



Medical Student Ride-Along Information

Charlottesville-Albemarle Rescue Squad

828 McIntire Road

Charlottesville, VA 22902

434-296-4825

Welcome! The Charlottesville-Albemarle Rescue Squad (CARS) is pleased to have you participate in our ride-along program. CARS is the busiest volunteer rescue squad in the nation (average 40 calls per day) and you will certainly see action during your shift. Keep in mind our personnel are very knowledgeable and experienced and that you are here to observe and learn.

In order to prepare yourself for this experience, we ask that you read the following, which explains how we operate.

1) Understand the **hierarchy** of types of care delivered in the pre-hospital setting. Providers function in Virginia at 4 levels:

EMT Basic: This is a 121 hour course that prepares the provider to do basic life support skills such as splinting, uncomplicated childbirth, CPR. They are the backbone of the local EMS system.

EMT Enhanced: This is an additional 128 hours of instruction. Often called “traumas”, these providers are allowed to practice advanced life support skills such as starting IVs, needle chest decompressions, intraosseous access, and giving more advanced medications such as Narcan, D50, Epinephrine. They typically run calls for allergic reactions, altered level of consciousness, major motor vehicle accidents.

EMT Intermediate: Typically referred to as “medics,” these providers do more advanced skills such as interpreting 12-lead ECGs, intubations and RSI. Their medication set includes cardiac drugs such as Metoprolol and Lasix. They function as the team leader in pre-hospital codes, and run calls for chest pain and shortness of breath.

EMT Paramedic: These are the upper echelon of pre-hospital providers, with most providers having gone to a community college for up to 2 years to obtain this level of certification. They do more advanced and invasive skills such as rapid sequence intubations.

In addition to patient care training, most of our members have additional training in such rescue disciplines as vehicle, technical (rope, trench, confined space, building collapse) and water rescue.

2) Skim through the **EMS protocols** under which local agencies function prior to the shift. They are available here: www.tjems.org/Guidelines.pdf. This will help you become a bit familiar with the protocols that provide a guideline for the delivery of pre-hospital care. Here is an example of the chest pain protocol:

EMT-Basic

1. Administer oxygen.
2. Aspirin 162 mg (2 baby aspirin) chewed.
3. Assist patient with prescribed Nitroglycerin (NTG), 1 tablet SL every 5 minutes as long as SBP > 100 mmHg, to a maximum of 3 doses.
4. EMT-J should apply 1" of Nitro Paste. If patient has taken NTG in past, may administer 1 NTG SL every 5 minutes as long as SBP > 100 mmHg.

EMT-Enhanced

1. Establish IV access.
2. Nitroglycerin 0.4 mg SL every 5 minutes with a SBP >100 mmHg.
3. Apply 1 inch of 2% Nitropaste (15 mg) topically keeping SBP > 100 mmHg.

EMT-Intermediate / Paramedic

1. Initiate cardiac and pulse oximetry monitoring.
2. Obtain 12 lead ECG if available.
3. For patients with persistent chest pain after above measures, and/or a 12 lead ECG indicating an acute myocardial infarction, pulse rate greater than 80 and systolic blood pressure greater than 120 mmHg, metoprolol (Lopressor) 5 mg IV, may be repeated every 10 minutes up to a total of 15 mg.
4. If pain persists, consider morphine sulfate 2 mg slow IV, maintaining a SBP > 100 mmHg. May be repeated every 5-10 minutes to a total of 6 mg.
5. For patients with repeated vomiting, consider promethazine (Phenergan) 12.5 mg IV, reduce dose to 6.25 mg IV for age 70 or older.

3) Understand the basic structure and function of the local emergency response system.

All 911 calls in Charlottesville, UVa, and Albemarle are directed to the **Emergency Communications Center** located on the grounds of the University. When a call is deemed to be a medical emergency, the 911 operator asks a series of questions to determine the subject's dispatch complaint and severity. Based on these questions, the dispatcher will send an ambulance with a recommended level of training (ie does the call require an EMT Basic or an EMT Paramedic?). Also, if the call is life threatening, the dispatcher will also send for the fire department as a first responder agency.

Upon arrival the scene of the incident, the pre-hospital providers assess and treat the patient according to the Thomas Jefferson EMS Council Protocols noted above. The patients are then transported to the hospital of their choice (either

Martha Jefferson or UVa), unless the call is a major trauma, in which patients are sent to UVa. En route to the hospital, the providers contact either UVa's Medical Communications Center or Martha Jefferson's charge nurse to provide a brief description of the patient and his/her complaint. This allows the hospital to prepare to have resources available immediately for sick patients upon their arrival. For example, a patient with major trauma will have a trauma alert issued, giving the trauma team and the emergency department enough time to prepare.

4) When arriving for your shift at CARS, introduce yourself to the **crew captain**, who will be wearing a white shirt. They will assign you to an ambulance crew, please be sure to stay close to them since they will not wait for you when a call comes in. The crew captains for each crew are:

Mondays:	Captain Rose
Tuesdays:	Captain Judkins
Wednesdays:	Captain Inofuentes
Thursdays:	Captain Hamrick
Fridays:	Captain Garrett

5) Please help the crew to which you are assigned with **checking the ambulance**. This will help you understand the types of equipment CARS carries, and where they are located. In the event of a cardiac arrest, for example, if the medic asks for the suctioning, you will know where to find it.

6) When a call comes in, go to the patient compartment and **wear a seatbelt**. When operating on the street where traffic is an issue, please don a traffic safety vest. The vast majority of pre-hospital provider deaths and injuries occur because of accidents. Please protect yourself.

7) **Observe** how EMS providers assess and treat patients in the field, turn over care to the receiving facility, and document the call on the run sheet.

8) Help the crew place the **ambulance back in service** by restocking supplies and cleaning the patient compartment after each call. This really helps the crews out a great deal.

9) Help the crew make **breakfast and lunch**.

10) Ask a member to give you a tour of the other types of **apparatus** that CARS runs, such as the Water Rescue Truck, the Heavy Rescue, and the Mass Casualty Incident truck (which can accommodate over 200 patients!).