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FLIGHT ROUNDS

A Program of the Milwaukee Regional Medical Center

FALL 2002

CASE STUDY – "OB? OH MY!"

Lisa Heinz

Flight Nurse and Staff Education Coordinator, Flight For Life-Wisconsin

Your department is dispatched to a single vehicle rollover crash. Upon your arrival, you find a 30-year-old female who was ejected and is lying prone approximately 20 feet from the vehicle. You begin your primary assessment and find the patient to be awake, alert, complaining of back and abdominal pain, lung sounds are clear, and no complaint of difficulty breathing. High flow O_2 is applied and c-spine immobilization takes place. Based on the MOI (mechanism of injury), you determine this patient to be a high priority/"load and go." Secondary assessment while enroute to the hospital reveals multiple abrasions to her extremities and abdomen. Upon palpation of the patient's pelvis she states, "I'm seven months pregnant…"

What does that do to your anxiety level? On a 1-10 scale, I'd say it's probably well over a 5! The following will be a review of principles of care for the OB trauma patient. These principles can be utilized by both pre-hospital and hospital personnel.

First, don't forget your ABC's. Primary assessment principles in the care of the OB trauma patient hold true as for any patient. Yes, there are essentially two patients. The one you can see is the one that you will need to aggressively treat for the best guarantee of survival for the one you can't see. A baseline understanding of the physiologic changes during pregnancy will be helpful. These changes need to be considered along with the traumatic injuries that may be present and during all phases of patient care. Here is a ***brief*** overview:

Neurological: The mother is easily fatigued and has balance and gait changes.

Respiratory: Tidal volume and respiratory rate are increased. Later stages of pregnancy, diaphragm is elevated which will effect tidal volume.

2003 UPCOMING EVENTS/CONFERENCES

TNS Course
February 5, 6, 12, 13, 19, 20, 26, and 27, 2003

Emergency Services Conference

Flight For Life will host its 19th annual Emergency Services Conference: Trends and Issues 2003 in March and September 2003.

Watch for more information.

PHTLS
Stay tuned for more information.

Safety Inservice
August 2003

The Wisconsin helicopter will offer a safety inservice for pre-hospital personnel in August 2003. The location of the inservice will be Froedtert Hospital. Upon completion of the inservice, personnel are eligible to sign up for a ride along shift with the Flight For Life staff.

Participation in this program is open to pre-hospital personnel in the following counties: Dodge, Fond du Lac, Jefferson, Kenosha (north of Hwy 142), Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington, and Waukesha.

To register, call Terry Hirsch at (414) 805-6427.

NORTHERN ILLINOIS
MEDICAL CENTER

Froedtert & Medical College

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Scene Call of the Year Award 2001

The 8th Flight For Life Scene Call of the Year Award was presented at the 18th Annual Flight For Life Emergency Services Conference: Trends and Issues 2002 in March. The award was developed to recognize and honor the outstanding contributions to patient care by EMS professionals in northern Illinois and Wisconsin.

Flight For Life-Wisconsin recognized the Pewaukee Fire Department as the recipient of its 2001 Scene Call of the Year. The award was presented on Thursday, March 14th, during a ceremony held at the City of Brookfield Fire Department, who was one of the hosts for FFL's 18th Annual Conference. The scene call occurred on December 10, 2001, when the Pewaukee Fire Department was dispatched to a crash between a pick-up truck and a train at a non-gated railroad crossing. A citizen bystander responded to render assistance, as well as a City of Pewaukee police officer. Fire department personnel quickly recognized the patient's condition to be critical and that there would be a lengthy extrication.

Flight For Life-Wisconsin was able to respond within minutes of their call, and even though the patient's injuries were life threatening, he received timely interventions and treatment at the scene and at Froedtert Memorial Lutheran Hospital's Level I Trauma Center. A memorable moment was when the patient and his family were able to attend the award ceremony and thank the Pewaukee Fire Department for saving his life…the best Christmas present imaginable!

