Mayo Clinic
High Risk Emergency Medicine:
Conundrums in the ED

AUGUST 6 – 9, 2003
The Fairmont Chateau Whistler
Whistler, British Columbia, Canada

Pre-Conference Airway Workshop - August 5, 2003

Course Directors:
Wyatt W. Decker, MD and Deepi G. Goyal, MD

Sponsor:
Mayo Clinic Department of Emergency Medicine and
Mayo School of Continuing Medical Education
Emergency Medicine, by its very nature, is a high-risk specialty. This four-day course will offer in-depth discussions of selected high-risk topics in Emergency Medicine. The course will utilize case-based sessions as well as an audience response system to make the sessions as interactive as possible.

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

• Discuss the differential diagnosis of common neonatal complaints presenting to the emergency department and develop an approach towards their management.
• Describe the evidence supporting or refuting traditional practices in pediatric emergency medicine.
• Describe signs of systemic inflammatory response syndrome (SIRS) and review early interventions in treating SIRS and sepsis.
• Identify appropriate vasoactive agents for the management of emergency department patients.
• Describe those myths about community-acquired pneumonia perpetuated by practice habit and discuss the evidence presented against those myths.
• Discuss the most recent acute COPD management recommendations and the evidence behind them.
• Discuss the importance of risk stratification in pediatric and adult patients with syncope and list historical and laboratory features that allow one to stratify these patients.
• Discuss the evidence behind various treatment options for patients with acute myocardial infarction and develop a treatment strategy based on the setting in which they practice.
• Determine whether current evidence supports or refutes the utility of tPA for acute stroke.
• Describe an approach toward identifying interactions that new or unfamiliar drugs may have with a patient’s other medications.
• Recognize specific illnesses related to the use of intravenous drugs in patients with fever, bone or joint pain, back pain, dyspnea, or skin lesions.
• Identify potential complications of obstetrical delivery and describe the appropriate treatments of these.
• Describe ECG findings that can help differentiate between malignant arrhythmias and their mimics as well as clues that help distinguish between pericarditis and acute ischemia.
• Develop a rational treatment protocol for patients with congestive heart failure.
• Identify two subtle EKG findings that help identify the presence of acute cardiac ischemia.
• Describe a logical evaluation strategy for patients presenting with a complaint of weakness.
• Describe the preferred agents for several commonly encountered indications for pediatric sedation.
• Discuss initial evaluation and management strategies for the cyanotic pediatric patient.
• Recite an algorithmic approach to interpreting computed tomography of the head.
• Recognize selected high-risk ingestions that despite a benign appearance may result in significant morbidity or mortality.
• Describe the pathophysiology of CO-poisoning and the risks and potential benefits of HBO therapy.

INTENDED AUDIENCE

This program is designed for emergency physicians, primary care physicians, midlevel providers and others with an interest in high-risk topics in emergency medicine.
DATE AND LOCATION
This course will be held August 6 – 9, 2003 at The Fairmont Chateau Whistler Resort, in Whistler, British Columbia, Canada. The preconference workshop will be held August 5, 2003.

CONTINUING EDUCATION CREDIT
Mayo Foundation is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Mayo Foundation designates this educational activity for a maximum of 20.25 category 1 credits toward the AMA Physician’s Recognition Award. Each physician should claim only those credits that he/she actually spent in the activity.

Approved by the American College of Emergency Physicians for up to 20.25 CME hours of ACEP Category I credit.

All other health care professionals will be provided a certificate of attendance for requesting credits in accordance with state nursing boards, specialty societies, or other professional associations.

REGISTRATION
To register, complete the attached registration form and return by mail or fax. The registration fee of $625 (USD) for physicians and $550 (USD) for residents, physician assistants and nurse practitioners, includes tuition, comprehensive course syllabus, continental breakfast each day and reception on Wednesday, August 6. Preregistration is required and must be received by July 14, 2003. Registrants will receive a confirmation letter upon receipt of payment and completed registration form. Enrollment is limited; early registration is advised. Please present the confirmation letter when checking in at the meeting registration desk.

CANCELLATION POLICY
Your registration fee, less a $75 administrative fee, will be refunded when written notification is received by Mayo School of Continuing Medical Education before July 14, 2003. Notification is encouraged via fax to 507-284-0532. No refunds will be made after July 14, 2003.

