultivating a readiness mindset. Many organizations look to physician/RN/EMT leadership in an MCI. However, PAs can and should be an integral part of the team, and should be considered as ideal candidates for triage/stabilization, and team leadership roles, based on individual expertise. This session provides a foundation for PAs in MCI preparedness. It includes lessons learned from past MCIs, reviews the fundamentals of triage, and outlines key differences in managing mass casualty incidents involving novel threats such as chemical and radiological contaminants. Additional resources for individuals desiring further study or needing to conduct planning at their institution is recommended. Note: This session is not eligible for AAPA Category 1 Self-Assessment CME credit.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Distinguish between a Multiple Casualty Incident and a Mass Casualty Incident (MCI) and recognize situations where MCIs are more likely to occur
 - Describe how to triage patients using SALT and START, including the categories of triage and the process of evaluating individual patients
 - Identify the optimal type of healthcare providers and equipment needed to stabilize patients in each triage category
 - Discuss key decontamination, triage, and treatment considerations for patients exposed to chemical hazards
 - Discuss key decontamination, triage, and treatment considerations for patients exposed to radiation hazards
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Medical Management of Sexually Transmitted Infections

AAPA Category 1 CME Credits: 0.75

Description: Sexually transmitted disease (STD) diagnoses have increased every year since 2013, with the number of new STD diagnoses the highest ever in 2017, according to the CDC. There were 2.3 million cases of chlamydia, gonorrhea, and syphilis diagnosed in 2017. The CDC reported that chlamydia remained the most common condition reported to the CDC, with more than 1.7 million cases diagnosed in 2017, with a little under half among women ages 15 to 24. A 24.9% increase in syphilis cases was observed among women between 2016 and 2017 and the report also highlighted an alarming rate of congenital syphilis cases among infants in the United States. According to the agency, the rate of infection in infants has increased by 153.3% since 2013. This is the highest number of congenital syphilis cases reported in 20 years. This report highlights the need for STD screening to be part of 'routine care' and that providers need to know the current STD treatment guideline recommendations. This session outlines the medical management of STIs.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Recognize the clinical features of common STIs in the U.S.
 - Interpret STI laboratory results
 - Describe the current treatment guidelines for STIs in the U.S.
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Not Just Life Support: An Update on Respiratory Failure in 2019

AAPA Category 1 CME Credits: 1

Description: Over the past few years, much has been published in the literature regarding the treatment of respiratory failure with less invasive modalities than invasive mechanical ventilation. PAs in the ED, inpatient and ICU settings should be familiar with the evidence surrounding high flow nasal cannula, bilevel positive airway pressure (BiPAP), as well as the latest recommendations regarding airway management and mechanical ventilation to optimize their care of the patient with respiratory failure. PAs also play a pivotal role in goals of care conversations with patients and their surrogates. This case-based session covers the care of the whole patient with respiratory failure.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Initiate and manage high flow nasal cannula therapy for appropriate patients, including appropriate ARDS patients in effort to avoid intubation
- Utilize bilevel positive airway pressure (BiPAP) for patients with acute respiratory failure, including a review of the evidence associated with ARDS and BiPAP
- Participate in evidence-based airway management as a 'crew' member

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- Choose basic ventilator settings based on the evidence for best practice in ARDS
 - Prevent extubation failure by using high flow nasal cannula or bilevel positive airway pressure for appropriate patients
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Parents, Interviewing, Injuries: Oh My! Demystifying the Initial Investigation and Management of Suspected Child Sexual Abuse

AAPA Category 1 CME Credits: 1

Description: PAs in emergency medicine, urgent care, and primary care frequently encounter possible cases of child sexual abuse; cases that can be difficult to navigate personally, professionally, and legally. This session prepares you to engage parents and children in a productive, comprehensive manner, document your findings in a legally sound way, and address common pitfalls that can make this encounter more stressful and fraught for both the provider and the family.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Discuss child sexual abuse, including common and less common presentations and navigating the forensic medical examination for children
 - Recognize techniques that can be used to help encourage parents to be an active role in the investigation
 - Recall some common techniques for the adequate forensic interview of children without compromising the legal integrity of the investigation
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PCGS: Avoiding the Slippery Slope: Managing Falls in Older Adults

