

# EMS Update

An Emergency Medical Services Learning  
Resources Center Publication

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## Emergency Treatment Center opens Chest Pain Observation Unit

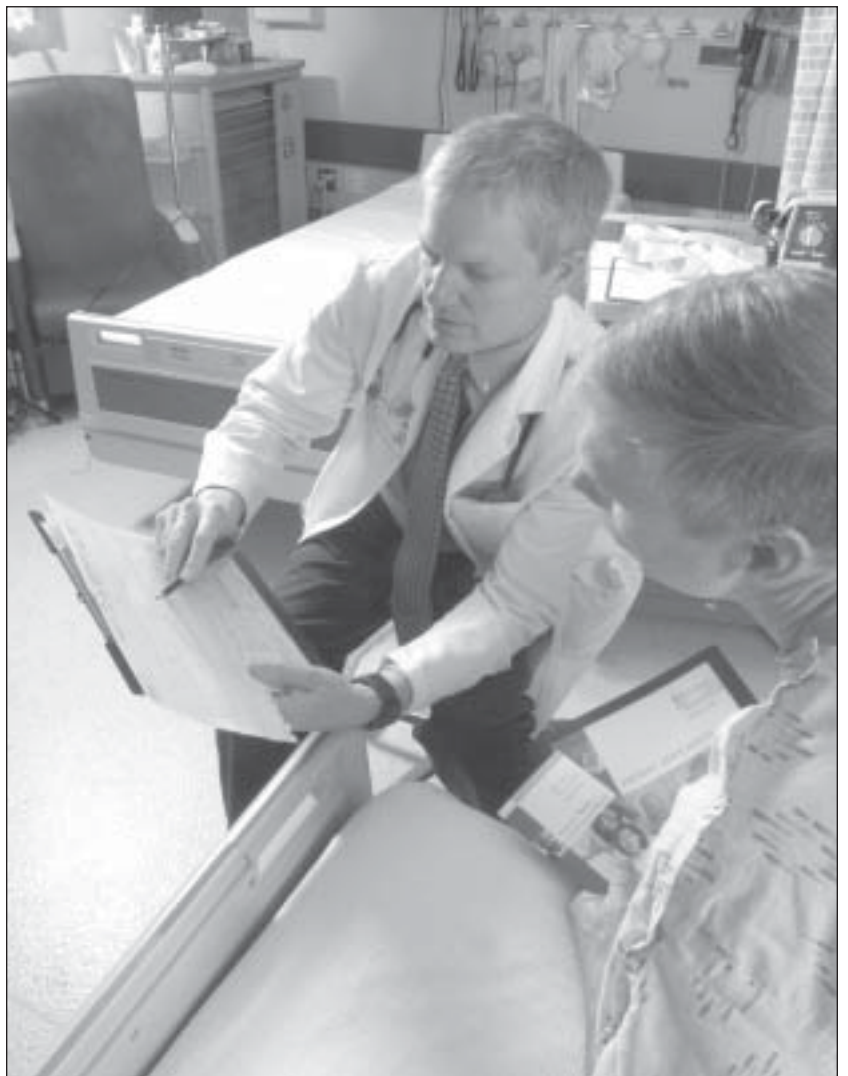
*Stephen  
Scheckel, MD,  
DDS,  
discusses a  
patient's heart  
rhythms and  
electrocardio-  
gram results  
in the new  
Chest Pain  
Center.*

“Heart disease is the leading cause of death in the state of Iowa. Yet, patients often delay seeking evaluation for chest pain,” says Neal Weintraub, MD, associate professor and interim head, Division of Cardiovascular Diseases, Department of Internal Medicine, University of Iowa Health Care.

Specialists at University of Iowa Hospitals and Clinics began caring for patients in a new Chest Pain Center on January 26. The Chest Pain Center, located in the Emergency Treatment Center, enhances the evaluation and management of chest pain for patients.

Stephen Scheckel, MD, DDS, led efforts to develop the Chest Pain Center at University of Iowa Hospitals and Clinics. “The Chest Pain Center allows us to provide more efficient and thorough heart care,” he says.

