CASE STUDY: POST PARTUM DISSECTING CORONARY ARTERY
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A 36 year old hispanic female presented to her local hospital’s emergency department at 1925 with retrosternal chest pain which began at about 1900 with pain radiating to the back of her neck. She also complained of mild shortness of breath. Past medical history revealed that she had given birth five days ago with no significant complications except for mild gestational diabetes mellitus. She had no previous personal or familial history of cardiac disease, nor hypertension, diabetes, renal failure or other significant medical problems. She denied smoking and alcohol or drug abuse. ♦ Her physical exam revealed a slightly overweight female who appeared anxious and was in severe pain. Her blood pressure was 133/75, heart rate 66 with respirations of 20. She was afebrile. Her lungs were clear. Heart tones were normal with no murmur or other sound. Her abdomen was soft and non-tender with no masses. Lab values included: HGB 12.6, HCT 38.4, WBC 14.3 with a normal differential count, PLT 296, Glucose 94, BUN 11, CR 0.8, all lytes within normal limits, Cholesterol 251, Triglycerides 242, CK <20, CK-MB 7 (normal 0-10) and LDH 235 (normal 100-225). The patient’s chest x-ray was normal. Her EKG revealed anterolateral injury pattern and her echo cardiogram showed anteroseptal akinesis. The diagnosis was acute myocardial infarction. She was given ASA, nitrates, heparin and t-PA. Her symptoms and EKG resolved and she was transferred to a tertiary care center for cardiac catheterization. ♦ The pregnant patient presents a unique challenge for the medical team. Myocardial infarction during pregnancy is uncommon, only occurring approximately 1 in 20 - 30,000. Multiparous women in their third
Complications are higher due to the risk of hemodynamic complications. Maternal mortality is increased approximately 20%. It is higher during the peri and post-partum periods. Fetal mortality is approximately 13 - 17%.

There are only a few cases of coronary artery dissection treated medically. Most patients with this are treated with surgical procedures, including stent placement. This can also illustrate the importance of using thrombolysis for associated thrombus, which causes acute myocardial infarction with dissection.

This 36 year old hispanic female was discharged eight days after arrival. After reviewing the cardiac cath findings and discussing cardiac symptoms, she was diagnosed with a dissecting coronary artery. Following confirmation of the diagnosis, it was decided to treat the patient medically. Medical treatment was chosen over surgical intervention because she had initially been treated with thrombolytics, resulting in the artery being recanalized. At this point no other interventions were needed. A subsequent echocardiogram showed improved left ventricular function. The patient is doing well in her recovery, although she was advised that future pregnancies would be contraindicated. Another pregnancy would worsen the heart condition and possibly precipitate another myocardial infarction.

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\text{FLIGHT FOR LIFE CELEBRATES} \\
\text{10,000 SAFE PATIENT FLIGHTS}
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Reaching a milestone demands traveling through peaks and valleys first. In the field of emergency services it often requires finding the peak despite the valley.

This was the case for Flight For Life, which recently completed its 10,000th safe program flight. What began as a minor traffic accident ultimately resulted in a multiple casualty incident with 7 victims, requiring the utilization of 11 fire departments and both FFL helicopters.

Two cars collided on October 18th just after 2130 on I-294 near Great America in Gurnee, Illinois. The 16 year old driver of one of the vehicles got out of his car to assist an Illinois State Police officer and a 23 year old passerby in moving the disabled vehicle out of the road. Within minutes, a driver in an approaching car became distracted by all the activity, lost control of his car and slammed into the first vehicle.

The state police officer, who was unharmed, radioed for help and began assisting the victims. The 16 and 23 year olds were critically injured. The 23 year old was pinned between the two vehicles and had sustained a below the knee amputation of the right leg, an open tib/fib fracture of the left leg and multiple fractures of the right arm. As a last resort, prior to the arrival of the paramedics, the officer had applied disposable handcuffs in a tourniquet to the victim’s legs to help stop the blood loss.

