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Evaluation of the Use of the TASER and Elevated Force to Control Workplace Violence in a Health Care Environment

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The average number of SAR incidents per park visitor has decreased from 9.4 incidents per 100,000 visitors in the 10 years prior to 1998 to 7.6 per 100,000 visitors in the six years following ( $p=0.02$ ).

**Conclusions:** The Grand Canyon National Park PSAR program seems to have decreased the incidence of visitor illness and injury, thereby decreasing the need for costly and potentially dangerous SAR responses.

#### 15 A Needs-Assessment Questionnaire of Driving Fitness in Older Adults Presenting to the Emergency Department

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**Background:** Older adults (65 years and older) represent the fastest growing segment of the population. It is projected that by the year 2024 one in four drivers will be older adults. The Emergency Department (ED) may serve as a site for identifying older adults that need driving fitness evaluation and/or related intervention.

**Objective:** Conduct a needs assessment for driving fitness-related issues in older adults presenting to the ED.

**Methods:** A cross-sectional survey was conducted with English-speaking older adult patients presenting to a busy Southern California Level 1 Trauma Center and ED over a 10-month period starting February 2006. Inclusion criteria included medically stable older adults. Exclusion criteria included critically ill patients. Data was analyzed by using univariate descriptive analysis.

**Results:** Out of the 332 patients surveyed, 186 were 65-74 years, 109 were 75-84 years, 35 were 85 years or older and the age for two patients were not recorded. Thirty-six patients had never driven and were only asked for demographic information. When the 296 patients who had driven were asked who they consider the most qualified person to give driving advice, 33% considered their family/spouse, 24% themselves, and 14% the Department of Motor Vehicles. Only 1% felt the ED physician was the most qualified person to give driving advice. Among the 196 who currently drive, 61% would rate their driving confidence to be at 10 out of 10, 83% would limit their driving, 77% would stop driving if asked by a physician, and 43% would like the ED to refer them for further help with their driving.

**Conclusion:** Although the majority of patients were highly confident in their driving ability, nearly four out of five patients reported that they would be willing to limit and stop driving per physician recommendation. The discrepancy between the patients' confidence and their willingness to accept driving advice from physicians provides an opportunity for further driving-fitness research.

#### 16 Patient Satisfaction with Routine Rapid HIV Testing in an Urban Emergency Department Using Streamlined Procedures and Pre-Existing Staff for Testing and Counseling

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**Objective:** To determine patient satisfaction with a voluntary rapid HIV testing program in an urban emergency department (ED).

**Methods:** Prospective observational study conducted in an urban academic ED. Between April 1, 2005 and March 31, 2006, nursing-initiated HIV screening was offered to eligible patients, beginning with the triage nurse. Exclusions were: age <12 years; acute psychiatric or medical illness and language barrier. Pre-test HIV information and counseling was provided in a brochure. Nurses obtained bedside written informed consent, performed the test (OraQuick Advance, oral swab) and disclosed negative results. For positive patients, emergency physicians or HIV counselors performed counseling and arranged follow-up care. Testing was performed and negative results were disclosed in both private and non-private clinical areas (curtained rooms, hallways), while positive results were disclosed in private rooms. After result disclosure, a satisfaction survey was administered to patients testing preliminary positive and to a convenience sample of patients testing negative. Patients were asked whether or not they felt HIV testing and disclosure was done in a private manner and to rate their overall satisfaction with testing on a 5-point scale.

**Results:** 6,381 HIV tests were performed with a 1% positivity rate. Fifty-seven of the 65 preliminary positive patients completed the survey (88%). One-hundred and five of the 178 patients testing negative who were approached completed the survey (59%). One-hundred percent (57/57) of patients testing preliminary positive and 99% (104/105) of those testing negative reported overall satisfaction with testing ( $p=0.50$ ); 96% (55/57) of patients testing preliminary positive and 91% (96/105) of those testing negative felt that their results were disclosed in a private manner ( $p=0.22$ ).

**Conclusions:** Perception of privacy was maintained despite testing and disclosure of negative results in a variety of clinical areas. Overall, patients are satisfied with streamlined ED testing procedures.

