Clinical Decision-Making Regarding Transportation of Patients by Emergency Medical Technicians

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Emergency medical services (EMS) personnel are not independent medical practitioners, but they are expected to make critical decisions in the provision of emergency care.\textsuperscript{1} When presented with a patient with respiratory distress, they are expected to determine if it is more likely to be due to heart failure, pulmonary obstruction or myocardial ischemia and then implement the appropriate treatment protocol. When presented with a patient with major trauma, they are expected to determine the appropriate hospital and method of transport based upon their training and medical directives.

One important area where EMS personnel must make critical decisions is when and where patient evaluation and treatment will be started. These decisions have been described as a choice between “scoop and run” and “stay and play.”\textsuperscript{2} In some cases these interventions will be performed where EMS first encounters the patient. In others, they may be postponed until the patient is loaded into the ambulance. Once the patient is loaded into the ambulance, evaluation and treatment may be performed while the ambulance is stationary and still at the scene, or may not be started until after transportation to the hospital has begun.

There are many reasons EMS personnel may choose to delay assessment of the patient. The lighting at the scene may be sub-optimal. The patient may be located in an area that does not allow for ideal patient access, such as in a small room or a narrow space between a bed and a wall. The scene may not be completely safe. In some cases, the EMS personnel may make an initial assumption that the patient is of lower acuity and decide to delay a full assessment until in the ambulance in order to reduce on-scene time.
Once loaded in the ambulance, EMS personnel must decide whether to obtain vital signs, place monitors and possibly obtain an electrocardiogram before beginning transport or after. They may make similar decisions with regards to an intravenous line or medications. One reason to stay on scene may be to utilize the assistance of first responders and possibly supervisors. Another may be to take advantage of the stability available before the ambulance begins traveling down the road. EMS personnel may decide to evaluate and treat the patient on the way to the hospital if they perceive the patient has a critical issue that is time-sensitive and can only be addressed in the hospital or that the patient has a stable situation that does not require any emergency treatment.

Clearly there are some situations where rapid transportation and the minimization of on-scene time is essential. A patient that is bleeding to death from trauma to the abdominal or thoracic region may only be saved by emergent surgery. A difficult obstetrical case may need rapid intervention that is best provided by an obstetrician. Clearly, in cases like these, there is nothing to be gained by extensive evaluation and management on scene. EMS personnel act properly when they minimize on scene time and transport rapidly, performing most interventions on the way to the hospital. There is also a business case to be made for minimizing the time that the EMS crew is assigned to the call. The less time an EMS crew is assigned to each call, the more productive they will be.

There are many cases, however, where EMS personnel are acting wisely if they choose to do some evaluation and treatment at the scene. Since loading the patient into the ambulance may take several minutes, it is difficult to defend a decision to not measure vital signs very shortly after the initial patient encounter, and before loading the patient into the ambulance. There is good evidence that defibrillation, good airway management (with endotracheal intubation, a
supraglottic airway, or good ventilations with a manual resuscitator), and the administration of epinephrine are all important and time-sensitive interventions in cardiac arrest. There would be very few cases where EMS personnel should delay any of these procedures until loaded in the ambulance. Likewise, if a patient is unconscious and hypoglycemic, there can be few excuses that would justify not assessing and treating the blood glucose before loading the patient.

There are many time-critical decisions that EMS personnel must make. Many situations may be addressed by protocols, but EMS personnel must be well trained and ready to assess all of the factors that may impact the decisions that they must make. A decision regarding which interventions to implement before loading or transporting the patient should be primarily driven by a desire to provide the best possible care for the patient.

References


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