Flight For Life-Northern Illinois presented its award to Zion Fire and Rescue on March 13th at Victory Memorial Hospital during the FFL conference break. The award recognized Zion for a scene call that occurred on November 14, 2001, involving a five-vehicle collision resulting in six patients and one fatality. The

Waukegan, Newport, Bonnie Brook, Winthrop Harbor, North Chicago, Antioch, and Pleasant Prairie Fire Departments provided mutual aid at the scene as well. Flight For Life-Northern Illinois transported one patient from the scene and an additional patient was flown from St. Therese Medical Center.

What made this particular call special was the coordination and teamwork between Zion and the seven other mutual aid fire departments. It was this teamwork that expedited the transport of the injured patients.

Both calls highlight the teamwork that exists among EMS, fire departments, law enforcement agencies, dispatchers, and air medical services as they work together to provide the best possible patient outcome.

2004 FLIGHT FOR LIFE CALENDAR

Flight For Life produces an annual calendar for distribution to hospitals, fire departments, and rescue squads. Production will begin for our 2004 calendar and we need your help in obtaining quality photographs. The photos can be from a prehospital or hospital setting. The photos must meet certain criteria for use in the calendar. If you have a photograph for publication, call Tammy Chatman at (414) 778-4573 or Claire Rayford at (414) 778-6098 ***PRIOR*** to submission. A signed release will be required. Credit will be given to the photographer in the calendar.

With your assistance, 2004's FFL calendar will be as visually exciting as the 2003 calendar. Thanks for your help!

Cardiovascular: Blood volume increases begin at 10 weeks and by 34 weeks can be increased by as much as 50%. Flow to the uterus, and therefore the fetus, is directly related to the pressure from maternal circulation. When in the supine position, the patient may become hypotensive, tachycardic, and nauseated due to the gravid uterus placing pressure on the vena cava. **Patient may not be hypovolemic**. For a trauma patient, it may be necessary to tilt the longboard slightly to the left. Make sure the patient is well secured to the long board and cervical immobilization device to maintain adequate immobilization. Reassess the patient and vital signs. Hypertension is not a normal finding in pregnancy.

Gastrointestinal: Always assume (similar to any patient) that your patient has a full stomach. When assessing the abdomen, a rigid abdomen doesn't always mean there's an intra-abdominal injury. It is helpful if the patient can tell you how far along in her pregnancy she is. The pregnant uterus can usually be palpated at 12-14 weeks and should be at the level of the umbilicus by 18-22 weeks.

Genitourinary: Urinary frequency is common; blunt trauma to the abdomen during later stages of pregnancy is likely to cause bladder to empty or rupture. This is because it is elevated above the protection of the pelvic ring.

After assessing the ABC's and addressing the emergent priorities, there are additional questions for your patient that will aid in determining the viability of the fetus, identifing the potential for imminent delivery, or identifing other injuries. Emergency department staff may need to call upon available resources from within their hospital, i.e. labor and delivery, neonatal intensive care, etc. to assist in the care of the patient. An unconscious patient would be a major factor complicating your assessment. Then, you may not even be aware your patient is pregnant!

OB history and determination of gestational age: How many times has the patient been pregnant? Of those, how many were live births, miscarriages or elective abortions? Does she have a history of any complications with the prior pregnancy? If so, what was it? Is she receiving prenatal care? When was the patient's last menstrual period? Does the patient know her due date? During late pregnancy, the uterus is considered an abdominal organ. Both the uterus and fetus will have a greater chance of sustaining a traumatic injury from blunt or penetrating forces. The viable age of the fetus, should delivery be imminent or the patient require an emergent c-section at the hospital, is 22-26 weeks.

PROM: (premature rupture of membranes) Has the patient felt a sudden gush of vaginal fluid? If so, you will need to assess the fluid. Is the fluid clear? Bloody? Smell like urine? Other characteristics?

