

To the Editor:

Practicing emergency procedures on recently deceased patients has been advocated as an ethical and effective method of teaching and maintaining proficiency in life-saving techniques used by emergency medical services (EMS) providers.¹⁻³ Others, however, have questioned the propriety of such a practice, particularly without explicit consent.^{4,5} One survey indicated that paramedics were more likely than were emergency department personnel to object to such practices.⁶ We surveyed a cross-section of emergency providers that attended a conference on cardiac resuscitation concerning their experience and attitudes regarding performing procedures on recently deceased patients (RDP).

Sixty-three of 70 persons completed the survey. Of the respondents, 25% were paramedics, 32% nurses, 35% physicians, and 8% emergency medical technicians (EMTs). Thirty-six percent practiced in prehospital EMS, 62% in an emergency department, and one person was an administrator. The majority had been in practice for at least one year (94%), and 72% have practiced for more than five years.

We inquired as to the number of respondents who actually had performed endotracheal intubation on patients, and found that 37 of 63 (68%) had performed at least one intubation in the past year. Of these, 31 had intubated more than five times during this time. Twelve persons never had intubated. We then questioned if they ever had practiced or observed another person performing intubation on a recently deceased patient (RDP). Fifty-four percent (34/63) had viewed someone practicing intubations on recently deceased patients (RDP), and this occurred primarily in an emergency department (ED) setting. Sixteen respondents actually had practiced endotracheal intubations on a patient who had been pronounced dead.

We also inquired as to whether EMS providers either had performed or observed another health-care provider perform other emergency procedures on recently deceased patients (RDP). The results were as follows:

	Performed n (%)	Observed n (%)
Nasogastric Tube	9/63 (14)	9/62 (14.5)
Peripheral Intravenous Access	5/63 (8)	12/62 (19.4)
Central Venous Access	8/63 (13)	18/62 (29)
Intraosseous Needle	3/63 (5)	7/62 (11)
Venous Cutdown Needle	2/63 (3)	8/62 (13)
Cricothyrotomy Surgical	3/63 (5)	3/62 (5)
Cricothyrotomy	1/63 (1.5)	2/61 (3.3)
Pericardiocentesis	8/63 (13)	15/62 (24)
Chest Tube	4/63 (6)	9/62 (14.5)
Thoracotomy	1/63 (1.5)	5/62 (8)

Several questions were posed to assess the EMS providers' attitudes toward obtaining consent from family prior to practicing on recently deceased patients (RDP). We found that 40% (24/61) believed consent should be obtained for any procedure contemplated, whereas, 16% felt consent never was required. The remaining 27 (44%) indicated that consent was required for certain procedures.

In general, we found that the more invasive a procedure was, the greater the likelihood the respondent would indicate that consent was necessary. For example, of those who thought that consent might sometimes be necessary, only two of 28 persons (7%) felt consent was required for practicing intubations, but 25 of 28 (89%) stated consent was required for thoracotomy. Interestingly, 13/28 (46%) and 9/28 (32%) felt consent was not necessary for the invasive procedures, venous cutdown and chest tube placement respectively. It is notable that very few emergency departments have written policies governing the performance of these practices.^{4,6}

The final issue related to the emergency providers' willingness to give consent for procedures on their own recently deceased family members. Twenty-one (34%) would refuse to authorize consent for any procedure. Thirteen (21%) would consent for all procedures, and the remaining 45% would consent to selected procedures. This compares with several recent studies that prospectively have examined the likelihood of obtaining consent from surviving family members to practice emergency procedures. Olsen et al obtained consent for postmortem surgical cricothyrotomy from 39% of surviving family members,⁷ and McNamara et al demonstrated that 59% of families approached, consented to the practice of wire-guided retrograde intubation.⁸ Surprisingly, the current survey group, consisting of emergency medical providers, would be less willing to permit similar procedures to be performed on their own deceased family member. Only 27% (17/63) and 41% (26/63) would allow a surgical cricothyrotomy or needle cricothyrotomy respectively. Once again, the more invasive the procedure, the more likely the respondent would decline to give consent.

Several observations can be made from this survey. First, a significant proportion of EMS providers either have performed or witnessed others practicing procedures on recently deceased patients (RDP). Secondly, a large percentage of respondents felt that consent should be required, at least occasionally, prior to practicing procedures; a similar percentage of respondents would be unwilling to give consent for a recently deceased family member. Finally, 40 of 63 respondents (65%) agree that practicing procedures on recently deceased patients (RDP) is an acceptable method of teaching and maintaining emergency skills for EMS providers. We believe that this issue is an appropriate area for concern and debate within the EMS community.

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Correction

A misprint occurred in "Early Predictors of Sepsis in the Motor-Vehicle Crash Trauma Victim" by Jeanette K. Previdi, RN, BSN, MPH, CEN, C. Gene Cayten, MD, MPH, Daniel W. Bryne, MS, published in Vol. 11, No.1. The corrected abstract is as follows:

Abstract

Introduction: Sepsis is a major cause of late morbidity and mortality in the victim of trauma. Currently, there is no method that is clinically practical and accurate for predicting the occurrence of sepsis in trauma victims.

Methods: Data were collected on 3,759 motor-vehicle crash victims from 16 hospitals during a 4 1/2 year period. Retrospective analysis was done to examine the relationship of patient and injury factors known within the first 24 hours of admission on the development of sepsis.

Results: Sepsis developed in 154 patients (4.1%) who had a mortality rate of 17.5%. Significant early predictors of sepsis included: 1) certain pre-existing conditions; 2) blood transfusion required; 3) seven or more injuries; 4) Glasgow Coma Scale score <10 and hypotension; 5) major blood vessel injury; 6) head trauma; 7) internal injury of the chest or abdomen; 8) spinal-cord injury; and 9) certain fracture types.

Conclusions: These predictors might help target high-risk patients and, thus, promote earlier and more effective treatment for those patients. **Prehospital and Disaster Medicine;11(1):27-36.**

Prehospital and Disaster Medicine regrets the error.