Scheckel is associate professor, clinical, Department of Emergency Medicine, assistant medical director, Emergency Treatment Center, UI Health Care, and deputy medical examiner, Johnson County.



“By using an observation period of approximately 8 to 12 hours, we are better able to determine which patients can safely go home and

which patients require hospital admission and further cardiac testing

*continued on page 2*

# Chest Center cont'd

**Stephen Scheckel, MD, DDS**



“Hopefully, the Chest Pain Center will increase awareness of cardiac disease and prompt more patients to seek evaluation when chest pain develops,” says Weintraub.

In addition, a cardiac risk assessment, healthy heart education and counseling by a cardiac rehabilitation specialist is provided. Prior to discharge, many patients will undergo treadmill testing to further assess their cardiac risk.

“Patients will appreciate the convenience that the Chest Pain Center offers,” Weintraub adds. “It is easy to locate the facility, and convenient parking is available. Once their evaluation has been completed, many patients will walk out of the Chest Pain Center and return immediately to normal activities, including work, without

having to undergo additional testing. Those patients who are determined to have underlying heart disease promptly receive the cardiac treatment that they need.”

Chest pain or discomfort is the most common chief complaint of patients with myocardial infarction (heart attack). Heart attack symptoms include: spreading pain in the shoulders, neck or arms; chest discomfort — often described as crushing, pressure, squeezing, or burning — that lasts more than 20-30 minutes; sweating; nausea; and shortness of breath.

However, many causes of chest pain are unrelated to cardiac disease (e.g., pulmonary embolus, pleurisy, and reflux esophagitis). Therefore a careful, complete patient medical history is important.



**Neal Weintraub, MD**

and evaluation,” he adds. “In the past, patients who came to ERs with chest pain were either admitted to the hospital for up to several days to have a heart attack ruled out, or sent home. Some of those patients who were sent home were at higher risk for complications.”

Studies have shown that making the diagnosis of a heart attack when some people are first seen in an emergency department can be very difficult. Certain groups of people, including women, diabetics and the elderly, can have atypical symptoms. In the past, identifying the patients who could safely go home versus those who needed to be hospitalized for further evaluation had been a costly and risky diagnostic dilemma.

Theresa Brennan, MD, interventional cardiologist, director, UI Heart Care, UI Hospitals and Clinics, says, “The Chest Pain Center addresses the diagnostic dilemma by providing an observation period in the emergency department during which a standard set of tests are run to rule out heart attack in the patient with chest pain.”

Since patients could risk further injury if sent home, the Chest Pain Center provides an observation period in the emergency department where healthcare providers run tests to rule out heart attacks.



*Some patients will undergo treadmill testing to further assess their cardiac risk after examination in the Chest Pain Clinic.*

*Bob Henry, PS, lieutenant, Iowa City Fire Department, teaches EMS Learning Resources Center paramedic students the tactics necessary to perform vehicle extrications.*



## Extrication—vehicle is removed from around the victim



*Lori Hartley*

**T**he principle objective of extrication is to provide a safer environment for the victim and the rescue team.

Extrication is the art of removing wreckage from around the victim and removing the victim from the entrapment. All efforts to free the victim are focused on preventing any injury to rescuers and further injury to the victim. The art of extrication then requires emergency responders to apply extreme forces to the entrapment or structure while at the same time protecting the individual.

The primary role of the paramedic in rescue operations is to have proper training and appropriate personal protective equipment that allow safe access to the patient.

Bob Henry, PS, lieutenant, Iowa City Fire Department, teaches EMS Learning Resources Center paramedic specialist students the tactics and skills necessary to extricate patients from vehicles.

“The most important point to remember is that the vehicle is removed from around the victim and not the reverse,” says Henry.

