

# EMS Update

An Emergency Medical Services Learning  
Resources Center Publication

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## Saving lives on the golf course

**S**udden cardiac arrest is the No. 1 cause of death on the golf course. Because of its size, often remote location, and poor accessibility, a golf course is usually one of the worst places to be when

your heart stops. It is difficult for emergency medical personnel to reach patients on a golf course.

"Whenever we've ended up on the golf course for a cardiac arrest call, the course managers have allowed us to drive out to the patient," says Dave Edgar, EMT-P, captain of EMS, City of West Des Moines. "But the four to five minutes to the course then another four to five minutes to the area was not ideal.

"In addition, the golf cart trails aren't wide enough for ambulances, and the spongy turf often doesn't support the ambulance's weight."

In July of 1999, the West Des Moines EMS ambulance service, West Des Moines, Iowa, organized and provided EMS for the U.S. Senior Open Golf Tournament. The tournament, held at the Des Moines Golf and Country Club, had 252,800 people in attendance.

"That event reminded us that older people are frequenting golf courses these days and the chances are even greater of someone collapsing on the course," says Edgar.

The National Golf Federation (NGF) reports that the senior golfer population (age 50 and over) has exhibited appreciable growth in recent years. The Federation also reports that half of all avid golfers (25+ rounds per year) are age 50 or older and 82 percent of the avid golfers are male. According to the American Heart Association, males, 45 and older may be at higher risk for cardiac arrest.

"Today's seniors are among the game's most avid players," says Richard Norton, vice president of NGF's research department. "They average 36 rounds of golf a year—which is about three times what it is for all other golfers."

West Des Moines EMS developed an Automated External Defibrillation

*continued on page 2*

# Golf course cont'd

*West Des Moines EMS teaches a 4-hour Heartsaver Automated External Defibrillator (AED) program which combines CPR and AED training through a coordinating Community Training Center. The training also helps businesses meet OSHA regulations.*

(AED) program awareness campaign and looked at where they wanted to place defibrillators around the West Des Moines area.

"We identified the golf course as one of our primary goals because of the high incidence of cardiac arrest on the golf course, the difficult access, and the remote location," says Edgar. "We feel that if someone went down on the golf course, they would be more likely to get the help they needed more quickly if a defibrillator were available."

According to emergency department personnel, people who suffer cardiac arrests on golf courses without AEDs almost never make it. Those who have witnessed a cardiac arrest on the golf course remember how helpless they felt when a golfer collapsed out on the course and there was nothing they could do to help.

More than 350,000 people die each year of sudden cardiac death, according to the American Heart Association. As many as 100,000 of those deaths could be prevented, the American Heart Association estimates, if automated external defibrillators were widely available.

West Des Moines EMS considered these statistics and targeted golf courses, large companies, and schools in the area and encouraged the organizations to contemplate obtaining AEDs.

"We held a free luncheon-informational meeting for any organization interested in hearing about our AED training program," says Edgar. "Some organizations brought management staff; some brought attorneys. City leaders and state employees also attended to answer questions."

Jackie Lark, event planner at Des Moines Golf and Country Club, attended the information meeting and learned why AEDs are necessary on golf courses.

"I came back feeling sold, that this needed to be done," says Lark. "Most



golf courses have radio communications set up now with the grounds people and maintenance staff."

Edgar says the golf course automated defibrillator program includes a three part implementation. "One, we had to have the AED and people trained to use it. Two, we had to have some form of communication between golfers on the course and the golf shop. Three, we had to have some sort of transportation that was capable of getting to the victim quickly and, if necessary, transporting them to an ambulance."

The Des Moines Golf and Country Club placed two AEDs in May 1999; one in the clubhouse and the other at the maintenance center.

"If something happens out on the course, we can get an AED and someone who knows how to use it to the patient within five minutes, which is important to the patient's survival," says Lark.

"We have two 18-hole courses and a huge swimming and tennis program with people of all ages participating. Forty members of our staff are trained in CPR and on the defibrillator. Now that we have the equipment and trained staff, the biggest aspect is implementation . . . getting AEDs to people who need it. Sooner or later I

anticipate we'll save a life with the automated defibrillator."

West Des Moines EMS teaches a 4-hour Heartsaver AED program which combines CPR and AED training through a coordinating Community Training Center. The training also helps businesses meet OSHA regulations.

