Epidemiology and clinical consequences of occupational exposure to blood and other body fluids in a University Hospital in Saudi Arabia

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Objective: To describe the epidemiological characteristics, clinical impact, and adequacy of post-exposure management of occupational exposures to blood and other body fluids (BBFs) at King Abdulaziz University Hospital, Saudi Arabia.

Design: Retrospective review study over 7 years.

Participants: Individuals reporting BBFs exposures from 2006 to 2012 were identified from Infection Control and Environmental Health unit.

Methods: Charts of exposed individuals were reviewed to collect relevant data using a standardized data collection form.

Results: The total number of exposures reported was 326 exposures, of which 302 (92.6%) exposures were percutaneous, 21 (6.5%), mucocutaneous, and 3 (0.9%), bites. Nursing staff/students had the highest rate of exposure (149, or 45.6%), followed by physicians (57, or 17.5%), and dental students (39, or 12%). Surgeons had a higher risk for sharp injuries compared to other physicians (p<0.005). Most (216, or 72.5%) percutaneous injuries were caused by hollow-bore needles. The majority of exposures (124, or 42.6%) occurred after use of the needle/sharp and before disposal. The source patient was known to be positive for HBV, HCV, or HIV in 72 (22.1%) incidents, negative for all three viruses in 147 (45.1%), negative for one or two viruses and unknown for others in 13 (3.9%) and unknown/untested for all three in 94 (28.8%). Two-thirds (219, or 67%) of exposed individuals were immune to hepatitis B at the time of exposure, and none seroconverted to HIV, HBV, or HCV infection.

Conclusion: Occupational exposure to BBFs is concerning among healthcare workers. Educational programs targeting high-risk groups entailing preventive measures and post-exposure management are needed.

Biography
Shireen Samargandy is a senior medical student at King Abdulaziz University, Faculty of Medicine. She has an interest in clinical research and infection control.

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