During this time of year, the number of thermal injuries increase significantly. Early assessment, intervention and rapid transfer to a burn center may truly make all the difference for these patients.

Focus must be placed on accurate evaluation of airway and breathing. Suspect inhalation injuries with facial burns and evaluate for singed nasal or facial hair, carbonaceous sputum, cough, stridor, wheezing or hoarseness. Prepare for ventilatory assistance or advanced airway management early in treatment as edema may quickly compromise the damaged airway. Also, evaluate the mechanism of injury and presence of distracting injuries when considering spinal immobilization.

Partial and full-thickness injuries need to be kept dry and covered with sterile burn or trauma dressings. Maintain body temperature in the thermal trauma patient by increasing temperature in the treatment environment and by utilizing warm blankets and IV fluids during management. According to Todd Schimmel, RN, Clinical Coordinator for the Regional Burn Intensive Care Unit at Cabell Huntington Hospital, “It is critical that burns are covered with sterile, dry dressings and core body temperature is maintained to decrease potential infections and complications when stabilizing the patient.” Todd also adds, “The rule of 9’s and Parkland formula are fast and easy ways to determine the extent of body surface area (BSA) involved and begin adequate fluid volume resuscitation while preparing for transfer to the burn center.”

The Rule of 9’s allows for rapid and accurate assessment of BSA injured. Keep in mind the differences in percentages between the adult and pediatric populations. Information and diagrams of the Rule of 9’s can be found in most trauma curriculums and by searching on the internet. The Parkland Burn Formula calculates the initial intravenous fluid therapy administration during the first 24 hours post-burn. The formula is 4 mL/kg x % BSA burned.

“Donor tissue site”

“Skin graft site”

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Acute Burn Patients
Assessment and Management Considerations
by Brett K. Wellman, RN, NREMT-P, Flight Nurse, HealthNet 3

On a sunny November afternoon, HealthNet 4 was dispatched to transport a male who was diagnosed with esophageal varices from Jackson General Hospital to Charleston Area Medical Center in Charleston, W.Va. The patient was stable at the ER, and there was no reason to believe that this was going to be anything but routine. Just after lift off from the pad at JGH, without any notice, the patient turned his head and projectile vomited toward the pilot’s door. The blood splashed onto the front of the flight nurse and the back of the pilot. There was approximately one-half inch of blood in the floor. Unfortunately, the patient had previously tested positive for Hepatitis C.

HealthNet 4 immediately returned to Jackson General and HealthNet 2 was dispatched to transport the patient. However, the damage was done. Keep in mind that incidents like this can and will happen, and the more prepared care providers are, the better.

Always wear the recommended protective clothing. Often, we become complacent about protective gear and clothing because it seems excessive or it appears to get in the way. But, when an exposure happens, you will be glad that you had it on.

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Prevention Protection
Best Methods in Handling a Blood Contamination Situation
by Veronica A. Neale, CCT-P, NREMT-P, Flight Paramedic, HealthNet 4

continued on page 2
Case Study

Veronica A. Neale
CCT-P, NREMT-P
Flight Paramedic, HealthNet 4

Rail Yard Explosion

Although a rail yard is not normally considered to be a particularly deadly place, early one October morning, an explosion changed that perception for three men.

The three, all electricians, were working with 220 volt electrical wire when unexpectedly, the electricity arched, igniting the surrounding objects, which included propane. They each received flash-type burns all over their bodies. All three were flown, two of them from the scene, and one of them from Southern Ohio Medical Center after he was taken there by ambulance.

The patient transported by HealthNet 4 received second and third degree burns over approximately 45 percent of his body, including his chest, abdomen, forearms, legs, and groin area. He also had singed facial hair, but no swelling noted in the airway. The flight team administered a total of 10 mg of Morphine for pain. He received 1600ml of lactated ringers in the 59 minutes that the flight team cared for him. According to the Parkland Formula, he was to receive 8,100 ml in the first eight hours, so team members were correct with their fluid resuscitation calculation.

He was received in the Cabell Huntington ER by the trauma team and subsequently admitted to the Regional Burn ICU. Since then, he has had several surgeries and remains in the Burn ICU with one of the other men. The third patient was transported to another hospital where he later died.