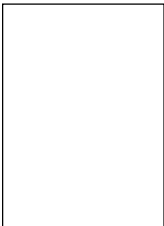
"West Des Moines EMS did an excellent job teaching us. They are also very reliable at setting up quarterly renewals," adds Lark. "West Des Moines EMS owns and maintains the golf course defibrillators."

Des Moines Golf and Country Club members are notified in the monthly newsletter explaining that AEDs are on site. It also explains what they are used for and that if members or guests would come across someone needing help they should notify the clubhouse or maintenance center as soon as possible.

Golf Digest magazine initiated "Links for Life" last fall, a nationwide campaign to save lives on the golf course that is co-sponsored by the American Heart Association (AHA). The October 1999, December 1999 and April 2000 issues of Golf Digest featured the "Links for Life" program. The stories can be found on the Golf Digest Web site at [golfdigest.com](http://golfdigest.com).



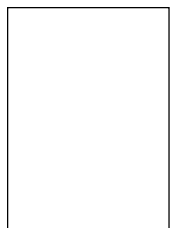
**Dave Edgar**



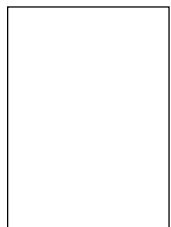
**Jackie Lark**

# EMS communities help patients move to new Burlington-area hospital

*Nineteen vehicles and emergency teams from 11 organizations helped move 86 patients April 4 from Burlington Medical Center to the new Great River Medical Center.*



*Gail Boyd*



*Jeff Gauthier*

**G**reat River Medical Center, (GRMC) West Burlington, Iowa, officially opened its doors for business April 4 when 86 patients were transported to the new facility from the Burlington Medical Center. The \$120 million facility is the largest new-construction project in the history of southeast Iowa and the first totally new hospital built in Iowa in more than 11 years.

"The primary objectives of the move were patient safety and continuation of the medical plan as we moved patients to the new hospital," says Gail Boyd, RN, director of the Emergency Department and patient-move commander at GRMC.

"We wanted to make the actual move as efficient as possible. Our goal was to tailor the plan to meet each patient's desires and needs."

Patient moves were sequenced by easier patients first, then most acutely ill, followed by patients who may be discharged on move day and ending with patients in isolation. Each department director or charge nurse sequenced their patients in move order and were assigned a bed at the new GMAC.

"To maintain continuity of care, each patient was accompanied by a registered nurse during the trip," Boyd says. "In addition, each patient was sent with their current medical record, old records and with a 24-hour medication supply."

Three patients were transported every 10 minutes. Patients left Burlington Medical Center through one of three exits and were received at Great River Medical Center at one of three entrances. Depending on their conditions, patients were brought in the entrance closest to their assigned inpatient location at Great River Medical Center.

Nineteen vehicles provided by 11 different emergency medical transport services moved the patients. Trans-



portation was provided by: Burlington Fire Department; Community Ambulance Service, Mediapolis, Iowa; Galesburg (Illinois) Hospital Ambulance Services; Henry County Health Center Ambulance Service (Mt. Pleasant, Iowa); Lee County (Iowa) Emergency Medical Service Ambulance; Muscatine (Iowa) Ambulance Service; Oquawka (Illinois) Ambulance; Ottumwa; Superior Ambulance Service (Burlington, Iowa); Washington County Ambulance Service.

The Command Center provided the communication control for both facilities on move day. Jeff Gauthier, administrative associate, Emergency Treatment Center, University of Iowa Health Care, assisted with dispatching the ambulances.

"It was a safe, controlled, very patient-focused move," says Gauthier.

"Everything went very smoothly. We tracked the flow of patients with a velcro status board and watched the transport vehicles from departure from the old hospital through arrival at the new medical center."

University of Iowa Health Care also provided the Mobile Critical Care Unit to transfer critically ill patients from the old Burlington Medical Center to the new Great River Medical Center.

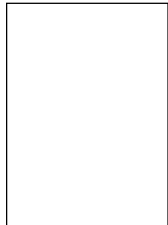
Tom Toycen, RN, flight nurse, and Margaret Umbaugh, RN, neonatal and pediatric transport nurse, University of Iowa Health Care, staffed the Mobile Critical Care Unit.

All organizations that provided transportation vehicles for the actual move also participated in a mock patient move conducted March 7.

