

fracture. If the patient protests or if resistance is felt, extremities should remain in a position of comfort. Reduction of fracture dislocations at a joint should be attempted only if vascular compromise is impending; the duration of transport is long, and the rescuer is experienced in the technique. This usually requires the base physician's approval.

A pillow, rolled-up blanket, or other material may often serve as a simple splint. Specific splinting devices include cardboard splints, inflatable air splints, the MAST[®] (military antishock trousers) garment, and traction splints. If inflatable devices are used, care must be taken to monitor distal perfusion, because a compartment syndrome may occur with swelling of the extremity or changes in atmospheric pressure (eg, during air transport). Traction splints are used primarily with fractures of the femur.

G. PROTOCOLS AND STANDING ORDERS

Protocols are guidelines designed to assist the EMT in performing tasks in a complete and orderly fashion (Figure 2-3). Because situations vary widely and protocols cannot anticipate every variable, they are not meant to be absolute and must be accompanied by training, judgment, and experience. Each EMS system follows its protocol to the training and skill of its EMTs and the needs of the local medical community.

Standing orders are express authorizations for the performance of a specific task or procedure. Under the standing order, an EMT may be authorized to perform a task or procedure without first obtaining verbal authorization by radio. Standing orders are useful when radio contact is impractical or would delay life-saving intervention (eg, CPR, defibrillation). Standing orders usually contain a clear list of circumstances under which the authorization applies (indications) and detailed instructions on the manner in which the procedure should be performed. They are signed by the physician medical director, who shares legal responsibility for the outcome.

H. COMMUNICATIONS

1. Equipment and frequencies—EMS units communicate with receiving hospitals by various methods. Three main radio systems exist: the HEAR network (in the 150-MHz range), the COR system (400 MHz), and the 800-MHz truncated system. The HEAR system is the oldest and has largely been replaced in urban areas by 800-MHz systems, which provide multiple frequencies for providers. In addition, cellular phones and landline telephones are used frequently for communications. Communication is simplest. Signals pass in only one direction at a time, and neither party can simultaneously speak and be heard. In rural areas, communica-

tion may be direct, via radio, without a relay station or ground lines.

2. Communication technique—Radio communication must provide information in a concise, precise, and easily understood manner. To facilitate speed and understanding, a common format is followed, with slight variations depending on the community. However, no one should hesitate to ask for clarification, because misunderstandings may prove fatal.

a. The initial contact—The caller always names the party being called first, followed by the caller's own identification:

"Central Hospital, this is medic 19, how do you copy?"

b. The initial response—The initial response confirms the contact in the same manner:

"Medic 19, Central Hospital, receiving you loud and clear, over."

c. The report—The caller gives a concise, orderly report containing pertinent history, physical findings, destination, estimated time of arrival (ETA), and any necessary request for instructions. It should be as brief as possible:

"Central Hospital, medic 19 en route to your location, ETA 8 minutes, with a 20-year-old male victim of multiple, small-caliber gunshot wounds to the left chest, right flank, and right thigh. Patient is lethargic; blood pressure 80, pulse 140, respirations 46. Breath sounds absent over the left chest, abdomen soft. We have an ET tube in place, 2 IVs with lactated Ringer's wide open, and MAST garment inflated. Requesting permission for needle decompression of the left chest."

d. The report acknowledgment—This acknowledgment is kept brief; only essential queries should be made:

"Medic 19, have you checked ET tube position?"

"That's affirmative. Withdrawn 2 centimeters without improvement."

"Okay, medic 19, needle thoracostomy, left chest, is approved. Will stand by for update."

e. The sign-off—After receiving an order, the field personnel should repeat it to demonstrate that it was received accurately before signing off:

"Central Hospital, understand needle thoracostomy, left chest, is approved. Stand by."

3. 10-Codes—"Ten codes" are phrases represented by 2 numbers, the first being 10. In many areas, these are used to ensure precise communication and to add some measure of privacy to the conversation. Unfortunately, few EMS personnel have all of the possible 120 codes memorized. The result is often more confusion rather than less. Because mistakes may be dangerous, the

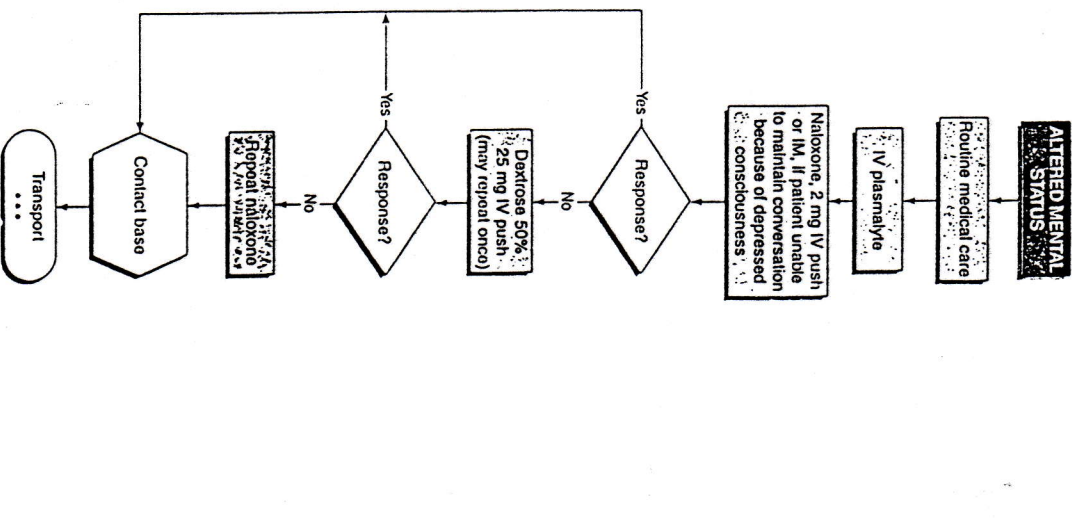


Figure 2-3. Sample protocol (in algorithmic form) for altered mental status.
Note: The sequence for administering naloxone or glucose should be based on history and physical examination at the scene.