

## Needle-Stick Injury and Medical Students' Knowledge

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Health-care worker's contamination was noticed with discovery of blood-borne pathogens in the late 1980's. The main way of this transmission is via hollow intravascular needles, although other sharp instruments are also important [1]. Sixty blood-borne pathogens have been reported until now which contain 26 kinds of viruses, 18 kinds of bacteria/ rickettsias, 13 kinds of parasites and 3 different fungi. However, Hepatitis B, C and HIV viruses responsible for the majority of occupational transmission [2]. The risk of this transmission in Hepatitis B (30%), Hepatitis C (1.8%) and HIV (0.3%) depend on patient's viral load and the amount of blood that has been transmitted from patient to health-care worker [3].

In this cross-sectional descriptive study, medical students (interns and residents) filled out a questionnaire with three parts including risk factors (8 questions), prevention methods (4 questions) and post exposure prophylaxis (9 questions). Fifty-nine interns and 81 residents were completed the questionnaires that 72 of them were men. Their mean age was  $27.56 \pm 7.6$  years and mean number of their needle sticks was 1.41. Majority of them (95%) had completed their hepatitis B vaccination and 118 of them had checked their serum HBS Ab levels and 27 of them had participated in personal percussion training classes. Mean number of answering to risk factors questions was 4.10 to prevention methods

questions was 2.36 and to post exposure prophylaxis questions was 3.79. Mean number of totally answered questions was 10.25 and 17.9% of answers were in low level, 76.4% in intermediate level and 5.7% in high level.

Mean answering to questions was different not only between interns and residents ( $p=0.001$ ) but also between persons with and without history of needle stick injury ( $p=0.06$ ). Mean of knowledge was different between surgical (general surgery, ENT, gynecology and orthopedic residents) and non-surgical (internal and emergency medicine) groups ( $p=0.001$ ), although was not different between men and women.

This survey reveals that not only risk of needle-stick injury is very high in medical students but also they have not enough education for prevention of it. Increasing transmission risks of blood borne diseases in hospital, dedicate the more demand for continuous and practical teaching of transmission, prevention and treatment route of contaminated contacts. This study also shows the more being at risk (surgical groups) the less having knowledge. Therefore, these groups should be announced as high-risk groups and educated more. Finally medical students should be vaccinated and learn these knowledge at the beginning of their practical courses in hospital before they pose to a risky position.

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