

An Epidemiology of Reported Needlestick Injuries among Health Care Workers in Sabah Health Government Facilities from 1999 – 2008

ABSTRACT

Introduction: Health care workers (HCWs) are at a high risk of occupational exposure to blood and body fluids of patients, resulting in possible transmission of blood-borne pathogens such as hepatitis B virus, hepatitis C virus and human immunodeficiency virus. The information on epidemiology of needle stick injury among HCWs is useful in recommending safer work practices.

Materials and Methods: All cases of NSI reported within the period 1999 to 2008 from public health care facilities to the Sabah State Health Department were identified and analyzed accordingly. NSI is defined as any injury caused by hollow-bore needles or suture needles regardless of whether they are contaminated by blood/ body fluids or not. Health care worker is defined as Ministry of Health staff, trainees and health facilities support service workers. The software used for data analysis was SPSS version 15.0.

Results: A total of 378 cases of NSI were notified after considering NSI definition. Majority of HCWs involved in NSI were from the younger age group (20-29 years old, 61.9%), female gender (76.1%), Kadazan Dusun Murut ethnicity (33.5%), nurses (41.1%) and those who had worked for more than one year (66.6%). The place of occurrence was mostly in Kota Kinabalu district (25.3%), hospital setting (90.5%) and in-patient wards (60.8%). Of this in-patient ward, 64.5% was in medical and surgical wards. About 60% of NSI occurred during the morning shift (7am-2pm) and mostly among the nurses (54.0%). The duration of seeking treatment from injury was mostly within 24 hours (83.3%). The mechanism of accident happens while performing disposal activity (35.3%) and followed by any clinical procedure involving needle (31.1%). Other mechanism of accident was recapping (17.6%) and jolted/ accident (16.1%). Of all the reported NSI, 53.1% involved intravenous procedure. The body part involved in injury was mostly the right finger (57.1%). Almost all the needles were contaminated with blood or body fluid (90.0%). Post injury management, 73.5% were given first aid treatment and 99.4% were

not awarded any medical leave. Existing control measures for NSI were standard operating procedure (SOP) (47.9%), training (36.9%) and PPE (10.5%).

Conclusion: NSI commonly occurred among nurses, those in the younger age group and those working in medical/ surgical ward. Working during morning shift seems to predispose nurses to NSI. Since most NSI occurred during intravenous procedure and disposal activity, safer work practices should be emphasized to minimize these injuries. Further study in hospital and primary health care setting will determine the details of contributing factors of NSI.