

## CHAPTER 33

### RURAL EMS IS DIFFERENT—HOW?

After reading the chapters of this book, you should be able to tell me how rural EMS is different, but in case you haven't figured it out by now, I'll tell how it's different.

In rural EMS, we usually spend a great deal longer with our patients than an urban EMS provider would. This means that we not only get to use the emergent patient protocols, but also we need to plan for extended patient care instead of just quickly accomplished patient care plans. We need to plan for these extended times and the extended trip differently than in an urban setting for emergent calls. We need to plan more like a Critical Care Paramedic for an extended transfer because every call in our rural area is an extended transport. Proactive planning for a rural area is absolutely essential. If you don't have what you need, you learn to improvise. I remember one patient who was freaking out over just the idea of flying off Beaver Island even though it was an emergency situation, and the patient's heart was not doing so well. The risk of that patient having complications during the flight off Beaver Island was not only possible, but quite likely. We called for and received an order from medical control for a calming type drug, Valium, to relax our patient since the fast heartbeat caused by the fear was detrimental to the patient's cardiac condition. Once the patient received the drug and began to relax, the tachycardia, fast heart beat, and the entire vital signs improved. The stable patient was quite easily transported.

In rural EMS, we know our patient's history before we arrive at their home. We know who is ill and might become our next ambulance run. We know and work closely with our local rural health center staff. We have a close working relationship with these excellent health care providers. We don't have any choice about the amount of time necessary to get our patient to the hospital. We can't choose the hospital to which we are taking our patient like most urban EMS groups. We take our patient where the weather allows us to take the patient. The air transportation dictates where, when, and how we transport our patients.

Since we usually have plenty of time to complete the treatments that our patient may need, we actually get to use our advanced life support protocols. To give you an example, one of the Beaver Island paramedic went to Grand Rapids, Michigan, to "get some experience." He is working full time as a paramedic down there. He had responded to over 150 ambulance runs before he came back to visit Beaver Island. Although he had had many opportunities to start an IV for the patients that he transported, in those one hundred fifty ambulance runs, he had not once cracked open a drug box. He had not once given any medication for pain relief. He had not once given any medication for fluid accumulation in the lungs, even though he had transported many patients in atrial fibrillation and those with possible congestive heart failure. The urban philosophy is simple---get the patient into the ambulance quickly, get the patient to the hospital quickly, and get back out on the streets to get the next patient. The urban EMS services are in business to make money.

Most advanced life support ambulance runs in the rural areas take a long time to arrange and get the patient to the hospital. There is time for caring, patient care. There is time for providing the treatments that are written in the protocols. Since the transport times in the rural setting are frequently measured in hours instead of minutes, we have the chance to get to know our patients even if they are strangers. We need to cajole, convince, and otherwise get our patients to consent to being transported. No one calls an ambulance in the city unless they want to be transported. In the rural areas, people call the ambulance when they need help whether they need to be transported or not. Rural EMS is a helpline as well as an emergency line. Rural EMS is one neighbor helping another neighbor, one friend helping another friend, and one highly trained prehospital-care professional in a rural setting helping out in his community by providing this care voluntarily. Rural EMS is mostly volunteer, while urban EMS is mostly a career, done to pay the bills instead of done to help a neighbor.

Are we perfect in the rural environment? No, we are not as perfect as the urban services. We can't be as efficient as the urban services, nor do we want to be. We are doing our best to help others, but sometimes our skills get a little rusty. We probably haven't started over 50 IV's in the last month. We probably haven't developed the relationships with the trauma center that the busy urban services have. The doctors and nurses at the medical control or other hospitals probably do not always know who we are. "You're from Beaver Island? I didn't know they had paramedics on Beaver Island," I was told just recently in the Emergency Room at Munson Hospital in Traverse City. "You still use that equipment? We quit using that stuff years ago," we are sometimes told.

We frequently try to get the best deals we can in the rural areas. Just recently two ambulance services on the mainland of Michigan were able to purchase some of the expensive powered Stryker ambulance cots. We were able to convince one of these agencies to provide us with their used ambulance cots for a nominal fee. We were offered three ambulance cots (we have to have one extra for times when we are flying one patient off the Island) with three cardiac monitor stands, two IV poles per cot, and an equipment pouch for each one, for \$500 each. Brand new these cots would have cost more than \$16,500 for all three, and we paid less than 10% of that amount, \$1500. Thank goodness for the more urban service's existence since we were glad to take these out of their storage and put them to use. We now, once again, have the ability to put our BIEMS cot into the mainland ambulance directly instead of having to move our patient from our cot to their cot. We haven't actually tried this yet, but it should work in theory. Of course, this is just one more thing that is different. We can't afford to just charter a plane to fly one of the cots over to test out whether or not the cot will fit directly into a Charlevoix EMS ambulance. We can take measurements and ask them to take measurements and then compare the measurements. We just have to take it on faith that everything will work until we actually transport a patient on the newer Stryker cots.

