

Sharps and Needlestick Injuries: The Impact of Hepatitis B Vaccination as an Intervention Measure

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Abstract

Introduction: This paper studies the epidemiology of sharps and needlestick injuries amongst healthcare workers and the effectiveness of intervention measures implemented at a regional hospital, Singapore. **Materials and Methods:** A retrospective review of sharps and needlestick injuries among healthcare workers of a regional hospital at Singapore between 1992 and 1997. Various interventions namely education, policy changes and a hospital-wide hepatitis B immunisation programme were reviewed for effectiveness of programmes implementation. **Results:** Of the 347 reported sharps and needlestick injuries, 45.7% occurred in the nursing staff, 25.1% medical staff, 7.5% health attendants, 5.2% hospital cleaners and 3.7% laboratory technicians. A steady rise in reporting was noted amongst the doctors from 1994 and this correlated with the implementation of educational talks given to new medical staff in May 1993. The number of healthcare workers with no previous history of hepatitis B immunisation decreased significantly from 17 in 1996 to 9 in 1997 ($P < 0.001$, odds ratio = 1.806 with 95% CI 1.443 to 2.261) after the implementation of the hospital-wide hepatitis B immunisation programme. **Conclusions:** Levels of awareness may contribute towards changes seen in the number of reporting of injuries. In our experience, we contend that education and appropriate policy changes towards easier reporting help to decrease sharps and needlestick injuries in healthcare workers. The hospital-wide hepatitis B immunisation programme helped to raise the immune status of the staff so as to reduce the costly prophylactic usage of hepatitis B immunoglobulin.

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