Excerpta Medica

The American Journal of Surgery

The American Journal of Surgery 191 (2006) 183–190
Scientific papers–American

Do not roll the videotape: effects of the health insurance portability and accountability act and the law on trauma videotaping practices

Shannelle Campbell, M.D., M.P.H.[a], Julie Ann Sosa, M.A., M.D.[a], Reuven Rabinovici, M.D., F.A.C.S.[a], Heidi Frankel, M.D., F.A.C.S.[b,*]

[a]*Department of Surgery, Yale University School of Medicine, New Haven, CT, USA*
[b]*UT Southwestern Medical Center, Division of Burn, Trauma, Critical Care, 5323 Harry Hines Blvd. E 5-514, Dallas, TX 75390, USA*

Manuscript received April 12, 2005; revised manuscript July 29, 2005

Presented at the 18th Annual Scientific Assembly of the Eastern Association for the Surgery of Trauma, January 10–15, 2005

Abstract

Background: We hypothesized that trauma video practices would be affected as a result of Health Insurance Portability and Accountabilty Act (HIPAA) enactment.
Methods: A survey was distributed electronically to coordinators and/or directors of level 1 trauma centers. Centers were queried on demographics, trauma video use, and reasons for changes, if any, in their video practice patterns. Descriptive statistics and chi-square analysis were employed.
Results: Survey response rate was 75%. Prior to HIPAA, 58% of responding trauma centers used video compared to 18% now. On a Likert scale of 1–5, video analysis rated 3.80. For those using video currently, the most common purposes are education (91%) and quality assurance (83%). HIPAA has affected the way video is used at one third of these centers. Ten percent receive institutional review board approval for videotaping, 35% get patient consent, and more than half report capturing a poor patient outcome on tape. The most commonly cited reasons for stopping video use were HIPAA and legal concerns about patient privacy, consent, and discoverability (79%). Scarce resources were, in part, to blame at 70% of centers, while video technology was found to be ineffective at only 32%.
Conclusions: A minority of level I trauma centers currently use video, although it is effective according to users. HIPAA and medicolegal concerns have affected its use at some centers and contributed to its abandonment at others.

Keywords: HIPAA; Medicolegal; Video recording; Videotaping; Performance improvement; Level I trauma center

Video analysis of trauma resuscitations can be a valuable educational and performance improvement tool. Video has been used to examine compliance with the use of universal precautions, general resuscitation algorithms, identification of the command physician, success of endotracheal intubation, and quality of patient-family-nurse interactions among others [1–10]. Invariably, these studies, documenting 15 years of experience in analyzing trauma resuscitations, underscore the value of videotaping in teaching and quality assurance [11–14].

There have been growing concerns regarding the most effective use of video analysis in the trauma setting, particularly in "mature" centers with long-established care algorithms. In 1999, Ellis et al conducted a survey of videotaping practices in trauma centers of the 10 most densely populated states to address these issues [15]. The authors concluded that resource constraints more than medicolegal concerns impeded implementation and continuation of a videotaping program. Still, approximately one third of trauma centers surveyed used video analysis. However, in the interim, hospitals have been mandated to address issues of patient confidentiality with the enforcement of the Health Insurance Portability and Accountabilty Act (HIPAA) of 1996 and with growing medico-

* Corresponding author. Tel.: +1-214-648-5469; fax: +1-214-648-2213.
E-mail address: heidi.frankel@utsouthwestern.edu

0002-9610/06/$ – see front matter
doi:10.1016/j.amjsurg.2005.07.033

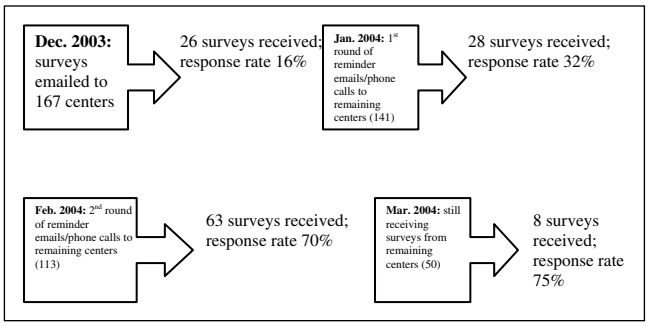

Fig. 1. Timeline of survey conduction.

legal concerns [16]. We hypothesized that trauma video practices would be affected as a result.