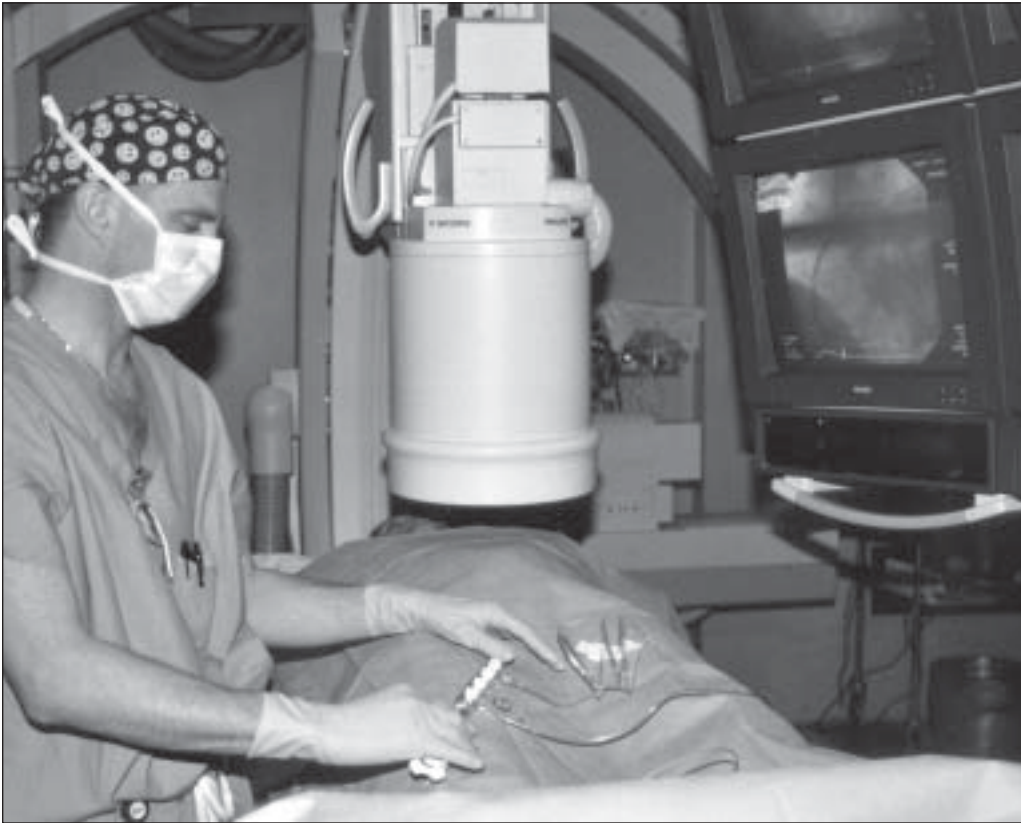
“Rapid access to an ill or injured patient requiring extrication or rescue can be critical to the patient's eventual outcome. With patients who have multisystem trauma, assessment, stabilization, and extrication should be rapid. These procedures, however, must be accomplished with the safety of both the patient(s) and the rescue team as a top priority.”

Extrication equipment can cause injuries. Although paramedics may not directly participate in freeing the patient, they have primary responsibility for patient care and serve an important role as observers for potentially hazardous procedures.

Because paramedics often are the first responders to many scenes that require rescue, they should: understand hazards associated with various environments; know when it is safe to attempt rescue; have skills to effect a rescue when safe and necessary; understand the rescue process and be skilled in preparing the patient to allow for safe extrication and medical care.

Victims who are not trapped should be removed first to make more working area for rescuers who are trying to remove the entrapped. Rescuers should choose the easiest route to gain access to a vehicle.

“We appreciate the hands-on experience our students receive. It is very beneficial for them to be able to receive an extrication demonstration from the firefighters and then be able to practice hands-on the most current and safest extrication techniques with the firefighters' assistance,” adds Lori Hartley, RN, coordinator, paramedic specialist training program, EMSLRC.



remain competent in their skills. In addition, knowledge grows in what someone sees and experiences; working as a paramedic in the hospital is a learning opportunity.

Scott Nibaur, PS, (photo at left) is a 1997 EMS Learning Resources Center paramedic training program graduate. He hopes to use his paramedic skills in his imaging technologist job in the future.

