

## Safe Handoff of Care in Air/Ground Medical Transport

### **Position Statement of the Air Medical Physician Association**

AMPA Board of Trustees

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#### **BACKGROUND**

A “handoff” is defined as the contemporaneous, interactive process of passing patient-specific information from one caregiver to another for the purpose of ensuring continuity and safety of care [1]. The famed Institute of Medicine Report from 1999 entitled, “*To Err is Human: building a safer health care system*” highlighted the nearly 100,000 deaths from adverse events in the hospital [2]. That report, along with several others, identified the various types of adverse events and the large cost associated with those adverse events. Both the Joint Commission on Accreditation of Hospital Organizations and the Department of Defense found communication failures as the “root cause” for 60-70% of sentinel events, thus the leading cause categories contributing to adverse events [1].

There are aspects of communication failure that impact the air medical transport industry. Air/ground transport crews often operate under pressures of time, patient acuity, and distraction, each of which impacts the quality and accuracy of the patient handoff. As such, patients undergoing transport are at risk for adverse events if our medical transport crews fail to communicate effectively at the time of transition of care.

#### Adverse events and their cost

Those in the medical profession spend their careers trying to improve the health of the patient(s), though adverse events may result in 100,000 deaths per year. Through medication errors, missed diagnoses, or surgical errors may contribute to these staggering mortality numbers, the IOM report identified failures in communication as one of the causes of errors and mortality. The scope of communication errors is large, with 60-70% of sentinel events occurring downstream of communication failures.

The financial impact of adverse events is difficult to assess, and even more difficult to discern are the costs of communication failures. A Harvard Medical Practice Study estimated a \$25 billion

dollar annualized cost to the nation for adverse events. Based on the Department of Defense and Joint Commission estimates of the frequency of communication failures, the largest portions of these multi-billion dollar estimates could be logically attributed to failed communication.

#### Similar physician handoffs

There are growing data supporting the patient harm caused by inadequate patient handoffs. A 2008 resident survey showed that 57% of respondents reported at least one patient being harmed due to a handoff problem; 12% of which experienced harm that was "major" [3]. Aside from harm reaching the patient, inaccurate handoffs may also lead to repetitive work, inaccurate management plans, and delayed discharges [4].

#### Conclusion

Communication failures are common and associated with patient harm and are a tremendous financial burden for the health care industry. As such, the medical transport industry can no longer overlook the critical need for a systematic approach to the communication surrounding assumptions of care at referral institutions/scenes and relinquishment of care to the receiving institution.

### **AMPA POSITION STATEMENT**

1. Air/Ground Medical Transport Teams should incorporate education around handoff of care into training competencies for all medical/communication center team members.
2. Air/Ground Medical Transport Teams should institute a handoff practice process guiding the transition of care for patients between:
  - a. The referring institution/scene EMS team *and* the air/ground medical crew.
  - b. The air/ground medical crew *and* the receiving institution.
3. This handoff process should provide information that is accurate and up-to-date and should be provided in a distraction-free and standardized fashion.
4. Air/Ground Medical Transport Teams should collaborate with emergency medical services personnel, emergency department staff, inpatient staff, and intensive care unit staff to define the components of the individual handoff in a multidisciplinary fashion.

## References:

1. (Cited 2011 October 4); Available from [www.jointcommission.org](http://www.jointcommission.org).
2. Kohn L, Corrigan J, Donaldson MS. *To err is human; building a safer health system*. National Academy Press, Washington D.C., 2000 xxi, page 287.
3. Kitch BT, et al. *Handoffs causing patient harm: a survey of medical and surgical house staff* Jt Comm J Qual Patient Saf, 2008. 34(10); 563-70.
4. McSweeney ME, et al. *Patient handoffs: pediatric resident experiences and lessons learned*. Clin Pediatr (Phila), 2011. 50(1):57-63.