We Salute Johnny Evans

Brett Wellman, RN, NREMT-P, Flight Nurse, HealthNet 3

Throughout HealthNet’s history, many nurses, paramedics and pilots have collaborated to provide safe and effective patient care delivery throughout our expansive service area. Recently, one of our friends, who happens to be a pilot, elected to enjoy the fruits of his labor and retire from flight service after safely completing more than 1,350 missions.

Johnny Evans spent several years at the Huntington base as a full-time pilot and greatly impacted our flight team as well as other bases within the HealthNet system and competitive service areas. Not only did Johnny embrace our high standard of safety practices, he looked for ways to improve upon them. During his years of service, he was appointed as the base Safety Officer, Chair of the Safety Committee, and was instrumental in development of the periodic safety summit between pilots from all agencies within the service delivery area. Johnny has been a key part of the safety stand-down day; night vision goggle implementation and training; survival and egress training; aircraft inservice and orientation; and safety checks for specialty care nurses. Many flight team members came to know Johnny well as he did relief work at nearly all of the operational bases, and served on the HealthNet system-wide safety committee.

We have all become better team members after spending time with Johnny. It is selfish to say that we wish he had not left, but we are certainly glad that he came. So, Johnny, we all hope that the cabin stays warm and the grandkids visit often. Our doors are always open to you. Enjoy your retirement…

Medical Scene Flights

What is the launch criteria for medical scene flight requests?

Transporting patients to an appropriate facility in less time has proven to increase chances for positive outcomes. There have been a large number of questions in reference to medical scene flights. Launch criteria now has been established for medical scene flight request.

I. Acute MI
(1) Clinical findings indicating an evolving AMI; (2) 12 lead interpretation by computer, paramedic, or CCT RN reflecting evolving AMI; (3) Resolved V Tach or V-fib with chest pain; (4) Any two of these findings with a

II. Acute Stroke
(1) Hemi-paresis, facial drooping, slurred speech or aphasia; (2) < 3 hours since KNOWN onset, w/ no improvements; (3) A > 45 minute ground transport time to nearest stroke center. All three criteria must be met.

III. OB/GYN
(1) Pre-eclampsia; (2) Pre-term labor; (3) Vaginal hemorrhage; (4) High risk OB; (5) Fetal Compromise.

QUESTION & ANSWER

Prevention/Protection

continued from page 1

Keep backup copies of books, instructional manuals, protocols, etc., as well as cloth medical bags. In this instance, all were destroyed. We could have reduced our out of service time had we had copies of these manuals and replacement bags.

The helicopter was out of service for almost two days, and the medical crew spent the majority of the day in the ER being evaluated and getting baseline tests.

Although this was an air transport patient, the lessons learned apply to every area of patient care and transport. It is our hope that this exercise will serve to protect our colleagues in the future.

Acute Burn Patients

continued from page 1

Half of that total is administered hourly for the first eight hours post-burn time and the other half is administered over the next 16 hours to equal 24 hours total.

Pain management is also a significant issue for thermal trauma patients. This simple, yet often overlooked, intervention makes a tremendous difference in patient care. The physiological impact of pain can greatly affect the assessment and response to therapy. Utilize a measurable pain scale and administer opiate analgesics frequently as long as the patient remains hemodynamically stable. These fundamental stabilization techniques combine to positively impact outcomes and survivability in the acute burn patient.
Bryan S. Justice  
Flight Paramedic, HealthNet 2

Bryan began his EMS career with Boone County EMS as an EMT. After working in his hometown for two years and receiving his paramedic certification, Bryan worked for Kanawha County EMS.

Bryan was hired in 1995 as a paramedic.communication specialist for Charleston MedBase where he worked for five years before being hired as a full time flight paramedic with HealthNet 2 in Charleston in 2000.

Bryan is a certified ACLS-Instructor, PHTLS-Instructor, BLS (CPR/First Aid) Instructor and has provider ratings in NRP, PALS, and PEPP. Bryan also serves on the HealthNet Marketing Committee representing HealthNet 2.