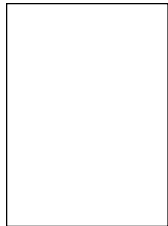
*Wrestling fans used an automated external defibrillator (AED) February 6 to save the life of a Northwestern University wrestler's father.*



# Spectators defibrillate, save wrestler's father at university Big 10 meet



*Dan Gable*



*Matt Doyle*

The Iowa-Northwestern wrestling meet, held February 6, 2000, at Carver Hawkeye Arena, Iowa City, ended early when the father of a Northwestern University wrestler needed serious medical assistance.

Midway through the final match of Iowa's 41-3 win, Joel Schatzman grabbed his chest and asked for help, then fell unconscious. The 157-lb wrestling match was stopped as University of Iowa athletic trainers and spectators assisted Schatzman.

Just two matches before, Schatzman watched his son, Scott, the nation's fourth-ranked 141-pound Northwestern University wrestler beat the University of Iowa's top-ranked

141-pound and defending national champion wrestler.

"The others in the stands—who came to the patient's assistance—and I, quickly discovered he had no pulse and determined that he needed a defibrillator," says Kevin Greenley, REMT-P, and avid Hawkeye wrestling fan. "We performed CPR to provide circulation until the defibrillator arrived."

Luckily for the 54-year-old Schatzman of Chesterfield, MO, the University of Iowa in January 1999 had bought four automated external defibrillators (AEDs) for campus. One was placed at Carver-Hawkeye Arena in March 1999.

The AED is a device that interprets heart rhythms and can deliver electrical shocks. The defibrillation pads placed on the patient's bare chest, allow the AED to sense the heart rhythm and determine whether a shock is indicated. Since it determines on its own whether a shock is

needed, someone with little medical knowledge can properly use the machine. The shock, or defibrillation, is an electrical current that passes through the heart. This helps the heart reorganize its electrical activity so it can pump blood again. When defibrillation is effective, the patient may regain a pulse.

Dan Foster, PhD, certified athletic trainer, associate director of Training Rooms, Athletic Training Services, the University of Iowa, retrieved the AED from the physician examination room directly next to the Arena floor.

The rescuers shocked Schatzman's heart into pumping again within three minutes after his collapse. Johnson County Ambulance Service paramedics arrived a few minutes later through the tunnel near the wrestling floor. They started an IV and noted that the patient was responsive during transport to the nearby University of

*continued on page 5*

## Wrestling cont'd

Iowa Health Care Emergency Treatment Center.

"Schatzman was the first person to benefit from the University of Iowa's new defibrillators," says Matt Doyle, wrestling athletic trainer, the University of Iowa. "Had we not had that piece of equipment, we would have had no way to shock his heart. It would have been a matter of hoping the paramedics arrived in time."

Athletic trainers are there to help wrestlers and to treat fans in the stands, Doyle says. Ambulance crews do not attend University of Iowa events with fewer than 4,000 fans; the athletic trainers are then in charge of the crowd's medical needs.

Dan Gable, assistant to the athletic director and former wrestling coach, University of Iowa, also attended the Iowa vs Northwestern meet.

"We're fortunate to be part of the University of Iowa and associated with University of Iowa Health Care," says Gable. "We're also lucky to have

medical people as wrestling fans who attend the meets.

"It's very appropriate that that piece of equipment was handy and easy to use. The chance of survival was high for him at the Arena.

"Within an hour I was talking to Mr Schatzman at the hospital. Fortunately we had the defibrillator nearby in the training room."

"The Athletic Training Services Department and the Athletic Health Service Advisory Committee felt it was a very desirable addition to our services," says Doyle. "We considered the possibility of catastrophic events affecting sports. Basketball and volleyball players have the highest risk of a hypertrophic cardiomyopathy condition where the heart muscle is thickened and can lead to heart muscle failure. We support those sports at the University of Iowa."

Joel Schatzman underwent heart bypass surgery and is back at his job as a veterinarian.

"Thanks to the medical specialists in the stands and the defibrillator, Joel Schatzman lived to see his son wrestle his way into the finals at the Big Ten wrestling tournament held in March in Indiana," adds Gable.

## EMSLRC offers ICN didactic delivery paramedic program

Beginning September 5, the EMS Learning Resources Center will present the new Iowa Paramedic Training Program curriculum once a week to 21 sites across the state over the Iowa Communication Network. The classroom portion of the 375-hour program is comprised of 132 hours of intensive instruction provided by the EMSLRC.

