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## Incidence of Iatrogenic Injuries to the Doctors Caused by Needles.

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### **Abstract:**

**Objective:** The main aim of this study was to find the incidence of iatrogenic injuries to the doctors caused by needles during different procedures.

**Place and duration of study:** This study was carried out in different hospitals of Lahore in a duration of 3 months from March 2019 to May 2019.

**Material and Methods:** A total of 125 patients were included in this study. Both male and female doctors were included in this study. A pre-designed proforma was used to collect the data and later analysis was done using SPSS. Informed consent was taken from all the candidates after explanation about the study. Ethical committee approval was taken.

**Results:** Mean age of the doctors was 34 years. Among 125 doctors, 61 (48.8%) suffered needle injuries while working. Among these house officers were 42 (33.65%) and post graduate trainee were 19 (15.2%). Among 125 doctors, house officers were 82 while post graduate trainee were 43. 23 (18.4%) among 82 house officers told that no proper training or safety precautions were taught to avoid the needle injuries. Needle injuries were seen in 61(48.8%) of the patients while working. Among these post graduate trainees were 19(15.2%) while house officers were 42(33.65%).

**Conclusion:** During the start of the training more injuries are suffered by house officers due to lack of awareness about safety measures and education about safe handling of the needles and instruments.

**Keywords:** doctors, needle injuries, blood borne diseases.

**Introduction:** Needle stick injury is defined as the prick sustained by someone with needle that has been stained with body fluids or blood. In 2007 World Health Organization (WHO) reported around 2 million injuries which were caused by needles during different procedures. Around 5.6 million workers are susceptible to blood borne illnesses either due to percutaneous injuries or occupational hazards.

No acute symptoms are usually seen after injuries caused by needles but these are responsible for the

spread of different types of viruses including Hepatitis B (HBV), Human immunodeficiency virus (HIV) and Hepatitis C (HCV). WHO data in year 2000 showed that around sixteen thousand cases of hepatitis C, one thousand cases of HIV and sixty six thousand cases of hepatitis B were seen due to needle pricks. 25 different types of blood borne diseases are transmitted by these type of injuries.

Mostly these injuries are sustained by health professionals who work in operation theatres, wards and outdoor departments, etc. But people from other professions can also sustain such injuries like laborers, tattoo artists or agricultural persons.

**Material and Methods:** A total of 125 patients were included in this study. Both male and female doctors were included in this study. A pre-designed proforma was used to collect the data and later analysis was done using SPSS. Informed consent was taken from all the candidates after explanation about the study. Ethical committee approval was taken.

**Results:** Mean age of the doctors was 34 years. Among 125 doctors, 61 (48.8%) suffered needle injuries while working. Among these house officers were 42 (33.65%) and post graduate trainee were 19 (15.2%). Among 125 doctors, house officers were 82 while post graduate trainee were 43. 23 (18.4%) among 82 house officers told that no proper training or safety precautions were taught to avoid the needle injuries. Needle injuries were seen in 61(48.8%) of the patients while working. Among these post graduate trainees were 19(15.2%) while house officers were 42(33.65%).

**Discussion:** According to the results of our study 48.8% (61) doctors suffered from needle injuries. Different studies show that mostly the health professionals are susceptible to needle injuries. Different incidence rate has been shown in



different studies like 68% in Jordan, 30% in Turkey and 74% in South Korea.

According to our study, injuries caused by the needles were seen in 15.2% (19) post graduate trainees and 33.65% (42) house officers. Despite proper training and education, this much high rates in needle injuries implies that proper precautions must be taken for infection control among health professionals.

In our study there were certain limitations like small number of doctors and exclusion of para

medical staff. A large study involving all the health professionals like nurses, waste management staff, operation theatre attendants and medical technicians must be done to investigate the problem and then setting the proper guidelines to prevent these injuries and reduce the risk of blood borne diseases.

**Conclusion:** During the start of the training more injuries are suffered by house officers due to lack of awareness about safety measures and education about safe handling of the needles and instruments.

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