

Training and safety devices reduce risk of needle-stick injuries

With South Africa's extremely high prevalence of HIV and hepatitis B, healthcare workers are at particular risk or becoming infected with these and other blood-borne pathogens through workplace exposure, especially needle stick injuries.

A study conducted by Dr Pieter de Jager, a medical doctor in the department of anaesthetics at Wits University, and colleagues at the National Institute for Occupational Health (NIOH), calculated both the risk of health professionals sustaini a needle-stick injury and the likelihood of this causing HIV infection.

"We estimated that the current probability of a doctor or nurse sustaining a needle-stick injury was up to 70% a year, depending on the healthcare setting and the experience of the health professional," says De Jager. "We also calculated the lifetime chance of a doctor or nurse acquiring HIV through a needle-stick injury was less than one percent.



[©] Brandy Sites <u>123rf.com</u>

"Conservatively, we estimated that at least 20 doctors and nurses in the public healthcare sector alone contract HIV each year through needle-stick injuries. We could reduce this number by more than half, our study shows, through training and the provision of safety devices."

The study used an economic model to assess the cost-effectiveness of safety training and/or the use of safety-engineered syringes/needles in the South African healthcare sector. It was based on international evidence that the adoption of these practices reduces the risk of needle-stick injuries.

It also weighed up the costs of providing training and/or safety-engineered devices versus the costs of managing needlestick injuries, including the provision of post-exposure prophylaxis, absenteeism and possible treatment for HIV.

The researchers found that the provision of safety devices alone would reduce injuries and be cost-effective, but that best value for money would result from a combination of safety devices and regular training on safety guidelines for profession staff.

Early in 2015, the World Health Organisation (WHO) published guidelines that recommended the use of safety-engineerer injection devices. South Africa still has no specific national policy on this aspect of occupational safety.