"We are providing a service that some training programs felt they couldn't offer," says Clark Christensen, EMSLRC instructor, EMS Learning Resources Center. "We have taught the new paramedic specialist curriculum twice and the new state of Iowa paramedic program was gleaned from that curriculum."

The resources within University of Iowa Health Care allow the EMSLRC to take advantage of inhouse experts such as Jackie Heinle, RN, nurse manager, Burn Treatment Center, University of Iowa Health Care, who lectures on burn care.

The EMS Learning Resources Center's role is to provide the classroom content of the program and arrange the sites. The sponsoring site and on-site coordinator take on all other responsibilities including practical skills training, arranging and monitoring all clinical and field training, quizzes, exams, and all other testing.

Enrichment courses such as Advanced Cardiac Life Support, Advanced Medical Life Support, Advanced Burn Life Support, and Pediatric Advanced Life Support, will be taught separately.

The EMS Learning Resources Center will deliver this training over the Iowa Communications Network every Tuesday, 6 to 10 pm, from September 5, 2000 - May 1, 2001. For more information, contact Clark Christensen at (319) 353-8434 or christensenc@uihc.uiowa.edu

## EMS Update

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The (Burlington) Hawk Eye

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*Current Iowa paramedics may advance to the paramedic specialist certification by documenting additional training, meeting the objectives and identifying the training program where they received their paramedic training.*

## Iowa offers new paramedic specialist certification



*Steve Mercer*

Iowa EMS providers may now be certified at the paramedic specialist (PS) level if they enroll in an Iowa paramedic specialist training program after March 15, 2000. Current Iowa paramedics may transition to the paramedic specialist level.

The PS provider level identifies individuals who successfully complete the 1998 United States Department of Transportation's EMT-Paramedic curriculum or equivalent, pass the department's approved written and practical examinations, and is currently certified by the department as a paramedic specialist. The PS provider level is unique to Iowa.

"The paramedic specialist certification is the next level of providers to recognize the increased accountability of the care they provide," says Steve Mercer, EMT-P, education coordinator, Department of Public Health, Bureau of EMS, Des Moines, Iowa.

"Current Iowa paramedics may advance to the paramedic specialist

certification by a transition process," says Mercer.

For example, if someone became a paramedic in 1990 under the 1985 EMT-Paramedic national standard curriculum, they may document additional training, meet the objectives and identify the training program where they received their paramedic training.

"The paramedic specialist level is based on the revised curriculum and requires higher qualifications," says Mercer. "We anticipate that employers will begin requiring this certification level for their ambulance staff."

One of the benefits current EMT-paramedics would receive if they advance to the paramedic specialist level is meeting the requirements of employers to increase the qualifications of staff they hire. The paramedic specialist level is a prerequisite, as of March 15, to become a critical care paramedic. The advanced level of training of a critical care paramedic also appeals to employers.

The paramedic specialist objectives for individuals wishing to transition will be available in July from the Iowa Department of Public Health, Bureau of EMS. The Bureau of EMS will begin transitioning to the paramedic specialist level this fall.

## New Iowa law expands areas where EMS can provide care

On March 16, Iowa Governor Tom Vilsack signed the EMT Practices Act into law expanding the areas in which emergency medical personnel may practice their profession. It authorizes EMS providers to practice as EMS providers, when under the direct supervision of a physician.

Gary Ireland, director, Iowa Department of Public Health, Bureau of EMS, says, "The new law benefits current paramedics to a certain extent that they do not have to be associated with an ambulance service now to work as a paramedic.

"If a paramedic works for a hospital-based ambulance service, they have always been called a 'paramedic' in that hospital. Business is as usual for them," says Ireland.