Gurnee Fire immediately requested FFL-Northern Illinois to the scene. En route to the accident, the FFL crew heard on the radio multiple departments responding with mutual aid to the scene. At that point they contacted the incident commander to ask if a second helicopter was needed. Flight For Life- Milwaukee was quickly dispatched.

FFL-Northern Illinois was the first to arrive at the scene, transporting the 16 year old, who was unconscious and unresponsive with severe head and chest trauma, to Froedtert Hospital in Milwaukee.

Prior to FFL-Milwaukee’s arrival, the paramedic in charge of the patient was able to administer 2500cc of fluid before the IV was displaced. The second helicopter landed just after FFL-Northern Illinois lifted off. Due to limited IV access, the flight physician elected to insert a subclavian line during the flight to Milwaukee, permitting an infusion of blood and fluids to keep the patient alive.

Despite the heroic efforts by all involved, the 16 year old’s injuries proved to be fatal. The 23 year old lost his right leg below the knee in the crash. However, the other interventions prevented him from losing both legs and quite possibly his life.

Although the call was a milestone for FFL, it also reflects the relationship that the program has with the hospitals, fire departments and rescue squads in the northern Illinois and southeastern Wisconsin area. In Flight For Life’s 14 years of operation, the program has evolved to find its niche and synchronize its abilities with all the other links in the EMS chain. This incident is a good example of how well the EMS system works together to provide the best possible end result. In reality, we must understand that we cannot save everyone. But working as part of a team, our patients are provided with the opportunity for a positive outcome.
SAFETY—WHAT ARE WE LOOKING FOR?
John Brodnicki
Flight For Life—Northern Illinois, Pilot

We all hear those catch-all phrases, “Fly home safely” or “Workplace safety comes first”, etc., etc. What does it all really mean? Is it true that just because there was no accident or injury that we conducted ourselves in a safe manner? Does the end justify the means?

Safety is defined as “free of danger or damage”, and a safety device is defined as “something to prevent an accident”. We could also say the safety business includes working to reduce the risks we take until they are at an acceptable level for the task we are trying to accomplish.

We are faced with decisions about safety all day. We are affected by these decisions at home, getting to work, at work or school and back at home. How do we approach safety during the course of the day? Keeping track of your level of safety can be difficult. As healthcare workers and EMS professionals, we often work in a rapidly changing environment where the stress level can rise quickly at just the wrong time, often leading us to a situation where safety can be compromised. Patients can take a turn for the worse, the weather can be much poorer than forecast, a structure fire could flash over quickly. Any scenario can cause us to rush, take shortcuts and increase the risk to ourselves and others. The following are ideas on how we can make our day a safety success.

A) Take a good look at what you are trying to accomplish. Does your plan to complete your intended task conform to accepted hospital, industry or aviation standards? If not, revise your plan.

B) Do you have the proper tools and training for the job? If you don’t, get them.

C) Take a good look at what you are trying to do. Don’t get tunnel vision; seek good information from all sources so you make good, safe decisions. Keep your plan flexible so you can change with the situation.

D) Analyze the risk versus benefit of your task. Don’t take unnecessary risks to finish your job. You wouldn’t drive 200+ mph on the freeway to work. You may drive like that at the Indy 500, where the risk is identified, precautions are taken and the rewards are great.

E) Remember, keep safety in mind and it will pay off for you.

“ABOVE AND BEYOND”

At 1800 on January 15, 1997, firefighters Mike Evert and Mike Gallo left Lake Forest Fire station #2 en route to station #1 for training. Snow had been falling since late morning and driving was slow and difficult. In addition to the 8 inches of snow on the ground, the wind had increased, reducing visibility dramatically.

