

## **Prevention of Dental Injuries in the Operating Room: The Dental Risk Recognition Injury and Prevention Program (DRRIPP)**

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**Introduction:** Dental injury is the most common complication of anesthesia, with a reported incidence of 0.02-0.7%, and is responsible for greater than one-third of all medico-legal claims against anesthesia. The Dental Risk Recognition and Injury Prevention Program (DRRIPP) is an integrated internet-based/part-task training educational program that focuses on identification of patients at risk, prevention of dental injury through anesthetic approach modification, and demonstration of safe use of dental injury protective devices which decrease risk.

**Methods:** Online educational modules, assessment tools, evaluations tools, and training videos designed to be used in conjunction with part task simulators to train all University of Pittsburgh Medical Center (UPMC) anesthesia providers in dental injury prevention is utilized on the Blackboard LMS software system and the Internet-Based Studies in Education and Research (ISER) websites.

**Results:** The alpha version of the course was implemented this past fall. All anesthesia providers (anesthesiologists, residents, CRNAs, SRNAs) throughout the UPMC health system will be trained via the modules which will be incorporated as part of the training curriculum or as a component of annual compliance credentialing. Baseline incidence rates of dental injury within UPMC system facilities have been collected over the past two years and will continue to be followed through implementation of the program. Incident dental injury rates will be prospectively evaluated over the two year post implementation period with change in dental injury rate compared for the pre and post implementation periods.

**Discussion:** Despite the prevalence of dental injury, to our knowledge this is the first prospective, health system wide, web and simulation-based educational intervention for the prevention of dental injury. We have designed the program to be intuitive and practical which will support broad healthcare adoption. Preliminary support for development of this project was obtained through the University of Pittsburgh/UPMC Health System. Implementation of DRRIPP will provide education to all anesthesia providers within the health system and we hypothesize that our efforts will decrease the rate and consequences of dental injury to the benefit of patients and anesthesia providers alike.