

Rob's Rescue



Emergency Response Transportation
for Disabled Persons

Presenter

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Rob and Bryon (EMT lead at the accident)



The accident

- Greene CATS is a public transit system in southwest Ohio, USA.
- Greene CATS had an accident. The bus lost control on a narrow rural road and almost flipped.
- There were two developmentally disabled riders on board.
- One rider (Rob) was non-verbal, in a wheelchair, high functioning, immobile, with metal rods up his spine, and with other severe medical issues.
- The other rider was verbal, relatively high functioning but quite emotional.

The emergency response

- The emergency squad was called to the scene.
- The squad was about to pull Rob out of his wheelchair and stretch him out on the gurney, which might have caused severe injury.
- The transit staff strongly cautioned against taking him out of the wheelchair.
- His mother was called, and she confirmed the danger in doing that.

The emergency response

- Rob was transported to the hospital in a transit vehicle, with an EMT on board.
- The other rider was extremely upset through the whole ordeal, but the first responders either did not know how to calm her or were focused on Rob.
- Fortunately, there were no injuries to either rider.

What we learned

- Even though everything turned out well, all those involved were deeply concerned that the accident and the response had uncovered some critical flaws in how our local emergency response system is set up to respond to disabled and bariatric patients.
- We found many items of concern:
 - There are no wheelchair accessible ambulances.
 - It is difficult for first responders to treat disabled patients in the ambulance while they are in their wheelchairs.

What we learned

- First responders need to improve their fleets and equipment to ensure that they have ambulances that are equipped to deal with these populations.
- We have done a worldwide search to locate wheelchair accessible ambulances and have found that none are available.
- In the US, meeting Federal specifications for ambulances is a requirement for insurance, and those specifications do not allow for ambulances to accommodate people in wheelchairs.

What we learned

- The problem is how to safely and knowledgeably take the patients out of the wheelchairs and preserve the configuration of those with skeletal problems and preserve the ability to breath for those with respiratory issues.
- Most emergency response units transporting bariatric patients face safety risks for the first responders and the patient due to the extreme difficulty in transporting the patient both in the home, in the ambulance and in the hospital

What we learned

- Need to prevent the bariatric patient from suffocating on his own body mass in the ambulance.
- First responders are clearly aware that the special needs and bariatric populations are here to stay and are quickly growing in numbers.
- More specialized training is needed in dealing with people with special physical and emotional needs.

What we learned

- They need much more training to know what to do and how to deal with these populations.
- First responders need to better learn how to determine the extent of injuries of disabled persons, especially when there is low cognitive function, inability to articulate, a need to please authority figures and minimize complaints.

What we learned

- There are excellent sources of training and information on learning about the range of disabilities (cognitive, physical, mental, emotional) and how to deal with disabled in emotional emergency situations.
- The emergency response dispatchers need to know the names, residences, work sites and schools of the special populations so they can dispatch the correct equipment and advise the responders as to what situations they will be encountering.

What we learned

- Emergency dispatchers have no quick access to information about the riders and how to deal specifically with them.
- First responders have a lack of sufficient equipment, training and dispatcher/patient information dealing with special needs and bariatric populations.
- Dispatchers do not have information available to them regarding special needs residents of Greene County, and cannot advise first responders about what situation and special conditions await them at the scene, nor how to contact relatives and care providers that could provide information about the patient.

What we learned

- If a major incident were to hit the community, the emergency responders would not have the equipment, training and information in place to deal with the special needs people that would need emergency first response.
- This deficiency is not only regional, it is also statewide, nationwide and worldwide.

What are the numbers locally?

- Greene County is covered with a range of first responder EMT agencies, with an ambulance fleet of approximately 30 vehicles.
- Greene County has a significant number of people with special needs:
 - Population = 161,573
 - Disabled population = 11.7% (18,904)
 - Elderly population = 13.6% (21,974)
 - Bariatric population (people over 300 pounds and those that are morbidly obese) = 1.2% (2,000)

What are the numbers worldwide?

- According to the World Health Organization, 1 out of 7 people is disabled.
- More people with disabilities are surviving birth, more are living past the age of 5, more are going to school, more are living longer. The emergency transport needs of the disabled continue to grow similarly.

What are the numbers worldwide?

- According to the World Health Organization, by 2020 over 25% of the population will be elderly.
- More elderly are living longer and living with mobility issues.
- According to the Lancet, 7% of adults worldwide are obese and 21% are overweight.

What is being done by the emergency response industry?

- The industry is developing some tools to help.
- There are gurneys that can carry up to a 1,200 pound patient.
- There are reinforced tarpaulins (with handles) and with a hard bottom upon which to carry bariatric patients and to slide them down stairs.

What is being done by the emergency response industry?

- Ambulances can be outfitted with a wench and portable/storable ramp to move the cot + bariatric patient on and off the ambulance.
- There a kind of inflatable body bubble wrap that can be used to keep disabled patients in a particular configuration and out of a wheelchair during transport, while still allowing the patient to be treated during transport

What is our local model and action plan?

Locally, we are focusing on a 3-part model:

- Equipment
- Training
- Information for local dispatchers

What is our local model and action plan?

- Equipment:
 - Using one city's emergency response system as the test site.
 - Sharing of equipment and interagency agreements.
 - Equipment for 30 ambulances (including special form fitting full body vacuum mattresses to help support people in wheelchairs, ramps, wenchers and special cots/stretchers and med-sleds/downstairs transport for bariatric patients: @\$5,000 per vehicle x 30 vehicles = \$150,000.

What is our local model and action plan?

- Training:
 - Developing and improving training.
 - Joint training, training modules, training in person, online and by DVDs.
 - Initial training for all first responders: \$35,000 for the first year of intensive countywide training, and \$15,000 per year for 3 more years.

What is our local model and action plan?

- Information for emergency response dispatchers:
 - Appealing to social services agencies, patient families, patients and doctors to provide emergency information.
 - Comprehensive countywide collection, collating and entering (into the new Countywide dispatching system) the emergency information about the County's special needs and bariatric population: \$35,000 for one year.

What is our local model and action plan?

- Total costs: \$265,000.
- The equipment costs could be phased in, by equipping Beaver Creek Fire Department EMS first, then going from entity to entity.
- Then county to county.

What is our local model and action plan?

- Rob's Rescue is a local partnership consisting of the following many entities (some public, some private for-profit and some private non-profit):
 - Greene County Transit Board (public)
 - Greene County Board of Developmental Disabilities (public)
 - Beaver Creek Fire and Police Departments (public)
 - Wright State University, Office of Disability Services (public)
 - Greene County Sheriff (public)
 - Greene Memorial Hospital/Kettering Medical Network (private non-profit)
 - Miami Valley Hospital (private non-profit)
 - American Red Cross (private non-profit)
 - First Transit (private for-profit)

What is our local model and action plan?

- Go to www.robsrescue.com for more information, pictures of equipment, training, patient information forms, etc.
- Also provided on the website is a video of a simulation of an accident and emergency response involving disabled passengers.

What is your local model and action plan?

- You have seen our local action plan and model.
- How are organized to provide emergency response transportation for people with disabilities in your area?

Thank you.