Evert and Gallo were approaching a railroad crossing in their ambulance when they observed a car sitting on the tracks. The tires of the car were spinning on the rubberized crossing resulting in the car’s failure to proceed forward. The firefighters continued over the tracks and stopped to see if they could offer any assistance. Evert got out and went over to speak with the driver of the vehicle. Upon reaching the car, the crossing gates began to descend. He looked south and saw the headlight of a rapidly approaching commuter train. Firefighter Evert quickly opened the car door and took the driver by the arm saying, “Come with me, we’ve got to get out of here!” He then yelled to Gallo to move the ambulance further away from the tracks and what would soon be flying debris. Evert and the driver fled the tracks just as the train collided with the vehicle, forcing it over 300 feet down the tracks, completely totalling it.

The train, which was traveling at 78 mph when it hit the car, safely came to a halt further down the tracks and radioed for police. After placing the driver into the ambulance and checking her for injuries, the firefighters proceeded to the warmth of the Public Safety building while the accident investigation was being conducted. Fortunately, the only thing hurt that night was the car. The driver and both firefighters were safe and uninjured.

Had Gallo and Evert not stopped to render their assistance, the scenario might not have had such a happy ending. Their quick thinking and rapid decision making helped to save the life of this driver. For this, we salute firefighters Evert and Gallo for a job well done!

If you have any stories that you would like to submit for consideration in future “Above and Beyond” articles, please contact Claire Rayford at (414) 778-6098. Content for the column can be submitted by hospital, fire department, rescue squad or law enforcement personnel from Illinois and Wisconsin. Publication is dependent upon space availability and is chosen by the Editorial Board. Flight For Life reserves the right to edit the submitted articles.
1998 UPCOMING EVENTS/CONFERENCES

JANUARY
17 - Flight For Life's Safety Inservice
The Milwaukee Site will offer two safety inservices for pre-hospital personnel in 1998. The inservices will take place on the Milwaukee Regional Medical Center Campus on January 17 and August 23. 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 Pam White at (414) 257-6069.

FEBRUARY
Flight For Life's Trauma Nurse Specialist Course - February 4, 5, 11, 12, 18, 19, 25 & 26 - This is an intensive eight-day course which emphasizes the physiology and pathophysics of trauma encompassing total assessment and management of the trauma patient. Individuals who successfully complete the course will be certified for 48 hours. Application for approval of contact hours has been made to the WNA-Continuing Education Approval Program. Applications will be accepted on a first-come, first-serve basis. The course is limited to 20 participants. Total course fee is $400. For more information, contact Pam White at (414) 257-6069.

MARCH/APRIL
1998 will bring yet another enhancement to the Flight For Life educational offerings. To improve the quality of our continuing education, we have combined the annual EMS conference and the Emergency Nurse's conference into one conference. Separate tracks will be offered for nurses and pre-hospital EMS personnel. Individuals may choose to attend any of the breakout sessions in either track. The new Flight For Life Emergency Services Conference will be held in two different locations to meet the needs of our hospitals and EMS departments. The first will be held in Grayslake, IL at the College of Lake County on March 31st. The second will be held on April 4th at the Clarion Hotel and Conference Center in Milwaukee just off I-94/43 near Mitchell International Airport. The format for both of these full-day conferences will provide lectures combined with hands-on skill stations. Brochures will be mailed out in early 1998. We look forward to seeing you there!

Flight For Life's Annual EMS Award
The end of the year is rapidly approaching, and with it comes the opportunity to review your 1997 scene calls using Flight For Life. Challenging calls should be submitted for consideration to receive the 4th annual FFL EMS Award. This service award is given to a department in each of Flight For Life's service areas who utilized the helicopter to assist in the transfer and care of their critically injured patient. Applications will be mailed out early in 1998. The winning departments will receive: a commemorative plaque, a feature in "Flight Rounds", a news release in your local paper, and up to 5 free registrations to the award winning crew and Chief for the Flight For Life Emergency Services conference in either Milwaukee or Northern Illinois.