AAPA Category 1 CME Credits: 1

Description: This session is part of Primary Care Geriatrics Symposium (PCGS), suggested by Geriatric Medicine PAs. As primary care providers, PAs are in the forefront of health maintenance for older adults. Falls are a leading cause of injury, death and long term care placement for seniors, thus CMS mandates fall screening in Medicare wellness visits. There are screening tools which require minutes to complete. This session provides in-depth assessment and preventative strategies for falls in older adults.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Describe the impact accidental falls have on older adults
- Recognize intrinsic and extrinsic factors that contribute to falls
- Describe at least one screening tool
- List common medications that may contribute to fall risk

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Penis Problems: Up, Down, and All Around

AAPA Category 1 CME Credits: 1

Description: This session identifies specific penile problems PAs might encounter in a variety of specialties. To many medical providers, the penis is just a body part, but for a patient, it is their manhood. Guiding a patient through identification of a diagnosis, treatment options, and counseling through the process can establish trust and compliance. The session covers a variety of penis problems including erectile dysfunction, peyronies, priapism, penile trauma and emergencies, penile pain, premature ejaculation, and delayed ejaculation. Understanding normal function and anatomy will help providers comprehend when things become different and are not functioning optimally.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Identify normal penile function and anatomy
 - List three common penile complaints patients seek medical attention
 - Implement sexual health counseling in the treatment of penile dysfunction diagnoses
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Pump, then Tank: An Approach to Undifferentiated Shock

AAPA Category 1 CME Credits: 1

Description: A patient is crashing. The monitor screeches and flashes red while the patient turns a pale shade of gray. Every second that passes means the patient's organs are deprived of oxygen. Time is everything. This session covers physiologic rationale, scientific literature, and experience in critical care resuscitation.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Create a simplified, working framework through which to view undifferentiated shock
 - Discuss the early diagnostic steps for assessing undifferentiated shock
 - Establish the initial steps in the management of undifferentiated shock
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Rapid Response: The Approach to the Acutely Ill Patient

AAPA Category 1 CME Credits: 0.75

Description: PAs are faced with acutely ill patients on a regular basis whether working in the ED, inpatient, or outpatient settings. The ability to evaluate and make immediate management decisions is

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crucial. This session develops a systematic approach for the provider to deal with these difficult situations.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Develop a systematic approach to the management of acute respiratory distress, hypotension, and alteration in mental status
 - Discuss quickly reversible conditions
 - Review institutional resources, the team mentality, and delegation of duties
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Seeing 20/20 How to Identify Sight-threatening Conditions

AAPA Category 1 CME Credits: 1

Description: Prompt recognition and appropriate treatment of ocular urgencies is essential in the primary care setting when preservation of vision may depend on timely management. A thorough history and examination coupled with the recognition of key clinical findings can help primary care PAs make sight preserving decisions. Quickly evaluating, diagnosing, and managing sight-threatening conditions is an important skill set for PAs to possess to provide up-to-date standard of care. In this session a step wise evidence-based approach for evaluation of possible sight-threatening conditions is covered followed by a rapid-fire diagnostic challenge in the form of clinical vignettes.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Evaluate clinical vignettes for pertinent positive and negative ocular information
 - Recognize sight-threatening historical and clinical findings
 - Differentiate between common urgent versus non-urgent ocular diagnoses
 - Formulate management plans for both urgent and non-urgent ocular diagnoses
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Sepsis and Septic Shock

AAPA Category 1 CME Credits: 1

Description: Although sepsis outcomes have improved in recent years, overall morbidity and mortality remain high. Sepsis is common but is frequently unrecognized by clinicians at initial presentation. This leads to delay in treatment and poor outcomes. The Third International Consensus Definitions for Sepsis and Septic Shock, otherwise known as Sepsis-3, has updated and simplified definitions, focusing clinical criteria on organ dysfunction. These simplified definitions and diagnostic criteria are easy to apply in any setting and gives providers the tools to quickly recognize sepsis and start treatment immediately. This session focuses on the early recognition of sepsis and management strategies to decrease mortality.