When a BIEMS EMT or paramedic leaves the Island with a patient, (s)he doesn't know when for sure (s)he will get home. Sometimes (s)he may not even know the hospital that the patient will be transported to until after leaving the Island in the aircraft. We have

several times had to divert to a different hospital in a different city due to weather conditions at the town where we had planned to take our patient. I have been asked several times, "Do you have a receiving physician for your patient?" Sometimes, I don't even know which hospital I may be taking my patient to until we finally land. One time, the United States Coast Guard Helicopter landing in a parking lot as close to the hospital as possible instead of landing at the airport. It was up to me to arrange to have a mainland ambulance meet us in that parking lot to take the patient the rest of the way to the hospital.

The concepts of EMS assessment and treatment need to be modified in the rural environment as well. What might seem quite minor to an urban ambulance provider might become very important to a rural provider if (s)he is three or four hours away from a hospital. It might not matter to an urban paramedic if a patient forgot to take his/her blood pressure medication that morning because that can be fixed fairly easily at the hospital, and for an urban paramedic that hospital is usually less than an hour away. Our communications with medical control physicians might differ as well given this scenario. We are taught that we should "give nothing by mouth" frequently in emergency care, but a rural paramedic may be given an order to "let the patient take their medication" or "give them a drink of water" or "a little milk may settle their stomach." Rural medicine in general is different, and it's important that each medical control doctor is familiar with the rural challenges. I wonder how many urban paramedics have been order to "get the patient's weight every two to three hours" until able to transport them. We had the ability to weigh the patient because we were stuck with no method of air transport all night long, and we had decided to monitor the patient at the rural health center. Since we were there, and since there was a scale there, the physician wanted to keep track of the fluid loss of our congestive heart failure patient. The patient's weight was one way to do that.

The urban services are almost always staffed by a minimum of one paramedic and one basic EMT. In the rural areas, there may not be advanced life support paramedics available to help you in an emergency. There either might not be an ALS agency in the area or the ALS staff might be taking care of a different patient and might be available, but quite busy with someone else. The urban areas probably have an elaborate system of backup and are able to call on different services to help cover their area if they get really busy. Most of the rural areas do not have this kind of backup. The planning for the rural must include some kind of plan for backup within the rural agency, more proactive planning. I know that the urban areas have proactive plans for this kind of backup, but the point to be made is that they have a wider variety of resources to accomplish this task.

Yet another difference in rural EMS deals with numbers of people in the agency. Urban agencies usually have separate people for the job positions of director, training officer, and operations officer. Frequently in the rural areas, these positions are handled by one person or shared between several people who perform the jobs when available.

Here is the utmost in obvious difference. The following run occurred in January 2007.

Beginning at 8 pm and ending about 14 hours later, a less than typical emergency response and transport of a serious situation occurred on the Island this past Friday. There were no less than fifty people involved in the treatment and transportation of one 67-year-old cardiac patient this past Friday night.

Those involved in arranging this treatment and transportation included Sue Solle and Donna Kubic from the BIRHC; Sarah McCafferty, Gerald Lafreniere, Joe Moore, Jim Stambaugh, and Dawn Traficante from BIEMS; Darrell Butler, fireman and township maintenance; the Charlevoix deputy Jake Wasylewski; seventeen crew members on the USCG cutter Biscayne Bay; three USCG guardsmen from the Charlevoix station; three EMS providers from East Jordan advanced life support ambulance service including director Jay Peck; USCG personnel from Traverse City Air Station including a helicopter crew, the on-call USCG Flight Surgeon, and personnel from Group Nine, Cleveland District of the USCG; the medical control physicians and emergency room nurses at Charlevoix Area Hospital and Northern Michigan Hospitals; the Charlevoix-Cheboygan-Emmet 911 Dispatch center; and family members of the BIEMS providers. There may be others that we accidentally left out.

The emergency response began like any other with a 911 call and a page by Central Dispatch for a patient with a "high blood pressure". 57 Echo 4, BIEMS emergency response vehicle was the first on scene followed by 57 Alpha 2, the BIEMS advanced life support ambulance. The 67-year-old male patient was having a serious cardiac emergency and was transported to BIRHC accompanied by BIEMS crew members including medical first responder Jim Stambaugh, Basic EMTs Sarah McCafferty and Dawn Traficante, EMT-Specialist Gerald LaFreniere, and paramedic Joe Moore. The patient was brought into the BIRHC, and Family Nurse Practitioner Sue Solle and Registered Nurse Donna Kubic joined the group working to assess, treat, and arrange the transportation of this patient.

This team worked very well under the leadership of Sue Solle who communicated with physicians at both hospitals. The treatment duties were shared by both groups.