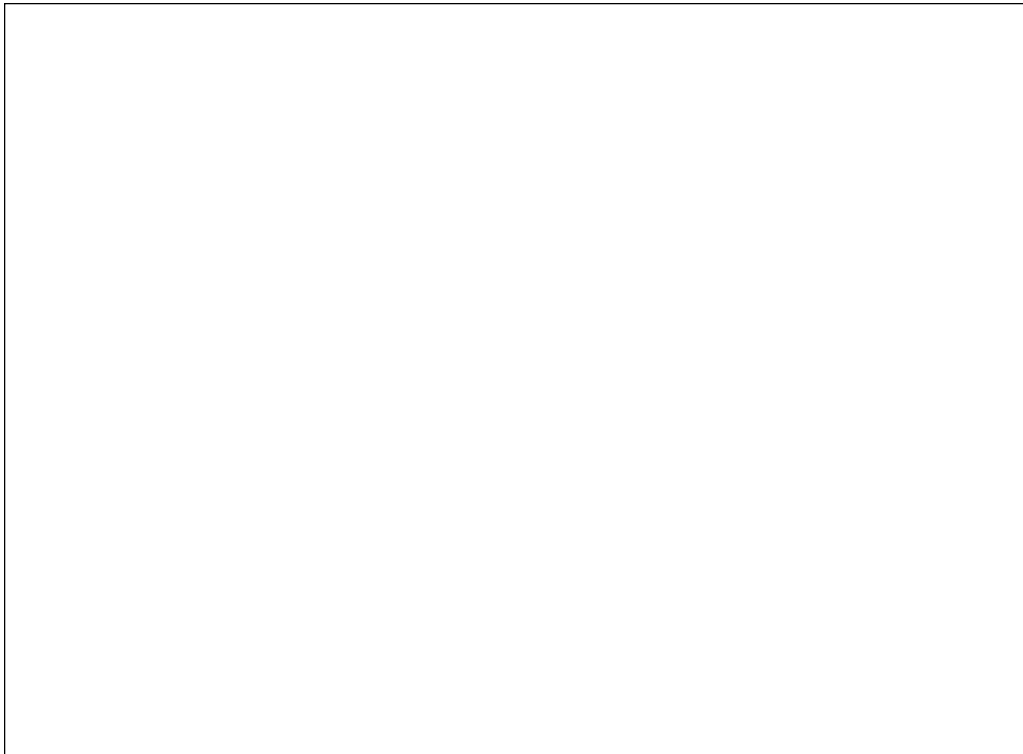
"They are more marketable as certified paramedics. Employers can appreciate paramedic skills based on the Iowa Certification."

Ireland says the new law did not expand paramedic skills and there is no major impact on the care paramedics provide.

Northeast Iowa Representative, Roger Thomas, and the Iowa EMS Association initiated the bill and were instrumental in it passing.

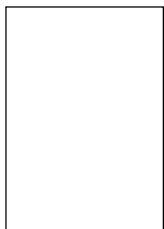
"This is a monumental piece of legislation sure to advance EMS in the provision of healthcare," adds Ireland. "It is good to allow the profession to grow."

Each institution decides if they recognize this rule. Institutional policies and job descriptions will vary from place to place.

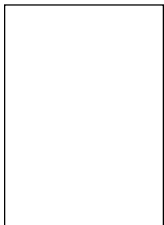


## CPR Saturday offers free training to community

*Dave Cole, CPR instructor, demonstrates resuscitation on a manikin during free CPR training offered at CPR Saturday.*



*Ginny Henry*



*Lance Heern*

A person never knows when they might be in a situation where they need to perform CPR to save a life.

That's why Iowa City area agencies offered *CPR Saturday*, March 25, a free community-wide event open to anyone interested in learning adult, child and infant CardioPulmonary Resuscitation (CPR) and obstructed airway maneuvers. Nearly 100 people came to Iowa City West High School to take the opportunity to receive free CPR training.

Ginny Henry, RN, EMT-P, nurse instructor, Emergency Medical Services Learning Resources Center, says, "Most of the time, the person who administers CPR knows the person who is in trouble. Each minute that passes without CPR lowers the person's chances of surviving.

"If a bystander witnesses a cardiac arrest, knows CPR and acts immediately, it can make a difference between life and death, permanent damage or recovery."

CPR saves lives by bridging the gap between the instant a person's heart stops and the minutes it takes for help to arrive. It involves blowing air into lifeless lungs and compressing the chest to move blood in and out of the heart, which has suddenly failed.

"It's simple and it works. It buys a victim of sudden cardiac arrest critical minutes before a defibrillator arrives which can shock a heart back into a life-sustaining rhythm," adds Henry.

But while such links in the 'Chain of Survival' continue to be strengthened, CPR remains the primary technique because it can be used on the spot without equipment.