LODGING ACCOMMODATIONS
Fairmont Chateau Whistler has extended the following special group rates to course participants and their families:

- Fairmont Room $269.00 (CAD) or approximately $182.75 (USD)
- One-Bedroom Suite $459.00 (CAD) or approximately $311.84 (USD)
- Two-Bedroom Suite $659.00 (CAD) or approximately $447.72 (CAD)

The above rates, based on single or double occupancy, are quoted in Canadian Dollars (CAD) and subject to a 10% hotel tax and 7% goods and services tax (GST). The exchange rate of $1.00 (CAD) is equivalent to $0.68 (USD) as of April 4, 2003. Actual exchange rates will be determined at the time of room deposit and check-in.

To ensure accommodations at the special group rates, reservations should be made before July 5, 2003 by contacting Fairmont Chateau Whistler’s Reservations Department:

- Telephone Direct: 800-606-8244
- Facsimile: 604-938-2099
- Global Reservations Centre: 800-441-1414
- E-mail: reservations.chateauwhistler@fairmont.com

To qualify for the group rate, identify yourself as a participant of “Mayo Clinic High Risk Emergency Medicine.” All reservations must be guaranteed with a non-refundable advanced payment. All advanced payments will be forfeited if a cancellation occurs. Any cancellations or early departures from July 5, 2003, also will forfeit all advanced payments.
MORE ABOUT FAIRMONT CHATEAU WHISTLER

Fairmont Chateau Whistler is just 90 miles from Vancouver, but the journey can take many forms and the memories will last a lifetime. Options range from a two-hour excursion by car or deluxe coach along the scenic Sea to Sky Highway, a more leisurely trip by rail or boat, or a thrilling ride in a helicopter or float plane. All routes offer incredible views of the majestic peaks, rugged coastline and unspoiled Canadian wilderness, making the trip a highlight of the visit.

Tucked away in the Coastal Mountains between the picturesque slopes of Blackcomb and Whistler, Chateau Whistler Resort is a year-round destination. During the summer, Chateau Whistler offers something for everyone with a wide variety of water activities, miles of paved walking and biking trails, plus four championship golf courses, each designed by masters of the game – Jack Nicklaus, Arnold Palmer, Robert Cupp and Trent Jones, Jr. The village is action-packed, too, with street entertainment, great shopping and outdoor cafes.

The thrill of a Whistler summer continues with tennis, mountain biking, hiking, roller blading, canoeing/kayaking, jet boating, windsurfing, fishing, sightseeing, white water rafting, horseback riding, rock climbing and paragliding.

Childcare services are available. The resort also offers a day camp and organized evening activities for children. You may contact the hotel directly or visit their website, www.chateauwhistlerresort.com, for additional information.

TRAVEL

Contact Lynn at Corporate Travel, 1-800-526-4540 or 507-287-7468 for your travel needs. Whether you are only attending the course or your plans include a pre- or post- course holiday, Lynn will be able to assist you with any travel request on most major carriers. Lynn can also be contacted via e-mail at lynn@ctsrst.com.

GROUND - Perimeter Transportation offers shuttle transportation service between Vancouver International Airport, downtown Vancouver and Whistler Resort. The preferred delegate rate is $49 (CAD), 7% GST not included, per person, one way. Seven scheduled departures are available throughout the day. A minimum 24-hour advance notice is required to guarantee space. Contact Perimeter Transportation at 604-266-5386 for departure times, reservations or additional information, or visit their website, www.perimeterbus.com. Identify yourself as a participant of “Mayo Clinic’s High Risk Emergency Medicine” course to qualify for the preferred delegate rate.

British Columbia Rail offers daily train service between North Vancouver and Whistler Village. For more information or to make reservations, call 604-986-2012 directly.

PRE- AND POST-COURSE OPPORTUNITIES

VANCOUVER - Surrounded by coastal mountains and blessed with a spectacular harbor, lush city parks and an undeniable charm, Vancouver can be described as almost ethereal in nature. The Fairmont Waterfront, overlooking Vancouver’s harbor, is a stone’s throw from historical Gastown, Stanley Park, exotic Chinatown, museums, theaters and beaches. A special rate of $309 CAD ($210.39 USD)* for a deluxe harbourview room, single or double occupancy, is extended to course participants during the periods of August 2 - 4 and August 10 -12.