“Flying is something that I have always wanted to do,” says Bryan. “I remember the first time I set up an LZ with the Van Fire Department. I told my brother, ‘One day, you will see me landing in the helicopter to pick up a patient here.’ A dream finally was realized when I picked up a patient shortly after being hired, and my brother was there to see me do it.”

Although flying is his full time job, Bryan is active in his community as well. He has been a youth league football coach for the Danville Panthers Midget Football team for eight seasons, a Little League Baseball manager, and a basketball coach for Madison Elementary where his children attend school.

Bryan also enjoys being outdoors with his family. He and his wife Shawn Marie operate a photography studio. They have two children, Jessica LaRay, 11, and Bryson Levi, 8.

Marion County Rescue Squad

Marion County Rescue Squad (MCRS) was founded in 1972 by a small group of dedicated volunteers who had envisioned a need for emergency medical care in the area. Thirty-five years later, Marion County Rescue Squad has become a statewide leader in emergency medical services. MCRS provides transportation services for all surrounding facilities within north central West Virginia. The primary operations facility is located in Fairmont with substations in Mannington and Pleasant Valley.

MCRS operates a fleet of 10 state-of-the-art ambulances, a paramedic response vehicle, and a rescue extrication unit. The fleet of ambulances is less than two years old, the majority having been replaced within the past year. Currently, the organization employs more than 50 paramedics and EMTs, as well as numerous volunteers who work side by side with paid staff. Volunteers are truly the heart of the organization. Through their employee incentive bonus program, Marion County Rescue Squad’s employees have become the highest paid EMS professionals in West Virginia in 2007.

The squad completes approximately 14,000 calls per year, which include BLS, ALS, and interfacility transports. Each ambulance is equipped with new Lifepak 12 monitors/defibrillators. MCRS has recently purchased two Cross-vent 3+ transport ventilators and has successfully trained all of their paramedics on their use.

The Marion County Rescue Squad provides countless hours of community service, including coverage for countywide special events such as high school sports and health fairs. Educational opportunities, including CPR and first aid courses, also are provided to citizens of Marion County. The West Virginia Department of Health and Human Services recognized administrator Lloyd White as the West Virginia EMS Administrator of the Year.

Marion County Rescue Squad is considered a valuable part of the area due to countless hours providing community service, educational opportunities, and quality patient care.

CAMTS: Five Letters Reflecting Excellence

HealthNet Aeromedical Services was recently re-accredited by the Commission on Accreditation for Medical Transport Systems (CAMTS). We have been accredited since 1998 and were recently evaluated once again. The process included a detailed site survey. We are proud to hold CAMTS accreditation and the national distinction that accompanies it.

CAMTS has very comprehensive and stringent standards related to all aspects of an air medical operation. The site surveyors review patient charts, the QA/QI process, meeting minutes, the communications centers, personnel and training records, inspect medical equipment and the aircraft. Simply put, every aspect of HealthNet’s operation is evaluated against national best practices. We learn from the process, but more importantly, we improve the service we provide.

Our site survey was conducted by two very seasoned air medical professionals from other parts of the US. Their collegial approach to the survey process allowed for the exchange of information and free flow of ideas. This sets the tone for a meaningful learning process to ensure continual process improvement.

Accreditation by CAMTS is not required. In fact, many air medical transport programs choose not to take part in the process. We at HealthNet believe that by doing so we continue to build on a 20-plus year legacy of excellence.
HealthNet Aeromedical Services T-Shirt

50/50 cotton/poly heavyweight navy blue T-shirt featuring the EC135 and the AS350B2 (A Star) helicopters. Available in long or short sleeve. The following adult sizes are available: S, M, L, XL, 2XL, and 3XL. Please specify size on order form.
Short Sleeve - $10 Long Sleeve - $14

HealthNet Aeromedical Services Golf Shirt

Stylish short-sleeved golf shirt in pale yellow with the full color HealthNet Aeromedical Services logo embroidered on the left chest. Shirt is made of 100% Pima cotton. Available in the following adult sizes: M, L, XL, and XXL. $22

The above items may not be available after March 31, 2008. Add shipping and handling to all orders. Allow 4-6 weeks for delivery.

* Note - Addresses must be physical street addresses. Orders are sent via UPS and cannot be shipped to PO boxes.

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