“I’d like to have a paramedic title in my current job so I can use the skills I’ve been trained with,” says Nibaur. “If my job description was defined as a paramedic, I’d be able to monitor patients, mix drugs for IVs, start IVs and intubate.”

“Ideally, the defined ambulance paramedic role would just be transferred to the hospital setting,” says Chris Parrish, PS. Parrish works in the cardiovascular laboratory at Mercy Hospital, Iowa City and is the first paramedic to be employed there as a paramedic.

“I think the hospital roles would appeal to many paramedics. I think many would prefer to have a full-time in-hospital paramedic job rather than a part-time or volunteer position with an ambulance service.”

Typical ambulance hours are long and in the middle of the night. Hospital paramedic positions with better hours likely would appeal to paramedics. The in-hospital setting would also offer better working conditions than the ambulance calls out in the snow or high heat.

Parrish sets up and prepares sterile tables, assists physicians, transports patients, removes arterial/venous sheaths and maintains bloodflow, monitors and assists physicians with Swan Ganz catheters, temporary pacemakers, arterial lines, and assists with patients within the scope of practice of paramedic specialist certification.

“I appreciate the learning environment I’m in now,” says Parrish. “I enjoy learning every day from the physicians. It’s exciting to me to see a patient recover from an irregular life-threatening heart rhythm after being defibrillated within 30 seconds of symptom onset. That doesn’t happen in the field.”

## Paramedics allowed to use skills outside ambulance service

**P**aramedics may now function as paramedics, under the direct supervision of a physician, and when they are employed by or assigned to a hospital or medical center.

Steve Mercer, MA, PS, education coordinator, Iowa Bureau of EMS, says, “Iowa House law 2333 gave paramedics authority to function other than in the back of an ambulance. They can now perform the skills they could always do, but previously had no authority to use anywhere else.”

Since March 2001, when Iowa Governor Tom Vilsak signed the bill, paramedics have been authorized to provide emergency and non-emergency medical care services.

“The paramedics’ hospital role is a positive step forward to EMS being part of the total health care,” adds Mercer. “A paramedic’s job descrip-

tion must identify what they are able to do. They are limited to their scope of practice and what skills their certification allows them to perform.”

Paramedics can now work in some hospitals in cardiac catheter labs, emergency rooms, respiratory therapy departments, intensive care units and other health care areas as defined by the institution.

Paramedics can be a tremendous resource to health care provided in the hospital setting.

Craig Keough, MS, PS, northeast regional coordinator, Iowa Bureau of EMS, was previously director of Boone County Ambulance Service, Boone, Iowa. He helped define the roles of paramedics employed at Boone County Hospital.

“Paramedics may prove certain cost savings to hospital administration,” says Keough. “The appropriate delegation of paramedic skills in an emergency room may free up a nurse or physician assistant to provide care or perform other tasks they need to do. This may also present a benefit to the patient in waiting time for treatment.”

A hospital position, gives paramedics more opportunities to



*Steve Mercer*



*Chris Parrish*

# Jones and Jennissen join Emergency Medicine team

*Catherine Jones, MD, assistant professor, clinical; director, Emergency Medicine Ultrasound, Department of Emergency Medicine.*



*Charles Jennissen, MD, assistant professor, clinical; division director, Pediatric Emergency Medicine, Department of Emergency Medicine.*



“We are thrilled to have Dr Jones and Dr Jennissen join our staff,” says Eric Dickson, MD, professor and head, Department of Emergency Medicine, University of Iowa Health Care. “In her role as director of Emergency Medicine Ultrasound, Dr Jones will oversee and teach ultrasonography in the Emergency Treatment Center.

“Dr Jennissen, as director of Pediatric Emergency Services, will continue to supervise and instruct residents and medical students and lead a departmental initiative to expand pediatric emergency medicine patient care and services.”



*Eric Dickson, MD*



# EMS

**THERE WHEN YOU NEED US**

## Emergency Medical Services Week set for May 16-22

Emergency Medical Services Week 2004 will bring together local communities and media personnel to publicize safety and honor the dedication of those who provide the day-to-day lifesaving services of the medical "front line."

