

# ANALYSIS AND MANAGEMENT OF OCCUPATIONAL INFECTION EXPOSURE ACCIDENTS AT AN INFECTIOUS DISEASE HOSPITAL IN CHINA

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**Abstract.** The characteristics and management of occupational infection exposure at infectious disease hospitals in China have not been well documented. We aimed to investigate the characteristics of occupational infection exposure at an infectious disease hospital in China and to analyze the preventive measures and post-exposure management of these incidences in order to inform future prevention methods. We retrospectively reviewed all cases of occupational infection exposure at the study hospital during 2014 - 2016. For each case, the following were reviewed: the occupation of the subject, their department, the routes and sources of exposure, post-exposure management and the clinical outcome. A total of 112 cases of occupational infection exposure were reviewed for this study: 91 (81.3%) were females; 66 (58.9%) were nurses and 37 (33.0%) were physicians. Sixty-six subjects (58.9%) worked in a surgical service. The most common route of exposure was needle sticks, 56 (50.0%) from hollow needles and 25 (22.3%) from solid needles. The pathogens exposed to were: hepatitis B virus ( $n=51$ , 45.3%), human immunodeficiency virus ( $n=23$ , 19.6%), syphilis ( $n=11$ , 9.8%) and hepatitis C virus ( $n=8$ , 7.1%). Among all the occupational infection exposures that occurred during the study period, none of the subjects contracted infection from any of the exposed pathogens. Our data suggest physicians and nurses working in surgical departments are at high risk for needle-stick injuries, but do not have a high seroconversion rate to exposed infections. Further studies are needed to determine if study subjects are strictly following universal precaution protocols and if there are patterns of avoidable sticks, and then develop and implement an education and prevention protocol and conduct follow-up studies to determine the efficacy of these measures.

**Keywords:** occupational exposure, health care workers, management, post-exposure prophylaxis, standard precautions, China

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