To ensure accommodations and the special rate, make your reservation directly with the Fairmont Waterfront by July 5, 2003, and identify yourself as a participant of “Mayo Clinic High Risk Emergency Medicine.” Reservations can be made by contacting the hotel directly by telephone at 604-691-1820, by fax at 604-691-1828, or calling the Global Reservations Centre at 1-800-441-1414.

VICTORIA - Victoria is a charming city where time stands still. Certainly one of Canada’s most beautiful hotels, the Fairmont Empress is unrivalled, poised on the edge of Victoria’s Inner Harbor, and steps away from recreation and sight-seeing opportunities. A special rate of $285 CAD ($194.14 USD)* for a Fairmont (standard) room, single or double occupancy, is extended to course participants during the periods of August 1 -5 and August 9 -11.

To ensure accommodations and the special rate, make your reservation directly with the Fairmont Empress by July 5, 2003, and identify yourself as a participant of Mayo Clinic High Risk Emergency Medicine.” Reservations can be made by contacting the hotel directly by telephone at 250-384-8111, or the Global Reservations Centre at 1-800-441-1414.

* The exchange rate of $1.00 (CAD) is equivalent to $0.68 (USD) as of April 4, 2003. Actual exchange rates will be determined at the time of room deposit and check-in.
7:00 a.m. Registration, Exhibits and Continental Breakfast

7:30 a.m. Welcome and Introductions
Introduction to Audience Response System
Deepi G. Goyal, MD, and Wyatt W. Decker, MD

8:00 a.m. Pediatric Emergencies in the First Six Weeks of Life
James E. Colletti, MD

Assessment of the neonate may prove challenging to even the most experienced clinician. Neonates present with a wide array of vague and nonspecific symptomatology. This can often make the distinction between serious illness and parental anxiety a difficult one. This session will focus on an approach to help make that distinction.

Upon completion of this session, participants should be able to:
• Develop an approach to the common neonatal complaints presenting to the emergency department.
• Discuss the differential diagnosis of common neonatal complaints presenting to the emergency department.
• Describe the management of neonates with common presenting complaints.

8:45 a.m. The Most Important Recent Articles That May (Or May Not) Change Your Practice
Deepi G. Goyal, MD

With the vast quantity of medical literature, it is challenging to keep up with the articles germane to emergency medicine and even more difficult to determine which should alter practice. As the media increasingly publicizes study findings, our patients often have access to them before we do. This session will review the most important recent articles pertinent to the practice of emergency medicine and discuss whether their findings should be incorporated into our practice.

Upon completion of this session, participants should be able to:
• Discuss recent articles whose findings are pertinent to emergency medicine.
• Determine whether to incorporate the findings and conclusions into their practice.

9:30 a.m. One Pill Can Kill: Deadly Pediatric Toxins
Matthew D. Sztajnkrycer, MD

Several medications can prove deadly, even in seemingly small doses. This session will review principles of pediatric toxicology, focusing upon selected agents that produce significant morbidity or mortality with ingestion of only a single pill or 1-2 teaspoons. Recognition of these high-risk ingestions, as well as selected management strategies, shall be discussed.

Upon completion of this session, participants should be able to:
• Discuss the differences between pediatric and adolescent ingestion characteristics, and their implications for toxicity.
• Describe and explain the concept of the “one pill” rule and apply it to common toxicities.
• Recognize selected high-risk ingestions that despite a benign appearance may result in significant morbidity or mortality.

10:00 a.m. Refreshment Break
10:15 a.m. An Approach to the Difficult Diagnosis
Annie T. Sadosty, MD
We all experience patients in our clinical practice of emergency medicine in whom the diagnosis is difficult to make. Confusing or perplexing complaints are a fact of life in our specialty, and the emergency department seems to attract them. Here a challenging case will be presented, and an emergency physician will outline clues and narrow the differential diagnosis in an effort to come up with the actual diagnosis.

Upon completion of this session, participants should be able to:
• Identify ways of narrowing the differential diagnosis of a challenging case.
• Initiate treatment based on primary resuscitation needs and then focused on differential diagnosis.
• Outline a diagnostic approach in an effort to make the actual diagnosis.