The theme of this year's EMS Week, "EMS: There When you Need Us," focuses on the commitment and dedication of the 750,000 EMS professionals who provide an essential community service every day.

"We are celebrating the 30th anniversary of EMS Week this year. This year's EMS Week theme, "EMS: There When You Need Us," emphasizes that no matter what the emergency or when it occurs, EMS is there to provide immediate lifesaving care and transportation," says J. Brian Hancock, MD, president, American College of Emergency Physicians. "Just as important is the recognition that EMS is part of a total system of health care providers that includes the bystander who calls 9-1-1, the

medical first responders, ambulance care and transportation, emergency helicopter transport, the hospital emergency department, specialty care centers, rehabilitation, and injury prevention/public education programs. All of these components make up the community emergency medical system."

Activities will be held throughout Iowa and the nation during EMS Week honoring paramedics, emergency medical technicians, first responders, firefighters, and the police. EMS providers also will educate the public about injury prevention, safety awareness, and medical emergencies.

EMS Week celebrations will also be held in conjunction with National Emergency Medical Services for Children (EMSC) Day, Wednesday, May 19.

This event will highlight the essential need for specialized emergency care for children.

The annual National Moment of Silence will be held Saturday, May 29. The National EMS Memorial Service held in Roanoke, VA, organizes this national event to honor and remember the nation's EMS providers who have made the ultimate sacrifice and given their lives in the line of duty. All the EMS and communications agencies that are participating will observe 60 seconds of radio silence at 8pm (EDT). For more information, go to <http://nmos.nemsms.org>

*The proportion of the aged in society today is greater than ever before, and growing faster than any other segment of our population. EMS will treat increasing numbers of elderly patients in the years ahead.*



## EMSLRC introduces Geriatric Education for EMS



**Clark Christensen**

**T**he proportion of the aged in society today is greater than ever before, and growing faster than any other segment of our population. The prospect that the health care needs of older adults will continue to increase in all areas, including prehospital care. Approximately 25 percent of Americans will be 65 years of age or older by the year 2030 and will represent 70 percent of all ambulance transports.

“Iowa has the fourth largest population of citizens over the age of 65 and the largest population of citizens 85 and older. This means that the EMS providers in Iowa will treat increasing numbers of elderly

patients in the years ahead,” says Clark Christensen, PS, EMS Learning Resources Center instructor.

“This population has specific medical needs that must be met and the Geriatric Education for Emergency Medical Services course is designed to address all of those special needs,” adds Christensen. “To ensure quality prehospital care of our older adults, prehospital providers must acquire the additional knowledge, skills, and attitudes that comprise the basic concepts of geriatric medicine, as well as the ability to care for older adults in an empathetic manner.”

The Geriatric Education for Emergency Medical Services (GEMS) course is highly interactive with hands-on skill stations, small group scenarios, and case-based lectures.

The GEMS curriculum was designed to help prehospital professionals to better assess and manage ill, injured, or disabled older patients. The American Geriatrics

Society predicts GEMS will have a profound impact on the care of older people in the prehospital setting.

Christensen and Rosemary Adam, RN, PS, nurse instructor, EMS Learning Resources, are certified GEMS course instructors.

“The first of its kind, the course has many interesting features, is especially learner-friendly, and will be on the cutting edge of clinical practice in geriatric emergency medical services,” says Christensen.

“The new curriculum helps ensure that older adults receive the specialized treatment they require from prehospital professionals in the critical moments when geriatric skills are needed most.”

A one-day BLS course (geared toward EMT-Bs and first responders), and a one and one-half day ALS course (geared toward EMT-Is and paramedics) is available.

For more information on the GEMS course, contact the EMSLRC at (319) 356-2597.

# Air Care paramedic first Iowan to receive flight certification

*Lee Ridge, at right, is the first Iowan to become a certified flight paramedic.*

**L**ee Ridge, EMT-P, FP-C, an original and 16-year member of the University of Iowa Hospitals and Clinics Air Care II flight team, based in Waterloo, recently became Iowa's first certified flight paramedic.