"It's largely luck that dictates whether those people live or die," says Henry. "If they collapse in front of somebody who knows CPR, their chances soar."

"Whether you do CPR exactly right is irrelevant," says Lance Heern, CPR coordinator, EMS Learning Resources Center. "Anything you do at that point is going to be an improvement. We want citizens to know how to perform those skills for the few minutes before help arrives."

During calendar year 1999, Johnson County Ambulance Service, Iowa City, treated 50 patients suffering from cardiac arrest. Of those

50 patients, only eight patients had these events witnessed by bystanders who initiated CPR.

"Of those eight patients, four were discharged from the hospital to go on with their lives," says Mike Sullivan, director, Johnson County Ambulance Service. "Unfortunately, none of the 42 people who did not receive help from bystanders were resuscitated.

"The real issue is that when people know what to expect and know how to access the system, it's been proven in our county that we can save more lives by educating the people."

CPR classes were held all day using the American Heart Association presentations, manikin floor work, and plenty of one-on-one attention from instructors and volunteers.

Participants also received blood pressure checks, purchased bicycle helmets, and viewed automated external defibrillator demonstrations, emergency responding units and other medical related displays.

The event was sponsored by the EMS Learning Resources Center, Johnson County Ambulance Service, Iowa City Fire Department and Mercy Hospital, Iowa City.

## EMSLRC forgoes annual conference after 23 years

Iowa's new continuing education requirements, which became effective March 15, offer EMS personnel many new ways to attain EMS continuing education.

"With the advent of many other possibilities for Iowa EMS personnel to earn a portion of their continuing education hours," says Clark Christensen, EMT-P, EMSLRC instructor, "the EMS Learning Resources Center has decided to forgo the annual fall *Topics in Emergency Medicine* conference."

According to the Iowa Department of Public Health, Bureau of EMS, EMS personnel can now receive continuing education in areas such as EMS system planning, field preceptorship, and clinical rounds with medical teams.

# EMSLRC course calendar

MD                  RN                  EMS

## 2000

Jun 12	Oakdale: Heartsaver AED for Basic Life Support Instructor	—	—	—
Jun 17	Waterloo: Heartsaver AED for Basic Life Support Instructor	—	—	—
Jun 17-18	Iowa City: National Registry Practical and Written	—	—	—
Jun 20-22	Donnellson: Emergency Medical Dispatch	—	—	24
Jun 24-25	Mt Pleasant: Advanced Medical Life Support	—	1.5	16
Jul 5	Iowa City: Full Time Paramedic Training Program begins	—	—	—
Jul 15	Oakdale: Heartsaver AED for Basic Life Support Instructor	—	—	—
Jul 21	Des Moines: Advanced Cardiac Life Support for the Experienced Provider	10	1.05	10
Jul 24	Iowa City: Advanced Cardiac Life Support Provider Renewal	4	0.4	4
Aug 11	Creston: Basic Life Support Instructor Trainer Renewal	—	—	—
Aug 19-20	Spencer: Advanced Medical Life Support	—	1.5	16
Aug 21-23-28	Iowa City: Basic EKG	—	0.9	9
Aug 26-27	Mason City: Advanced Medical Life Support	—	1.5	16
Sep 1	Iowa City: Advanced Trauma Life Support Instructor	12	—	—
Sep 5	Iowa City: Iowa Paramedic Outreach Training Program begins	—	—	—
Sep 9-10	Peosta: Advanced Medical Life Support	—	1.5	16
Sep 11-12	Iowa City: Advanced Medical Life Support	—	1.5	16
Sep 14-15	Iowa City: Trauma Nursing Core Course	—	1.4	16
Sep 28-29	Iowa City: APLS—The Pediatric Emergency Medicine Course	16.5	1.8	18
Oct 2-3	Iowa City: PreHospital Trauma Life Support Basic/Advanced Provider Courses	—	1.6	16
Oct 12-13	Iowa City: Advanced Trauma Life Support Student	19	—	—
Oct 13	Iowa City: Advanced Trauma Life Support Refresher	6	—	—
Oct 28-29	Ft Madison: Advanced Medical Life Support	—	1.5	16
Nov 13	Iowa City: EMT-Basic class begins	—	—	—
Nov 30-Dec 1	Iowa City: Advanced Trauma Life Support Student	12	—	—
Dec 1	Iowa City: Advanced Trauma Life Support Refresher	6	—	—



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