10:45 a.m. Pulmonary Embolism: Finding the Bomb in the Haystack
Scott M. Silvers, MD
Deep venous thrombosis and pulmonary embolism remain significant causes of morbidity and mortality that are frequently misdiagnosed. This session will briefly review the presenting findings in pulmonary embolism and provide an up-to-date, literature-based review of diagnostic strategies and their limitations. Data regarding D-dimer, ultrasonography, computed tomography (with and without delayed venography) and angiography will be included.

Upon completion of this session, participants should be able to:
• Describe limitations of history, vital signs, blood gas, electrocardiogram, chest x-ray, and D-dimer in screening for pulmonary embolism.
• Discuss limitations of confirmatory tests such as V/Q scan, computed tomography, and angiography in the diagnosis of pulmonary embolism.
• Describe risk stratification strategies and their performance in identifying patients’ risk of pulmonary embolism.

11:15 a.m. The Patient with COPD
Peter DeBlieux, MD
COPD patients pose unique challenges in emergency medicine as subtle differences in management strategies can determine important patient outcomes. This session will review current management strategies and recommendations for COPD and the literature on which they are based.

Upon completion of this session, participants should be able to:
• Review COPD case presentations pertinent for emergency clinicians.
• Discuss the most recent acute COPD management recommendations.
• Discuss the evidence behind these recommendations.

11:45 a.m. Break

12:00 noon Management of Cardiogenic Pulmonary Edema: Beyond the Dogma
Amal Mattu, MD
Acute cardiogenic pulmonary edema is a common emergency department presentation with a high morbidity and mortality. Current treatment options have advanced far beyond the traditional practice of intravenous morphine and furosemide. The presenter will use current medical literature to discuss up-to-date treatment measures for this condition.

Upon completion of this session, participants should be able to:
• Explain the physiologic basis behind current treatment measures.
• Identify various available medications for preload reduction.
• Identify various available medications for afterload reduction.
This interactive session will discuss several interesting cases seen in the Emergency Department at Mayo Clinic to highlight some atypical presentations of common diseases as well as some typical presentations of uncommon diseases.

Upon completion of this session, participants should be able to:
- Describe some atypical presentations of some common diseases.
- Discuss difficult management options for overdose patients.
- Discuss the utility of ancillary laboratory studies in the evaluation of patients with challenging complaints.

Upon completion of this session, participants should be able to:
- Define correctly different dermatologic terms.
- Categorize a rash morphologically.
- Implement a logical approach to diagnose rash.
- Identify several dermatologic manifestations of potentially life-threatening disease

The electrocardiogram is one of the most common tests obtained in emergency medicine practice. Emergency physicians are well versed in evaluating the ECG for the classic signs of acute coronary syndromes. However, there are several deadly non-ACS conditions in which the ECG may be helpful in obtaining an early diagnosis. Of great concern, however, is the fact that several of these conditions can display ECG findings that mimic ACS. Failure to make the proper diagnosis can result in inappropriate and dangerous treatment. The presenter will focus on ECG findings that can help in distinguishing amongst these deadly conditions.

Upon completion of this session, participants should be able to:
- Recognize T-wave abnormalities associated with two deadly non-cardiac diseases that mimic acute cardiac ischemia.
- Describe the difference between ventricular tachycardia and its mimics, and why this distinction is critical.
- Identify ECG clues that help distinguish between pericarditis, pericardial effusion, and acute cardiac ischemia.

Dermatologic complaints account for approximately 8% of emergency department visits. This lecture focuses on providing a logical approach to the diagnosis of rash in the emergency department, and reviews many “can’t miss” diagnoses. The lecture will provide numerous illustrations in an interactive format.

Upon completion of this session, participants should be able to:
- Define correctly different dermatologic terms.
- Categorize a rash morphologically.
- Implement a logical approach to diagnose rash.
- Identify several dermatologic manifestations of potentially life-threatening disease
9:00 a.m. The Cyanotic Infant  
Brian R. Moore, MD

The “blue baby” requires clinicians to rapidly develop a diagnostic and treatment plan. This session will review infant cardiopulmonary physiology and discuss the differential diagnosis for cyanosis in infancy as well as outline the initial diagnostic and management strategy for these challenging patients.

Upon completion of this session, participants should be able to:
• Review fetal and postnatal changes in cardiac anatomy and physiology.
• Discuss common etiologies for cyanosis in infancy and childhood.
• Discuss initial evaluation and management strategies for the cyanotic pediatric patient.