Premature Labor: Is she experiencing possible contractions? This may indicate that the fetus or uterus has sustained injuries or labor has begun. Once the patient has arrived in the ED, labor and delivery staff can apply a monitor to assess these contractions as well as the fetal heart rate.

Abruptio Placentae: The premature separation of the placenta from the uterine wall is the second leading cause of fetal death. Early detection is vital to increase the chance of fetal survival. Signs and symptoms of abruptio placentae include: vaginal bleeding, abdominal pain and tenderness to palpation, rigid uterus, and patient exhibiting signs and symptoms of hypovolemic shock.

Fetal Assessment: If the mother is conscious, and depending on the stage of pregnancy, can she feel the baby moving? The staff in the ED can assess fetal heart tones by using a Doppler. The availability and use of ultrasound in the ED or Radiology department will aid in determining not only gestational age but also fetal demise.

After maintaining the ABC's, other management considerations involve weighing benefits to the mother against the possible risks to the fetus. This commonly would pertain to medications, x-rays, or an invasive diagnostic procedure. Remember, aggressive treatment/resuscitation of the mother will help ensure the viability of the fetus. If the patient should be in cardiac arrest, the principles of CPR, ACLS, and resuscitation should be performed.

The care of any trauma patient can be difficult enough at times. Add in the factor of pregnancy and it just became a little more of a challenge. Hopefully, the next time you care for an OB patient who has been involved in some type of traumatic incident, you will find these principles to be valuable in your assessment and care of the mother and her unborn child.

CLINICAL UPDATES

RSV

Lisa Heinz

Flight Nurse and Staff Education Coordinator, Flight For Life-Milwaukee

Respiratory Syncytial Virus (RSV) accounts for most hospitalizations of acute respiratory disease in children less than the age of 2. Three million children under the age of 4 are infected annually with approximately 100,000 requiring hospitalization. Of those hospitalized, about 5% develop respiratory failure. Re-infection continues throughout life. RSV manifests in infancy and reoccurs in the elderly.

RSV is a seasonal virus. It occurs annually, starting mid-winter through spring, usually December through April. RSV accounts for approximately 80% of all the outbreaks of bronchiolitis. It is spread by direct contact with infected nasal secretions. The hospital, its patients, and staff are the major vectors in the transmission of RSV. Isolation is required. Wearing gowns, gloves, and goggles provide maximum protection, which avoids the transfer of secretions to clothing. Meticulous hand washing is of utmost importance.

Clinical presentation starts with rhinorrhea, followed by fever, irritability, poor feeding, and cough. This progresses over 3-5 days in which wheezing occurs and then dyspnea. Neonates are less likely to have fever, but display lethargy, apnea, and increased oxygen requirements. Elevated pulse and respiratory rate, retractions, nasal flaring, grunting, and audible wheezing show progression of the virus. Auscultation reveals high-pitched expiratory wheezes and inspiratory rhonchi and rales. The lungs on x-ray show hyperinflation. Nasal secretions are swabbed and sent to the lab for confirmation of the virus.

RSV is treated with the administration of oxygen and the delivery of supportive care. Suctioning, appropriate positioning, and monitoring of vital signs are the initial steps. Humidification, bronchodilators, and fluid management follows. Aggressive early therapy leads to a decrease in the respiratory symptoms associated with RSV.

Flight For Life-Northern Illinois Celebrates 15 Years of Service

Tammy Chatman

Professional Relations/Marketing Manager, Flight For Life-Northern Illinois

Flight For Life-Northern Illinois celebrated its 15th year of service by hosting an Open House of their new Hangar on Saturday, May 18th at the campus of the Northern Illinois Medical Center in McHenry. Over 300 former and current flight crew, EMS/fire personnel, former patients, hospital personnel, and neighbors attended the daylong event.