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Educational Objectives

At the conclusion of this session, participants should be able to:

- Define sepsis and septic shock
 - Discuss the use of the Sequential Organ Failure Assessment score in identifying patients with sepsis
 - Demonstrate effective aggressive resuscitation, early antibiotics, source control and other strategies to improve mortality
 - Utilize procalcitonin and lactic acid levels in managing sepsis
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Staying Afloat: An Update on Intravenous Fluid Management

AAPA Category 1 CME Credits: 1

Description: Intravenous (IV) fluids are among the most frequently prescribed interventions. Despite being a critical component of the care of acutely ill patients, PAs often lack confidence in their knowledge of IV fluids, their indications, and how to best administer them. In a clinically relevant manner, this session reviews the different types of IV fluids and discuss their various indications. In the last year, two practice-changing clinical trials were published on fluid selection in acutely ill patients. The session analyzes these trials, extracting the need-to-know components, and discuss the implications for clinical practice using commonly encountered, challenging patient scenarios to illustrate appropriate fluid selection. IV fluids are frequently used and receive intense scrutiny as part of guidelines and care bundles; this session will demystify IV fluid selection and allow clinicians to utilize them with confidence.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Identify the different types of intravenous (IV) fluids and define the term balanced crystalloid
 - Determine the appropriate fluid type, volume, and rate for resuscitation, supplementation, and maintenance IV fluid administration
 - Outline the potential benefits and risks of administering a balanced crystalloid versus normal saline in critically ill patients
 - Outline the potential benefits and risks of administering a balanced crystalloid versus normal saline in noncritically ill patients
 - Discuss the implications of the SALT-ED and SMART trials as it pertains to clinical practice
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Stroke Continuum of Care: From Recognition and Diagnosis to Post-acute Treatment, Management, and Prevention

AAPA Category 1 CME Credits: 1

Description: Stroke is a common, treatable disorder. PAs will frequently evaluate people who are having, have had, or will have a stroke. Stroke appears in many forms. Guidelines have evolved and changed as recently as 2018. This session includes the most up-to-date recommendations. It helps participants use clinical skills to accurately localize where a stroke or TIA has occurred, determine mechanisms, provide treatment and prescribe preventative therapies to your patients.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Accurately and appropriately recognize and classify stroke as ischemic or hemorrhagic
 - Identify the types and time limitations for acute ischemic/hemorrhagic stroke treatment options
 - Describe the general treatments that are available for acute stroke
 - Provide best clinical practices in the rehabilitative care of adults recovering from stroke
 - Provide best clinical practices of primary and secondary stroke prevention
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Syncope Assessments in the Office, Emergency Department, or Hospital: Effective, Efficient, and Economic Evaluation

AAPA Category 1 CME Credits: 1

Description: Syncope and other causes of transient loss of consciousness (t-LOC) are seen commonly in the emergency department as well as outpatient and inpatient settings. While benign etiologies for syncope occur commonly, clinicians must accurately and efficiently identify when a patient presenting with syncope bears higher risk for morbidity and mortality. Current guidelines and risk stratification tools can assist clinicians in making appropriate and safe medical decisions in their patients presenting with syncope or t-LOC. This session uses a case-based interactive discussion to permit clinicians to effectively and safely triage and evaluate patients presenting after a syncopal episode.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Use H and P findings and clinical decision rules to risk stratify and triage patients with transient loss of consciousness (t-LOC) and syncope
 - Employ prudent evidence-based test-ordering decisions for syncope patients based on clinical findings
 - Accurately estimate pulmonary embolism (PE) risk in syncope, and implement a structured PE evaluation (when indicated)
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The ABC's of ABGs

AAPA Category 1 CME Credits: 1

Description: The interpretation of arterial blood gases frequently causes anxiety and confusion among many clinicians. Providers get bogged down trying to figure out how something metabolic is somehow compensating for something respiratory and miss an obvious disorder. A systematic approach for analyzing ABG's is crucial for the practicing PA. This session is not a biochemistry lesson but rather a practical look at blood gas interpretation in the clinical setting.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Develop a systematic approach to arterial blood gas interpretation
 - Recognize primary metabolic and respiratory disorders
 - Use formulas to determine the presence of secondary disorders
 - Calculate and apply the Alveolar-arterial gradient
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The Little Engine that Could Not Even: A Cautionary Tale of Right Ventricular Failure