9:30 a.m. Refreshment Break

9:45 a.m. Vasoactive Agents  
Peter DeBlieux, MD

The management of the hypotensive and hypoperfused patient poses many challenges. Among these is the selection of optimal agents to maintain vital organ perfusion. This session will discuss available agents, their mechanisms of action, and an approach to the selection of an appropriate agent based on clinical indication.

Upon completion of this session, participants should be able to:
• List the currently available vasoactive drugs and describe their mechanism of action.
• Discuss the indications and dosages for these agents.
• Identify the appropriate vasoactive agents for the management of the emergency department patient.

10:15 a.m. Thrombolytics for Acute CVA: Where Do We Stand?  
Deepi G. Goyal, MD

The debate regarding the utility of thrombolytics for acute CVA rages on, six years after they were approved for use. This session will review the studies evaluating these agents for stroke treatment and will discuss the controversies surrounding the current treatment recommendations.

Upon completion of this session, participants should be able to:
• Describe the evidence behind the use of thrombolytics for CVA.
• Discuss the controversies surrounding current treatment recommendations.
• Determine whether current evidence supports or refutes the utility of tPA for acute stroke.

10:45 a.m. New Drugs of Abuse  
Matthew D. Sztajnkrycer, MD

With drug use still common, it is imperative for emergency physicians to stay abreast of common drugs that are in vogue. This session will review the newer drugs of abuse, focusing upon club drugs and herbal medications. Descriptions of the agents and their respective toxicities, as well as general management strategies, shall be addressed.

Upon completion of this session, participants should be able to:
• Describe signs and symptoms of MDMA toxicity and management issues.
• Describe signs and symptoms of GHB toxicity and management issues.
• Discuss manifestations of the newer drugs of abuse, including DXM, ketamine, and khat.

11:15 a.m. Break
11:30 a.m. High Risk Obstetrics in the Emergency Department
Torrey Laack, MD

While the majority of pregnancies are uneventful, complications of pregnancy may result in emergency department visits. This session will focus on diagnosis and management of obstetric emergencies with emphasis on illnesses with potentially devastating consequences.

Upon completion of this session, participants should be able to:
• Discuss the differential, diagnosis, and treatment of vaginal bleeding in pregnancy, including the approach to evaluating and diagnosing ectopic pregnancy.
• Identify potential complications of delivery and describe appropriate treatments.
• Describe the clinical manifestations and treatment of eclampsia.

12:00 noon Headache: When to Worry
Latha G. Stead, MD

This presentation will focus on the emergency department presentation of headache. Specifically, it will address important (high stakes) differential diagnoses to consider.

Upon completion of this session, participants should be able to:
• Identify signs and symptoms associated with high morbidity and mortality causes of headache.
• List five potentially dangerous causes of acute headache.
• Describe diagnostic tests used to elucidate specific headache etiologies.

12:30 p.m. The Weak Patient
Thomas D. Meloy, MD

Patients commonly present to the emergency department with the complaint of “weakness” and their workup poses numerous challenges. This case-based session will review the differential diagnosis of weakness and outline an efficient evaluation strategy to help simplify the approach to this often-daunting complaint.

Upon completion of this session, participants should be able to:
• Discuss the differential diagnosis of the patient with acute weakness.
• Describe a logical evaluation strategy for patients presenting with weakness.
• Discuss some unusual causes for acute weakness.

1:00 p.m. Panel Discussion
1:15 p.m. Adjourn
Pediatric Myths and Controversies

James E. Colletti, MD, and Torrey Laack, MD

Many myths and controversies exist in medicine and pediatric emergency medicine is no exception. Supporting or refuting evidence for traditional practices in pediatric emergency medicine will be discussed.

Upon completion of this session, participants should be able to:
- Discuss traditional practices in pediatric emergency medicine that have been examined by the literature.
- Describe the evidence supporting or refuting traditional practices in pediatric emergency medicine.
- Recognize appropriate management of the myths and controversies of pediatric emergency medicine.

Recent Controversies in Acute Carbon Monoxide Poisoning

Matthew D. Sztajnkrycer, MD

CO remains the leading cause of poisoning death in the world. Controversy still exists regarding the efficacy of hyperbaric oxygen as a treatment modality, and which patients may benefit from such therapy. Controversy also exists regarding the management of the moribund CO victim. This lecture shall cover the broad issues of CO poisoning, possible indications of HBO, and management of the moribund patient.

