

# EMS Best Practices

MARCH 2014

## FALL HAZARDS—MORE THAN JUST THE FALL

—By Joe Barger, MD, Medical Director Emergency Medical Services

EMS response to a patient fall is one of the most common responses in Contra Costa, accounting for perhaps 10% of all EMS calls. Most are ground level falls, and most occur in elderly patients. Despite the relatively low-energy mechanism involved with ground-level patient falls, they do represent significant potential for a number of serious patient conditions and no case should simply be considered “just a fall.”

Falls now represent around 25% of trauma activations in our county, more than doubling over the past decade. There is significant mortality associated with falls in the elderly, and given the “graying” of our baby-boomer segment of the population, it’s likely this incidence will rise in the coming years. Head trauma is the most worrisome element in elderly trauma but they also suffer a fair number of rib and spinal injuries with ground level falls as well.

Beyond trauma however, falls are also treacherous, in part because there are a large number of other causes beyond simply a mechanical fall due to tripping, poor eyesight, etc. Syncope or dizziness may be involved (generally due to cardiovascular or neurologic issues), but beyond this many falls occur because of increasing weakness related to other medical problems. Often these illnesses may not be obvious to the patient. At times we see strokes, STEMIs, sepsis and severe anemia as causes for weakness and falls, and volume loss due to vomiting, diarrhea, or poor oral intake of fluid may also be part of the picture. Medications can play an important role and can also wreak havoc with a patient’s blood pressure.

One other risk with fall patients, particularly in the elderly, is that transport may not occur and result in a delay in diagnosis of a serious issue. Patients may be stoic and may refuse transport, but it’s always important to evaluate these patients to the best of your ability. An elderly patient who falls meets our [Policy 10](#) definition of “patient” for the purposes of EMS evaluation – this is a person who has had an event that could cause significant illness or injury. Your PCR should reflect all the details of your assessment (to the extent the patient allows) and can’t be simply called a “lift assist.”

We know there is a risk to these patients, and the most common situation that a patient is transported to the hospital within 48 hours of being an “AMA” is an elderly patient with a fall. A brewing sepsis or other slowly progressing medical condition is often seen and as well, many patients simply do not have safe living conditions in their current setting – it may take more than one fall for them to realize they need help.

It’s important to have a wide perspective of the patient’s condition when a fall is involved. The absence of obvious injury doesn’t rule out a significant condition so it’s important to carefully evaluate these patients.



# ASK EMS

Do you have questions for EMS? Not quite sure who to ask? This column will help address those questions. As space permits, we will answer questions you submit. As always, for immediate response please contact EMS.

## Q: WHAT IS A CARDIAC ARREST CENTER?

**A:** Cardiac Arrest is a critical part of EMS. The calls are intense and the outcomes are dependent on many factors. Survival with a good neurological outcome is what we always strive for when we hear cardiac arrest on the call.

Hospitals designated as STEMI centers are now also Cardiac Arrest Centers because when a patient has return of spontaneous circulation (ROSC) there is a need for the same intense care as the STEMI patient without arrest. A myocardial infarction may be the cause of the arrest. These treatments may include hypothermia, cardiac catheterization, a stent or Coronary Artery Bypass Graft.

We have many interventions within our [treatment guidelines](#) to give the patient the best chance for survival, such as early defibrillation and quality CPR. Early intervention at the hospital is critically important. The hospital needs to receive an ECG as soon as possible after ROSC in order to prepare for arrival and expeditious treatment of the patient to prevent further damage to the heart.

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National EMS Week: May 18–24, 2014

## CAB OR ABC?

—By Joe Barger, MD, Medical Director Emergency Medical Services and Pam Dodson, RN, Prehospital Coordinator Emergency Medical Services

With all of our emphasis on compressions and shock in cardiac arrest due to cardiac causes, we have deemphasized airway management (CAB). However, there are still arrest cases in which attention to airway or ventilation early in the care are important. For EMS, the context of the arrest is important—history and setting may suggest an airway or respiratory problem, or an arrest from a cardiac cause.

In the situation where a patient becomes unconscious after choking, which frequently is related to eating, compressions may dislodge a foreign body and allow the airway to be cleared. Visual inspection of the airway may show a food bolus or other material that can be removed. If there is resistance to ventilation or there is suspicion of continued obstruction, laryngoscopy and use of Magill forceps may be able to relieve the obstruction. Unlike cardiac arrest that is suspected to be due to a dysrhythmia, in choking cases with continued concerns, we should not wait for 3–4 cycles of CPR before considering visualization of the airway.

In the case of drowning's, airway patency is almost never the primary problem and the CAB approach works well and should be started as soon as possible.

The emphasis on compressions in the “CAB” approach is also taught to laypersons for pediatric arrests (in an attempt to simplify training) but it's a well-known fact that the cause of cardiac arrest in infants and children is more commonly the result of choking and difficulty breathing so airway evaluation should remain a high priority in the rescuers mind.

Please send questions for future  
ASK EMS columns to:  
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