"I chose to take the certification exam for validation to myself," says Ridge. "I wanted to see where I was in the aeromedical community."

According to Graham Pierce, FC-P, president, board for Critical Care Transport Paramedic Certification, there are approximately 350 certified flight paramedics in the U.S.; Ridge being the sole Iowan.

"This is the only exam in the U.S. that verifies competency as a flight paramedic. That paramedic strives for the highest standard," says Pierce. "It helps some get a job, it helps others keep their jobs as some programs require the certification. The certification also helps flight paramedics get higher pay and gain respect of their peers."

"I think patients benefit when they have a certified paramedic caring for them," says Ridge. "Typically those who strive for these levels are motivated, competent individuals. This should make them better clinicians."

Flight services benefit because they must be able to verify competency of their staff.

All paramedics may take the certification exam with 80 percent required to pass. The certification is good for four years then retesting is required for recertification.

The 125-question written exam is meant to test experienced paramedics' advanced knowledge and skills who are associated with Flight and/or Critical Care Transport Teams.

The exam includes subjects such as: safety issues; trauma; respiratory; thoracic; neuro; pediatric and neonatal; and flight stress.



**Graham Pierce**

## EMS Update

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People with disabilities are welcome at the University of Iowa Hospitals and Clinics where reasonable accommodations will be made upon request. Please contact the UIHC Department of Social Service, (319) 356-2207.

# EMSLRC course calendar

2004		MD (CMEs)	RN (CEUs)	EMS (CEHs)
Apr 1-2	Iowa City: Advanced Cardiac Life Support/Pediatric Advanced Life Support Instructor and Instructor Renewal	Varied	Varied	Varied
Apr 5-6	Iowa City: Advanced Medical Life Support Provider and Refresher	0	1.4	16
Apr 12-13	Iowa City: Prehospital Trauma Life Support Basic/Advanced Provider	0	1.6	16
Apr 16	Iowa City: Critical Care Paramedic Refresher	0	0	8
Apr 16	Iowa City: Heartsaver First Aid	0	0	0
Apr 17-18	Marengo: Pediatric Education for Prehospital Professionals	0	1.45	0
Apr 19-29	Iowa City: Critical Care Paramedic	0	0	94
Apr 30	Waterloo: Advanced Cardiac Life Support/ Pediatric Advanced Life Support Instructor Renewal	Varied	Varied	Varied
May 3-4	Iowa City: Advanced Cardiac Life Support Provider	0	1.53	0
May 5	Iowa City: Advanced Cardiac Life Support for the Experienced Provider	7.5	.78	8
May 6-7	Iowa City: Advanced Trauma Life Support Student	19	0	0
May 7	Iowa City: Advanced Trauma Life Support Student Refresher	5	0	0
May 10	Iowa City: Neonatal Resuscitation Program Provider/ Neonatal Resuscitation Program Provider Renewal	0	.58/.33	0
May 12	Iowa City: Advanced Cardiac Life Support Provider Renewal	0	.45	0
May 13-14	Mason City: Advanced Cardiac Life Support/ Pediatric Advanced Life Support Instructor/Instructor Renewal	Varied	Varied	Varied
May 17	Iowa City: EMT-Basic Training Program begins	0	0	0
May 20-21	Iowa City: APLS0The Pediatric Emergency Course	17	1.8	18
Jun 4	Iowa City: Advanced Trauma Life Support Instructor	13	0	0
Jun 5-6	Mt Vernon: Advanced Medical Life Support Provider/Refresher	0	1.42/0.5	16/4
Jun 10-11	Marshalltown: Advanced Cardiac Life Support/ Pediatric Advanced Life Support Instructor/Instructor Renewal	Varied	0	0
Jun 18:	Iowa City: Prehospital Trauma Life Support Instructor/Coordinator	0	.7	7
Jul 6	Iowa City: Paramedic Training Program begins	0	0	0
Jul 23	Iowa City: Advanced Cardiac Life Support Provider Renewal	0	.45	0



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