Upon completion of this session, participants should be able to:
- Describe the pathophysiology of CO-poisoning and the risks of HBO therapy.
- Discuss recent controversies regarding the use of HBO in the management of acute CO poisoning and the limitations of the articles involved.
- Discuss the prognosis of the CO-intoxicated victim who is status-post cardiac arrest.

The IV Drug User in the ED: Unique Challenges

Torrey Laack, MD

Patients using intravenous drugs are at risk for unique diseases and pose special challenges for health-care providers. We will discuss the diagnostic and therapeutic challenges of emergent care for users of intravenous drugs as well as the epidemiology and public health concerns of intravenous drug abuse.

Upon completion of this session, participants should be able to:
- Describe clinical symptoms of opioid intoxication and withdrawal and its appropriate treatment in the emergency department.
- Identify the most common causes of severe infections in these patients.
- Recognize specific illnesses related to the use of intravenous drugs in patients with fever, bone or joint pain, back pain, dyspnea, or skin lesions.

Ocular Emergencies

Patricia F. White, DO

Ophthalmologic complaints in the emergency department range from the benign to disease processes that may place the patient’s future vision at risk. The vast majority of patients can be treated without an emergent ophthalmologic consultation. This lecture is an illustrative review that presents the most common ophthalmologic emergencies along with current diagnostic and treatment strategies. Topics will include various ocular infections, traumatic hyphema, acute angle closure glaucoma, and central retinal artery occlusion.

Upon completion of this session, participants should be able to:
- List a complete differential diagnosis for the painful eye, the red eye, and the acute loss of vision.
- Discuss current diagnostic and treatment strategies of the most common ocular emergencies.
- Identify select patients that require emergent ophthalmologic consultation.
Myths in Community-Acquired Pneumonia
Peter DeBlieux, MD

Myths abound in clinical medicine. The identification of practices that are based on practice habit rather than evidence is often the first step towards the development of evidence-based practice. This session will discuss common myths surrounding community-acquired pneumonia and will review current recommendations regarding treatment of this commonly encountered entity.

Upon completion of this session, participants should be able to:
• Describe those myths about community-acquired pneumonia perpetuated by practice habit.
• Discuss the evidence presented against those myths.
• Review empiric treatment recommendations for community-acquired pneumonia.

High Risk Hand Injuries
Luis H. Haro, MD

Hand injuries and infections are among the most commonly encountered problems in emergency medicine. An accurate history and carefully performed physical examination of the hand retain a central role in evaluation and treatment of these injuries. This session will review several high risk hand injuries and outline those requiring special care or specialty referral.

Upon completion of this session, participants should be able to:
• Briefly, but objectively, review high-risk hand injuries, their epidemiology, and most commonly missed diagnoses.
• Review best management principles for commonly missed hand injuries and infections that limit liability and improve patient care.
• Identify which injuries require immediate or urgent specialty care and which can be safely managed in the emergency department.

Advanced Concepts in the EKG Diagnosis of Acute Coronary Syndromes
Amal Mattu, MD

EKG interpretation is the cornerstone of the management of acute coronary syndromes. Emergency physicians must be experts in the recognition of not only the “classic” EKG abnormalities that predict ACS, but also the subtle predictors as well. This session will focus on several EKG abnormalities that are not commonly taught or recognized, yet predict the presence of an ACS and potential for poor outcome.

Upon completion of this session, participants should be able to:
• Identify two subtle EKG findings that predict the presence of ACS or impending AMI.
• Identify two EKG findings that predict critical occlusion of major coronary arteries and significant mortality.
• Recognize right ventricular MI and posterior MI on the routine 12-lead EKG.

Panel Discussion

Adjourn
SATURDAY, AUGUST 9, 2003

7:00 a.m.  Registration, Exhibits and Continental Breakfast

7:30 a.m.  Sepsis Update  
Peter DeBlieux, MD

The management of sepsis has undergone considerable evolution over the past several years. This session will review some of the newer developments in the definition and management of sepsis and sepsis-related syndromes.

Upon completion of this session, participants should be able to:
• Describe signs of systemic inflammatory response syndrome (SIRS).
• Differentiate between SIRS, sepsis, severe sepsis, and septic shock.
• Describe common immunocompromised conditions complicating sepsis.
• Review early interventions in treating SIRS and sepsis.