Gerald LaFreniere worked to arrange the patient transportation. The first call went to Neal Boyle of Island Airways, but the freezing rain and snow would not allow them to help out in this emergency. Next came the contact with the US Coast Guardsmen through Cleveland and Traverse City. A helicopter from Traverse City's Air Station was staffed, and an attempt to MEDIVAC the patient was begun. All arrangements were made including approval by the USCG Flight Surgeon and all the way through to the mainland transportation and lodging for the BIEMS paramedic who would need to accompany the patient.

Approximately three hours after the beginning of this emergency, the phone rang, and the emergency team was notified that the helicopter had to turn around and return to base due to the poor weather conditions. The icing was making the flight too dangerous for the crew of the helicopter.

The BI team was back to square one. What would they be able to do to help this patient get to the hospital?

Stabilizing and treating the patient without transporting the patient to the hospital became a real possibility. The BI team, led by Sue Solle, contacted physicians at the mainland hospitals and initiated the treatment plan. The USCG Flight Surgeon talked with Sue. A history-making decision was discussed and arranged. The Biscayne Bay was enroute to Green Bay, Wisconsin, to escort a vessel into the harbor there. It was diverted from that mission to resolve Beaver Island's emergency transportation problem.

This was to be the first patient ever transported for a medical emergency by a USCG cutter. A lot of arrangements needed to be made. The only docking on Beaver Island was the BI Boat Company dock. Since the 9/11 security changes, the dock was fenced and gated. The docking areas needed to be plowed after access was obtained. After contact with Beaver Island Boat Company Captain Mike Green who was stranded in Charlevoix, Darrell Butler was enrolled to complete these tasks.

Information received from Cleveland District 9 USCG suggested the BI team had six hours of waiting time before arrival of the Biscayne Bay. The BI team met in the break room at the BIRHC to determine how to divide the six hours in shifts so everyone could get in a nap. Some would go home, some would sleep on cots at the BIRHC, and some would stay awake to monitor the patient. But the naps were not to be part of this early morning. Just as some team members were attempting to nap, Central Dispatch paged BIEMS and BI Fire Department 'Jaws' to a "rollover vehicle accident at the intersection of Kings Highway and Tom McCaulley's Road-unknown number of patients."

This vehicle rollover accident was called in by Jim McDonough, who found it when giving a student a ride home from a school function. Amazingly, the accident involved the father of the student Jim was transporting. Thankfully, the driver had been able to get out and walk to a residence close by. The driver refused any assessment, treatment, or transport. However, the planned naps weren't going to happen.

Gerald and Jake, the BI deputy, went down to the BI Boat Dock to finalize preparations for the arrival of the cutter. They stayed down there to catch lines and assist with the docking. Ice and snow needed to be chopped and shoveled off the deck and the walkway to allow boarding of the vessel. Once the cutter was prepared, BIEMS loaded the patient and transported him down to the Biscayne Bay to be loaded aboard for the trip to Charlevoix. Accompanying the patient aboard the cutter was the crew of the BIEMS ALS ambulance, paramedic Joe Moore and EMT Specialist Gerald LaFreniere.



All three settled into the wardroom of the cutter for the 2-3 hour trip to Charlevoix. The patient rested comfortably and even napped on the smooth trip once the ice of the Paradise Bay harbor was exited. Arrival in Round Lake found three USC Guardsmen had plowed the boat dock and were there to assist with the docking. As the patient was readied for the debarkation and transfer of care, Gerald made arrangements via BIEMS cell phone for transportation for Joe and himself.

The East Jordan (EJ) Ambulance was awaiting the arrival of the cutter. Charlevoix Ambulance was bypassed since the agency was not an Advanced Life Support agency. Charlevoix Area Hospital was bypassed since there was no cardiologist on staff and medical control of this patient had been passed to Northern Michigan Hospital (NMH). The EJ crew was helpful in moving the patient into their ambulance. Patient care was turned over to the EJ crew at approximately 7 a.m. Saturday morning. The patient was transported to NMH.

As if fate had intervened, Gerald's wife Tammy was stranded in Charlevoix due to the same weather problems. Her mother provided transportation for Gerald and Joe to the Charlevoix Airport. The Charlevoix Coast Guardsmen transported the BIEMS equipment to the airport. The BIEMS crew and equipment returned to the Island on an 8:30 am flight.

The story does not end here. Where in the urban setting would the lead paramedic get a phone call from his/her patient three weeks later? Where else, but in the rural setting, would a patient invite his rescuers out his home? I received a phone call from this patient in which he invited me and my wife, and anyone who had anything to do with his rescue and treatment, out to his home for chips, cheese, salsa, and drinks. He even let me set the time of day for the get-together, which, after calling all the crew up on the phone, we set at seven o'clock that night. All the EMS people and rural health center people attended with their significant-others. We were very glad to receive this thank-you for a job well done. It did seem kind of unusual, but, hey, this emergency was kind of unusual. The thank-you was appropriately provided with this party which allowed the patient the opportunity to thank his rescuers. This is an example about how things are different in the rural areas.