

# Needlestick Injuries Common Among Medical Students

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**December 3, 2009** - Needlestick injuries and underreporting of these injuries are common among medical students, according to the results of a survey study reported in the December issue of *Academic Medicine*.

"Medical students have underdeveloped surgical skills and are at high risk of needlestick injuries," write Giriraj K. Sharma, MS, from the George Washington University School of Medicine and Health Sciences, Washington, DC, and colleagues. "Needlestick injuries can result in chronic infection, social stigma, and long-term disability. In addition, a needlestick can lead to significant psychological stress for the medical student and his or her loved ones."

At 17 medical centers, recent medical school graduates enrolled in a surgery residency were surveyed about needlestick injuries that occurred while they were in medical school. Data were collected concerning the circumstances, cause, and reporting of needlestick injuries.

Of 699 residents who responded to the survey, 415 (59%) said they had a needlestick injury while they were a medical student. Among those 415 respondents, the median number of injuries was 2 (interquartile range, 1 - 2). Most of these needlesticks were accidentally self-inflicted and occurred in the operating room when the student felt rushed.

Compared with respondents who did not sustain a needlestick injury in medical school, those who did were more likely to have a needlestick injury during residency (odds ratio [OR], 2.57; 95% confidence interval, 1.84-3.58).

Of 89 residents who experienced their most recent needlestick injury while they were in medical school, nearly half (42 [47%]) did not report it to an employee health office, thereby foregoing being evaluated for exposure to HIV or hepatitis C virus and the need for prophylaxis. However, 92% of respondents said they reported the needlestick if the patient was at high risk of having a blood-borne infection.

"Medical schools are not doing enough to protect their students and hospitals are not doing enough to make medical school safe," senior author Martin A. Makary, MD, MPH, from Johns Hopkins University School of Medicine in Baltimore, Maryland, said in a news release. "We, as a medical community, are putting our least skilled people on the front lines in the most high-risk situations. Most trainees are still forced to learn to sew and stitch on patients, which puts both providers and patients at risk."

Limitations of this study include that the respondents were limited to current surgery residents, who were more likely to have handled needles in medical school than medical students in general. Other limitations include recall bias, lack of data on the specific type of rotation in medical school when these injuries occurred, and lack of data on outcomes of the needlestick injury, including serologic testing for HIV and hepatitis infection.

"Needlestick injuries and underreporting of these injuries are common among medical students and place them at risk for hepatitis and human immunodeficiency virus," the study authors conclude. "Strategies aimed at improving reporting systems and creating a culture of reporting should be implemented by medical centers."

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