8:15 a.m.  Systematic Approach to Interpreting Head CT  
Annie T. Sadosty, MD

Computed tomography of the head is a common means by which health providers evaluate critically ill or injured patients. Appropriate interpretation of the head CT remains an important facet of the specialty of Emergency Medicine. This session will outline a systematic approach toward interpreting head CTs to enable health providers to minimize adverse sequelae.

Upon completion of this session, participants should be able to:
• Recite an algorithmic approach to interpreting computed tomography of the head.
• Recognize common intracranial pathology using this algorithm.

9:00 a.m.  Down for the Count! The Evaluation of Syncope  
Wyatt W. Decker, MD

Using case presentations to illustrate key decision-making components, this speaker will review risk stratification and disposition for patients who present to the emergency department with a syncopal episode. In addition, life threats such as subarachnoid, pulmonary embolism, and aortic aneurysm that can present as syncope will be discussed.

Upon completion of this session, participants should be able to:
• Differentiate between syncope and other similar syndromes, including seizures, near syncope, and atypical spells.
• Discuss the importance of risk stratification in pediatric and adult patients with syncope.
• List historical and laboratory features that allow you to classify patients into a risk category.
• Identify patients who can safely be sent home and what follow-up is needed.

9:30 a.m.  Refreshment Break

9:45 a.m.  Drug Interactions You Don’t Want to Miss  
Neil M. Hay-Roe, MD

With the vast and constantly growing number of available drugs, it is more important than ever to keep abreast of those that may have significant interactions. This session will review different types of drug interactions and will provide a general strategy for avoiding them when faced with new or unfamiliar drugs.

Upon completion of this session, participants should be able to:
• List at least three types of mechanisms where drug interactions can be produced.
• List at least three individual drugs that are capable of causing serious drug interactions that are not anticipated based on mechanism of action.
• Describe an approach toward identifying interactions that new or unfamiliar drugs may have with a patient’s other medications.
10:15 a.m. An Approach to a Difficult Diagnosis  
_Luis H. Haro, MD_

We all experience patients in our clinical practice of emergency medicine in whom the diagnosis is difficult to make. Confusing or perplexing complaints are a fact of life in our specialty, and the emergency department seems to attract them. Here a challenging case will be presented, and an emergency physician will outline clues and narrow the differential diagnosis in an effort to come up with the actual diagnosis.

Upon completion of this session, participants should be able to:
- Identify ways of narrowing the differential diagnosis of a challenging case.
- Initiate treatment based on primary resuscitation needs and then focus on differential diagnosis.
- Outline a diagnostic approach in an effort to make the actual diagnosis.

10:45 a.m. Visual Odyssey: Medical Medley  
_Wyatt W. Decker, MD_

Make a diagnosis without asking a single question! The speaker will present a pictorial journey of visual signs of common, uncommon, and potentially serious emergency department presentations. Challenging visual cases will be presented in a format that allows you to test your knowledge. A discussion of each case will include associated clinical features, treatment, and clinical pearls.

Upon completion of this session, participants should be able to:
- Identify characteristic clinical findings of serious illness and injuries.
- List clinical pearls for diagnosing and treating subtle and serious diseases.
- Design pattern recognition for both rare and common syndromes.
- Discuss the appropriate treatment of patients based on initial visual clues.

11:15 a.m. Break

11:30 a.m. Update on Pediatric Sedation  
_Brian R. Moore, MD_

Pediatric patients pose several unique challenges including that of often requiring sedation for various procedures or diagnostic studies. This session will review several commonly used agents for pediatric sedation and will highlight potential indications for each based on the patient’s unique characteristics or the indication for sedation.

Upon completion of this session, participants should be able to:
- Discuss the indications and contraindications of conscious sedation.
- List several available agents that can be used as well as the advantages and disadvantages of each.
- Describe preferred agents for several commonly encountered indications for sedation.

12:00 noon Ask the Experts  
_Faculty_

Throughout the course, participants will have an opportunity to submit challenging cases and questions. This session will provide an open forum to discuss high-risk issues in emergency medicine that may emerge from the discussions during the course as well as to discuss challenging cases that may have been encountered by participants.

Upon completion of this session, participants should be able to:
- Identify three current high risk topics in Emergency Medicine and discuss the controversies surrounding them.
- Describe one personal dilemma faced in clinical practice and the management issues surrounding it.

