Incidence and characteristics of needle-stick injuries amongst medical trainees at a community teaching hospital

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Objective: There were 69,000 reported needlestick injuries in Canada in 2006. These injuries expose health care workers to blood borne pathogens such as HIV, hepatitis B and hepatitis C, as well as significant psychological stressors. Our main goals are to understand: 1) The incidence of needlestick injuries among medical trainees at Toronto East General Hospital. 2) The distribution of needlestick injuries across the medical specialties and to identify high-risk specialties. 3) The differences in the rate of needlestick injuries across levels of training. 4) The incidence of unreported needlestick injuries and 5) The reasons for under reporting of needlestick injuries.

Methods: The study conducted is a mixed quantitative/qualitative survey questionnaire among clinical clerks, residents, and post-graduate fellows at TEGH. In total, there are 840 potential respondents, as of February 23, 2015. We expect to recruit more participants as they exit their rotations at TEGH during the coming academic year. Trainees are invited to participate in our 16-question online anonymous survey that assesses demographics, characteristics of their needlestick injuries, and post-exposure prophylaxis actions taken. A needlestick injury is defined as penetrating injury with needles or other sharp instruments that were contaminated with potentially infectious patient material. The survey is created and distributed using Fluid Surveys.

Results: Thus far, 159 trainees at TEGH have responded to our survey (19% response rate). 1 out of 6 respondents in obstetrics and gynecology reported having at least one needlestick injury (4 separate injuries). In total, 45 respondents reported having at least one injury (28%). 96 total injuries occurred at TEGH, representing an average of 2.2 injuries in each of those injured. Respondents indicated that the injuries remained unreported on 21 occasions. Only 17 needlestick injuries were reported to occupational health. Furthermore, 69 respondents reported no needlestick handling training at all, and 16 reported feeling like training received was inadequate.

Conclusions: Needlestick injuries pose a significant risk to medical trainees at TEGH. There is a lack of reporting incidences to Occupational Health and Safety, and a lack of training on how to handle sharps effectively. By understanding the areas of highest risk and the reasons for non-reporting, we can target the high-yield areas for improvement and create a task force to design effective strategies to reduce incidence rates, including education, engineered instrument safety measures, and promotion of reporting incidences.

Notes:

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