Needlestick Injuries Among French Medical Students

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A B S T R A C T

Although the risk of human immunodeficiency virus (HIV) infection through occupational exposures to blood has received considerable attention,1 relatively few studies have addressed blood exposure accidents (BEAs) among medical students.2-7 Guidelines for preventing needlestick injuries and administering postneedlestick HIV prophylaxis are available,8 but these guidelines may be unfamiliar to medical students. This study investigates BEA exposure, BEA reporting, and use of universal precautions in a population of French medical students.

Methods

An anonymous questionnaire was administered to medical students in the fourth, fifth, and sixth years of training at Nice University, France. Students answered questions regarding the use of gloves, handling of sharps, and personal exposure to needlestick injuries (BEAs). Information on risk reduction behaviors, number of BEAs, BEA reporting, and BEA management was collected. Data were analysed with Epi-Info 6.04a and BMDP software.

Results

Of 237 registered students, 200 (84%) completed the questionnaire. The overall prevalence of BEA exposure was 24%, with 37% of sixth-year students reporting at least 1 BEA. The mean number of BEAs per student was 1.4. Wound suturing and arterial puncture for blood gas studies accounted for 58% and 20% of BEAs, respectively. The remaining 22% of the cases occurred during intramuscular (2 BEAs), intravenous (2) or lumbar (2) puncturing, and other procedures (5). Of students who recalled having experienced a BEA, 39% had reported the incident to hospital personnel. Students most frequently indicated their inability to influence the outcome (40%) as the reason for not reporting a BEA. Several students reported that they did not know whom to consult (20%) or had been advised against reporting (20%).

Only 19% of students reported never recapping needles and always using a sharps container (Table). The decision to wear gloves was influenced by the procedure; most students used gloves for suturing, but not for intradermal or intramuscular injections. Of the students, 87% reported having received no information about universal precautions or BEAs during rotations.

Discussion

Studies from several countries have found the prevalence of BEAs in medical students to be similar to that reported here.2-7 In this study, adherence to the universal precautions of using gloves and disposing of sharps was poor, suggesting a need to more carefully educate students on safe practices.

Perhaps the most disquieting finding pertains to the reasons students frequently did not report BEAs. A surprising number of students cited their inability to influence the outcome as a chief reason for keeping silent. This pessimism is at odds with data showing that postexposure prophylaxis may result in substantial reduction in the risk of HIV transmission.9 Furthermore, our finding that many medical students may perceive that they are being dissuaded from reporting BEAs or do not know to whom they should report such incidents suggests that students need more occupational risk management training in medical student education.

REFERENCES


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