Methods

A survey instrument (Appendix 1) was distributed nationwide by electronic and conventional mail to the trauma program directors and/or coordinators of level I trauma centers. E-mail addresses for trauma coordinators and directors were found using Internet searches and directory searches on medical school and hospital websites. Nonrespondents were contacted by telephone and received a second round of mailings.

Level I trauma centers in the Unites States were identified by the Trauma Information Exchange Program (TIEP) that is maintained by the American Trauma Society. TIEP was established in 2000 in collaboration with the Johns Hopkins Center for Injury Research and Policy. The TIEP maintains an inventory of trauma centers in the United States, collects data, and develops information related to the causes, treatment, and outcomes of injury and facilitates the exchange of information among trauma care institutions, care providers, researchers, payers, and policy makers [17]. For the purposes of this study, all trauma centers in Maine (which have no "level" designation) were included.

The survey instrument consisted of 28 questions regarding demographic information, use of video analysis, and reasons for discontinuing taping. For analysis, trauma centers were designated low volume if they treated fewer than 1000 patients annually. According to the Area Resource File (published by the United States Department of Health and Human Services, February 2002), there are 4 geographical regions in the United States: Northeast (ME, VT, MA, NH, CT, RI, NY, NJ, PA); Midwest (OH, MI, IN, IL, WI, MN, IO, MO, KS, NE, SD, ND); South (DE, MD, DC, VA, WV, NC, SC, GA, FL, KY, TN, MS, AL, AR, LA, TX, OK); and West (MT, WY, CO, NM, AZ, UT, ID, NV, WA, OR, CA, AK, HI). Survey respondents were divided into regions using this model.

The value of videotaping was determined using the Likert scale with 1 defined as not valuable and 5 as extremely valuable. Descriptive statistics and chi square analyses were used. A P value $\leq .05$ was considered to be statistically significant. Stata 7.0 statistical software was used for data analysis (Yale University, New Haven, CT).

This study received exempt status from the Yale University School of Medicine Human Investigations Committee.

Results

One hundred seventy-three level 1 trauma centers were identified through the TIEP. Valid e-mail addresses were found for 167 centers; surveys were emailed to these centers. One hundred and twenty-five completed surveys were received for a response rate of 75% as noted in Fig. 1. However, not all surveys were received fully completed; there were several partially completed surveys that were returned.

Trauma center demographics

Trauma center demographics are depicted in Table 1. Most respondents practiced at a state-designated, high-volume, Midwestern and Southern trauma centers. This distribution is not different from all centers reported in TIEP ($P = .53$).

Video users

Centers were divided into 3 categories based on their patterns of video analysis use: centers that currently use video analysis (n = 23, 18%), centers that have never

Table 1
Trauma center demographics of video users by status (current, former or never) versus trauma centers identified in the TIEP by percentile

	Current, n = 23 (18%)	Former, n = 50 (40%)	Never, n = 52 (42%)	P vs. current
Designation/verification				
ACS	48	38	35	.17
State	35	50	33	
ACS & state	17	8	23	
No response	0	4	9	
Annual trauma volume				
Low volume				.12
501–1000	13	12	2	
High volume				
1001–2000	43	58	46	
>2001	39	28	46	
No response	5	2	6	
No. of trauma faculty				
1–5	52	70	65	.39
6–10	43	24	21	
>10	0	4	2	
No response	5	2	12	

ACS = American College of Surgeons.