1:00 p.m. Summary, Evaluation and Adjourn
Preconference Airway Workshop

Tuesday, August 5, 2003  (Optional)
Pre-registration and $200 workshop fee required.

WORKSHOP DESCRIPTION AND OBJECTIVES

Airway management is a cornerstone in the practice of Emergency Medicine. This highly interactive preconference workshop will review basic and advanced topics in airway management. Included will be topics relating to the identification of patients requiring airway intervention, the development of protocols to minimize the complications associated with airway management, the development of an algorithmic approach to difficult airways, and a review of devices developed for this purpose. The session will utilize didactic as well as highly interactive hands-on sessions. Enrollment is limited to 30 participants.

At the conclusion of this workshop, participants should be able to:
• Describe the indications for airway management.
• Recite an airway management protocol for rapid sequence intubation.
• Discuss three airway adjuncts and the indications for their use in difficult airway scenarios.
• Demonstrate the ability to manage a difficult airway scenario using a high-fidelity simulator.

SCHEDULE

6:30 a.m.  Registration and Continental Breakfast
7:00 a.m.  Welcome & Introductions
7:15 a.m.  Who Needs a Tube?  Introduction to RSI

This session will review the indications for advanced airway interventions and the steps involved in rapid sequence intubation including a review of the pharmacologic agents available to minimize complications of the procedure.

Upon completion of this session, participants should be able to:
• Identify emergency department patients who require intubation.
• Assess patients for potential airway complications.
• Describe the steps involved in rapid sequence intubation as well as the pharmacologic agents available for this procedure.

7:45 a.m.  Difficult Airway Devices

This session will review various adjuncts available when faced with a difficult airway scenario.

Upon completion of this session, participants should be able to:
• Discuss four devices to assist placement of an endotracheal tube when faced with a difficult airway.
• Identify devices that are suited to the setting in which he/she practices.

8:15 a.m.  Difficult Airway Algorithm

Difficult airway scenarios are challenging even in the most experienced hands. A preplanned algorithmic strategy can help minimize the angst experienced when faced with these cases and help optimize outcomes. This session will provide course participants with a logical algorithm to use when managing a patient with a difficult airway.

Upon completion of this session, participants should be able to:
• Discuss factors that help identify patients who may pose difficulty with standard airway management strategies.
• Describe an algorithmic approach toward the management of the patient with a difficult airway.
• Identify indications for surgical airway management.
8:45 a.m. Break

9:00 a.m. Initiating Mechanical Ventilation
This session will provide participants with the knowledge to properly institute mechanical ventilation upon successful intubation. Also, situations where noninvasive ventilation may be effective in averting intubation will be discussed.

Upon completion of this session, participants should be able to:
• Describe initial ventilator settings and management for different types of patients.
• Identify measures to optimize the mechanical ventilation while the patient is in the emergency department.
• Describe the approach toward and identify patients who may benefit from noninvasive ventilation strategies.

9:45 a.m. Break

10:00 a.m. Simulation Exercises
Course participants will get ample hands-on opportunity to directly apply the course material covered earlier in the workshop to high-fidelity patient simulators.

Upon completion of this session, participants should be able to:
• Demonstrate an understanding of difficult airway management using high-fidelity simulators.
• Demonstrate an understanding of alternative airway devices by demonstrating their use on high-fidelity simulators.

1:30 p.m. Summary, Evaluation and Adjourn

CONTINUING EDUCATION CREDIT

Mayo Foundation is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Mayo Foundation designates this educational activity for a maximum of 5.75 category 1 credits toward the AMA Physician’s Recognition Award. Each physician should claim only those credits that he/she actually spent in the activity.

Approved by the American College of Emergency Physicians for up to 6 CME hours of ACEP Category I credit.

All other health care professionals will be provided a certificate of attendance for requesting credits in accordance with state nursing boards, specialty societies, or other professional associations.
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Disclaimer
Attendance at this Mayo course does not indicate nor guarantee competence or proficiency in the performance of any procedures that may be discussed or taught in this course.
Mayo Clinic High Risk Emergency Medicine: Conundrums in the ED

August 6-9, 2003
Fairmont Chateau Whistler Resort, Whistler, British Columbia, Canada

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Optional Workshop
Preconference Airway Lab (August 5, 2003) – $200 (USD) $ ___________

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