was recorded via phone interview. Results: 30 subjects were enrolled, S1-13/ S2-17, in the study. Mean pain scores: 0 min [S1=7.19, S2=6.47], 24hrs [S1=3.62, S2=3.53], 72hrs [S1=2.08, S2=2.86]. Repeated measure ANOVA showed S1 to have significantly more pain reduction at 72 hours ($F=124$, $p<0.001$). Mean NSAID use: 24hrs [S1=1.31, S2=1.2], 72hrs [S1=3.15, S2=2.60]. Repeated measures ANOVA showed significantly less ($F=39$, $p<0.001$) NSAID use at 72 hrs by S2. S1=placebo group, S2=experimental group. Conclusions: By using less of the prescribed NSAIDs, patients in the experimental group displayed a more valid reduction in pain vs. placebo group, who reported better pain relief via pain scale. Both groups showed a significant reduction in pain over time while using on average less than (1) NSAID per day. Iontophoresis provides a safe, effective alternative to NSAID therapy in the management of acute soft tissue injuries in the ED.

☐ **RISK OF RADIATION EXPOSURE TO EMERGENCY DEPARTMENT PERSONNEL FROM PORTABLE RADIOGRAPHS.** E.A. Panacek, M. Nazari, L. Kroger, D. Shelton, EM, UC Davis, Sacramento, CA.

Objectives: Portable radiographs are important in the evaluation of critically ill patients in the emergency department (ED). Most trauma patients are evaluated with portable x-rays. Our aim was to investigate whether staff is at risk of significant exposure to radiation due to scatter from portable radiographs performed in a busy ED. Design and Setting: This is a prospective observational cohort study performed during three consecutive months in the Emergency Department at UC Davis Medical Center, a busy Level I trauma center. The study was approved by the IRB. Intervention and Measurements: Volunteer attendings, nurses, and resident physicians wore dosimeter badges during all shifts throughout the study period. Twelve stationary dosimeters were placed in locations in the ED including the resuscitations bays where most portable radiographs are performed. Standard protection practices were used by the staff. Dosimeters were collected monthly and sent to the manufacturer for analysis. Results: During the study, 1464 portable x-rays were performed in the resuscitation areas of the ED. Dosimetry analysis from badges worn by staff registered an average of zero mrems (1/1000 roentgram equivalent in man) of scatter radiation per month. Stationary dosimeters placed in the ED showed less than 19 mrem for the highest exposure areas, and zero mrem for the lowest. Extrapolating these data to a hypothetical staff member who stands for one year in an area with the highest level of scatter radiation, the exposure would be 260 mrem (0.03 mrem/hr over 360 days), well below toxic levels. Conclusions: The level of radiation exposure to the staff in our ED is much less than the recommended allowable public exposure of <100 mrem/ year, or 2 mrem/hr. This is also well below the maximum allowable occupational exposure of 5000 mrem/year set by the nuclear regulatory commission and state law. We conclude that radiation exposure is not a significant occupational hazard in our ED. Our current standard precautions adequately protect staff from occupational exposure.

## Neurologic & Psychiatric

☐ **POOR ASSOCIATION BETWEEN HYPERGLYCEMIA AT ARRIVAL AND CLINICAL OUTCOMES IN ACUTE STROKE PATIENTS TREATED WITH TISSUE-TYPE PLASMINOGEN ACTIVATOR.** W.J. Meurer, P.A. Scott, A. Caveney, R. Silbergleit, Emergency Medicine, University of Michigan, Ann Arbor, MI.

Introduction: Hyperglycemia (HG) is common in acute ischemic stroke and is associated with poor outcomes. The effect of HG on outcomes in tPA-treated patients is not well described. We hypothesized that in these patients, HG remains an independent risk factor for death, disability, and complications. Methods: Retrospective analysis of 273 consecutive tPA-treated acute stroke patients at 4 hospitals between 1996 and 2005 was performed. Outcomes included survival to, and disability at, time of hospital discharge; any intracerebral hemorrhage (ICH) and symptomatic ICH (sICH). The odds ratio (OR) for each adverse outcome per 100 mg/dL increment in serum glucose was calculated by logistic regression adjusted for age, NIHSS, and tobacco abuse. Results: The mean glucose value was 131 mg/dL (range 62-507). The associations between elevated glucose and adverse clinical outcomes in tPA-treated patients did not reach statistical significance. Trends were stronger for an effect on death and disability than on sICH or ICH. Conclusions:HG at the time of presentation in ischemic stroke patients treated with tPA was not associated with a significant difference in outcomes. An association between pre-treatment glucose level and adverse outcome in tPA-treated stroke patients may be present but weak. Further study of these associations is warranted prior to organization of a trial of early glucose lowering therapy. Reprint with permission from Elsevier Inc. Acad Emerg Med 2007;14(Suppl 5):S30–1.

| Outcome | Odd Ratio | 95% CI | P |
|---|---|---|---|
| Death | 1.71 | 0.92-3.13 | 0.08 |
| Disability | 2.00 | 0.78-5.09 | 0.15 |
| sICH | 1.16 | 0.43-3.13 | 0.70 |
| ICH | 1.19 | 0.53-2.68 | 0.68 |

☐ **THE SIGNIFICANCE OF LABORATORY TESTING FOR THE MEDICAL CLEARANCE OF PSYCHIATRIC PATIENTS PRESENTING TO THE EMERGENCY DEPARTMENT.** J. Wang, M. Amin, E. Kercher, Kern Medical Center, Bakersfield, CA.

Objectives: This is a prospective study of psychiatric patients presenting to the Emergency Department (ED) designed to determine the necessity of routine laboratory studies for medical clearance. The hypothesis of this study is that patients presenting with a psychiatric chief complaint, with a documented history of psychiatric disorder with a normal history and physical exam, do not need routine laboratory studies for medical clearance. Methods: A prospective survey of 375 psychiatric patients presenting to Kern Medical Center ED was performed. Patients with psychiatric complaints and a documented psychiatric history were entered into the study by a resident ED physician. Vital signs, pertinent history, physical exam, and findings indicating need for laboratory testing