At 1:00 pm there was a Memorial March of fire, EMS, law enforcement, and air medical personnel to honor those who have given their lives in the line of duty. The March started in the front of the Northern Illinois Medical Center in McHenry and proceeded to the Flight For Life Hangar where a Dedication Ceremony followed. The Waukegan and Gurnee Fire Departments Honor Guard along with the Highland Guard Fire & Police Bagpipe Team of Lake County led the procession. Quad 1 North's Memorial Team coordinated the March.

The Open House gave Flight For Life the opportunity to show off its new quarters, which houses both crew and aircraft. The event also gave patients and their families the chance to meet the crews who participated in their care. Arlington Heights police officer Chuck Tjiede was among the former patients who took the opportunity to share their experiences during the Ceremony. Mollie McCoy, fiancé of former patient, Tom Burleson, opened the Ceremony with the song "It Must Have Been Angels."

According to Jim Singer, Program Director for Flight For Life, "This day is one of celebration, for our program, for the partnerships we have built with our referring and receiving agencies, and most importantly, for all the patients who have been given a second chance, who fought the odds and survived."

Flight For Life-Northern Illinois flew its first mission on May 15, 1987. The service, together with its sister helicopter, Flight For Life-Wisconsin, have flown over 16,000 patients.

HIPAA – What Does It Mean for the Patient Care Provider

Lisa Heinz
Flight Nurse and Staff Education Coordinator, Flight For Life-Wisconsin
Linda Ptack
Chief Flight Nurse, Flight For Life-Wisconsin

The **H**ealth **I**nsurance **P**ortability and **A**ccountability **A**ct (HIPAA) first came out in 1996. It is a law that not only governs the portability of health benefits between jobs but also standardizes medical coding and billing data. In 2000, the former Health and Human Services Secretary released a set of standards that govern the privacy of medical records. Release of information for public knowledge is balanced with the privacy of that information. For violations, there are fines and penalties that can be enforced.

What does it <u>really</u> mean?
There are several definitions we must understand: "confidentiality," "privacy," "protected health information," and "need to know." *Confidentiality* is your professional obligation to preserve a patient's privacy. This includes data specific to treatments and diagnoses that may be contained in any electronic, paper, or oral transference of information. Anything that can be used to identify the patient, their medical treatment, or condition is known as *protected health information.*

Need to know information can potentially involve a large number of people that are in addition to just the doctors and nurses access to a medical record. One way of determining need to know information is to consider if the information being used is for the purposes of payment, treatment, and operations. In other words, is it in the patient's best interest that their medical record information be used to determine authorization of care, eligibility for benefits, claim review, quality improvement, or risk management? Patients will still be required to sign a form for release of information. Be advised that now they will also have the ability to request a list of who has had access to and obtained copies of their records.

Compliance
Healthcare entities are expected to be in compliance with the established standards by April 2003. It would be advisable that any person involved in the care and treatment of a patient (pre-hospital included) review their current confidentiality policies within their organization. Don't be afraid to ask specific questions as to what is protected information and is there a need to change current practices. Consulting with a legal advisor familiar with the HIPAA regulations is a good way to get started.

How will HIPAA affect air medical operations?
Although intended to regulate electronic exchange of data, the HIPAA regulations issued thus far cover paper records as well as the dissemination of protected health information. The provision of patient care information in a follow-up letter that summarizes the nature of transport, the course of care before and after transport, the outcome on arrival to the receiving hospital, and perhaps the course of care during hospital stay likely would fall into the expanded range of the final HIPAA regulations. In the medical aviation portion of the health industry, the worry is the HIPAA law will prohibit air medical programs from obtaining patient information from the receiving hospitals. Of equal concern is that the HIPAA law will also prohibit programs from sending follow up letters to referring hospitals and EMS providers because they contain patient care information. Even if the follow up letter becomes "illegal" in its current version, the restriction will not prevent air medical teams from sharing general educational information learned from the event in non-identifiable formats for classes and reviews.