#### 17 Evaluation of the Use of the TASER and Elevated Force to Control Workplace Violence in a Health Care Environment

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**Background:** Violent behavior by patients is one of many occupational hazards faced by health care workers. Emergency department (ED) personnel are at high risk for patients carrying weapons, or exhibiting disruptive behavior or psychotic disorders. When systematic approaches to violent persons do not work, public safety officers (PSO) require additional means of elevated force to control dangerous behavior. The use of the electrical stun gun (TASER) offers an option that is more effective than baton but less lethal than a firearm. Its use has recently been criticized because of the association with deaths in custody.

**Methods:** We describe an approach to control workplace violence in a health care environment that includes staff education for early identification of potentially violent persons and initial approaches but allows for the use of TASER in select situations. We report the incidents of use of force in a Level 1 trauma center university hospital with 40,000 ED census.

**Results:** There were 107 PRE (12 month) and 149 POST (24 month) uses of force. During the POST, 92% were in clinical, 5 % in general public and 3% in exterior areas. Most involved patients (93%). In clinical areas, 56% were in the ED, 25 % inpatient and 11% outpatient areas. There were 30 displays and seven additional uses of the TASER, including two touches and five firings of probes, 77% for male subjects and 70% for psychiatric or ED patients. All displays or uses were reviewed in detail by multidisciplinary group and determined to be appropriate. There were no serious injuries in either safety personnel or patients that resulted from the use of the TASER. PSOs determined that the display of the TASER was able to de-escalate violent situations without the use of more elevated force.

**Conclusions:** A comprehensive approach to workplace violence that allows for the selected use of the TASER and requires mandatory reviews of all uses can be effectively implemented to help to control dangerous situations in health care environments.

## 18 Risk Perception of US-Mexico Border Crossers

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**Background:** This study focused on risk perception of US-Mexico border crossers and builds on current research programs at The University of Arizona. No published studies have addressed specific risk processes (defined as perceived risk, intra-border crosser risk communications, Mexican government originated risk communications, and risk control actions) in US-Mexico border crossers.

**Objectives:** This project seeks to describe, analyze, and interpret border-crosser risk processes; and develop a

multidimensional model to describe border-crosser perceived risk and risk communications. Additionally, the main motivation for crossing will be investigated.

**Methods:** The project used rigorously coded qualitative but anonymous interview data obtained from up to 10 recent border-crossers to elicit information about domains of perceived risk and risk communications that can be incorporated into a proposed model and used for future research and refinement of border-crosser behavior models. Because of the qualitative design, thematic saturation occurred before 10 subjects were entered. Interview data were translated from Spanish to English and data extracted in an attempt to reach thematic saturation.

**Results:** A model of risk processes was created and suggestions for future behavioral interventions to reduce border crosser heat and injury related morbidity and mortality are presented.

**Conclusions:** Risk perception of US-Mexico border-crossers can be modeled using a qualitative methodology. Themes derived that were most important included desires of border-crossers to be re-united with family members living in the US regardless of risk and the state of limbo of recently deported border crossers.

## 19 Behaviors that Influence Crash Injury Risk in Latino Adolescent Males: Analysis of the 2005 National Youth Risk Behavior Survey (YRBS)

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**Objective:** Motor vehicle crashes remain the leading cause of death for teens. Risk-taking behavior is known to contribute to fatal crashes in young drivers and occupants. The objective of this study was to analyze behaviors that influence the risk of crash injury in Latino adolescent males.

**Method:** The Youth Risk Behavior Survey (YRBS) is a multistage cluster sample of students in U.S. public and private high schools, with oversampling of Hispanics. Among other risk behavior topics, three questions are directly related to motor vehicle occupant crash injuries: use of seat belts, riding with a driver who had been drinking, and driving when drinking. Analysis was restricted to Hispanic and non-Hispanic Whites age  $\geq 15$  ( $n=8,520$ ). Data were analyzed using Stata survey procedures that account for survey weights and clustering. Differences between groups were tested using linear regression, controlling for age, with post-estimation tests to compare Hispanic males to Hispanic females and to non-Hispanic White males.

**Results:** Thirteen percent of male Hispanics in this age group reported that they rarely or never wore a seat belt. The percentage of those who rarely or never wore a seat belt was 4% higher for male Hispanics than for female Hispanics.