AAPA Category 1 CME Credits: 1

Description: This lecture will be an interactive discussion of the recognition and management strategies for acute right ventricular failure. The past few years have seen an increased understanding and focus on specific management of right-sided heart failure, and its significant contribution to overall cardiac performance. This is especially important given the current recommendations of fluid resuscitation in patients suspected of developing septic shock. This session will briefly touch on specific anatomic considerations, delve into special physiologic considerations (differentiating from the Left Ventricle, ventricular interdependence, etc.), diagnostic tools (especially Point of Care Ultrasound), and then address strategies for both prevention and treatment of acute isolated RV failure or biventricular failure, including fluid/diuretics, inotropic/vasoactive pharmacology, and finally initiation of temporary and durable mechanical circulatory support.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Compare and contrast the basic anatomic and physiologic features of the right and left ventricles
- Describe the concept of ventricular interdependence and how right-sided heart failure can immediately impact total cardiac performance
- Identify the most common causes of acute right ventricular failure (infarct, volume overload, LV failure, valvular disorders, PHTN/PE, etc.)

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- Demonstrate knowledge of the role of diagnostics, and interpret cardiac point-of-care ultrasound images (e.g. IVC diameter, TAPSE) to assess RV function
 - Explain the role of volume optimization, vasoactive medicines (inotropes/pressors) and mechanical circulatory support in the management of RV failure
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To CT or not to CT? When Acute Abdominal Pain is a Surgical Emergency

AAPA Category 1 CME Credits: 1

Description: Acute abdominal pain can be a complex condition to evaluate, with multiple organ systems and potential causes of pain. This lecture will provide a review of the literature on imaging and labs in the context of history and exam findings, to enable timely, cost-effective evaluation of the patient presenting with acute abdominal pain. The content will primarily be presented in a case-study format, and focus on providing an expedited evaluation of the patient with a surgical emergency.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Describe features that are concerning for a surgical abdomen in the patient with acute abdominal pain
 - Identify which patients would benefit from x-ray vs ultrasound versus CT as their initial imaging study
 - Select the ideal antibiotics for the suspected diagnosis, and identify which patients do not require emergent antibiotics
 - Recognize features of unstable or imminently unstable patients presenting with acute abdominal pain
 - Discuss initial stabilization measures for patients with acute abdominal pain, by suspected diagnosis
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Trauma Management in Wilderness/Austere Environments

AAPA Category 1 CME Credits: 1

Description: There are specific and important factors in the assessment, stabilization, resuscitation, and monitoring of trauma patients in wilderness/austere environments. The standard ATLS protocols are important and helpful, but special consideration must be made in the face of limited diagnostic and therapeutic resources, prolonged or difficult evacuation/transport, and challenging or dangerous environmental factors. PAs who are involved in remote medical care, disaster medicine, and global health will benefit from an enhanced understanding of some of the differences in the assessment and treatment of trauma patients in wilderness/austere environments. This lecture will review the different types of trauma algorithms (ATLS, MARCH, AAABBBCCC), their functionality and limitations. It will also

Emergency Medicine CME

Total AAPA Category 1 CME Credits: 32.5

emphasize the importance of rapid, aggressive hemorrhage control and why this is even more critical in limited resource environments.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Describe the basic aspects of trauma assessment in the wilderness/austere environment
 - Recognize the basic tenants of advanced hemorrhage control in the wilderness/austere environment
 - Describe evacuation and ongoing assessment considerations for trauma patients in the wilderness/austere environment
 - Describe key differences in assessment and treatment of trauma patients in the wilderness/austere environment
 - Explain critical concepts in the stabilization/resuscitation of trauma patients in the wilderness/austere environment
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USS: Is There a Fracture? Orthopaedic Evaluation and Treatment of Polytrauma Patients

AAPA Category 1 CME Credits: 0.75

Description: This session is part of the Uniformed Services Symposium. Injuries and complications define the nature of polytrauma patients. The multidisciplinary trauma team is comprised of many subspecialties. Orthopaedics play a major role in restoring stabilization of pelvic injuries, long bone fractures, and other emergency care of extremity trauma. The team has expertise in many areas of medical, legal administrative and rehabilitation to provide the optimal outcome for the trauma patient. This session covers orthopaedic management of trauma patients.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Describe the early orthopaedic management of polytrauma patients
 - Describe the principles of primary and secondary surveys with a multidisciplinary approach in treating polytrauma patients
 - Recognize the specific orthopaedic management of polytrauma patients including orthopaedic emergencies
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