

Awareness and Compliance with the Needle Stick Injury Management Protocol at the Dental Teaching Hospital, Peradeniya

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Needle stick injuries (NSIs) remain a significant occupational hazard globally particularly due to the risk of transmission of blood-borne pathogens. Therefore, strict adherence to universal precautions is essential for healthcare workers to minimize such risks. This cross-sectional descriptive study aimed to evaluate the incidence of NSIs, awareness and compliance of at-risk healthcare staff and trainee healthcare staff to the established protocol for managing NSIs at the Dental Teaching Hospital, Peradeniya. A cross-sectional descriptive study was carried out using a self-administered questionnaire which was distributed among dental surgeons, auxiliaries and undergraduate dental students who are at a possible risk of NSIs to assess awareness and compliance with the NSI protocol. Additionally, records of reported NSI incidents from 2020 to 2024 were reviewed and analyzed. Out of 274 respondents, 10% reported experiencing at least one NSI in the past 12 months, with the majority (61%) being dental undergraduate students. Half of the affected individuals followed the established protocol for the management of NSI, while the others failed to report. Notably, 20% of respondents were unaware of the existence of the NSI protocol at the hospital. Only 12 nurses out of 23 were aware of the above protocol. Although 80% of the participants were fully vaccinated against hepatitis B, only 21% had verified their antibody titers. Out of 16 dental surgery assistants 11 were not vaccinated against hepatitis B. Awareness of immediate actions following a NSI and proper sharps disposal was reported by 58%, whereas only 35% recognized the importance of reporting injuries from unused sharp instruments. However, only 39 NSI incidents were recorded between 2020 and 2024, in which eight incidents occurred within the last year. NSIs continue to be a prevalent yet under-reported among at-risk group working at the Dental Teaching Hospital. Awareness regarding prevention and management of NSI was also not adequate. Therefore, there is a clear need for improved awareness and adherence to established management protocols. Regular training and awareness programs need to be arranged to enhance knowledge and compliance related to NSI prevention and management.

Keywords: Needle stick injuries, dental, prevention, awareness