

# Protecting Yourself from Sharp Injuries

By Edd Hong

## Sharp injuries can be potentially serious and life-threatening

Sharp injuries are cuts or puncture wounds to the skin, caused by needles or sharp objects such as scalpel blades. If the sharp object is contaminated with infected blood or other bodily fluids, there is a risk of transmitting infectious agents such as the hepatitis B virus or HIV. Infections with these pathogens are potentially life-threatening. Transmission of infectious diseases following percutaneous exposure can hence lead to serious or fatal infections.

According to the US National Institute for Occupational Safety and Health, the emotional impact of sharp injuries can be severe and long-lasting, even when a serious infection is not transmitted. Exposed employees may experience acute severe to moderate distress, while their family members and colleagues may also suffer emotionally.<sup>1</sup>

## Sharp injuries in healthcare settings

Healthcare employees who come into contact with sharps are at risk of sharp injuries. They include doctors, nurses, dentists, paramedics, operating department assistants and phlebotomists. Ancillary or support personnel (eg, housekeeping and laundry staff) may also be exposed to sharp injuries from sharps that were incorrectly disposed by users.

Sharp injuries can occur during use, such as giving injections, taking blood and cannulating. Healthcare employees are also at risk of needlestick injuries when they attempt to recap needles or fail to dispose needles properly. The mishandling of medical sharps like scalpels and lancets can result in cuts or puncture wounds.

Most reported sharp injuries in Singapore involve nursing staff and ancillary personnel like housekeepers, but cooks and other healthcare employees have also been injured. Cuts and puncture wounds due to knives or needles make up the dominant injury types. Some of these injuries expose employees to blood-borne pathogens that cause infection. The US Occupational Safety and Health Administration similarly reported that nursing staff are

the most frequently injured in the healthcare industry, and estimated that 5.6 million employees in the healthcare industry and related occupations are at risk of occupational exposure to blood-borne pathogens.<sup>2</sup>

## Recommended preventive measures

Healthcare employees who are at increased occupational risk should take preventive measures to protect themselves from sharp injuries. Some of these measures are:

- Use safer sharp devices such as shielded or retractable needles, or needleless devices.
- Avoid recapping needles.
- Dispose used needles in puncture-proof sharps disposal containers.
- Participate in training related to safe work practices and infection prevention.
- Wear personal protective equipment like gloves to reduce the risk of consequent infection.
- Vaccinate against blood-borne diseases, like hepatitis B, which can be transmitted through percutaneous exposure.
- Report all sharps-related injuries promptly to ensure appropriate follow-up care. **SMA**

## References and further reading

1. National Institute for Occupational Safety and Health (NIOSH). *Preventing needlestick injuries in healthcare settings*. Cincinnati, Ohio: NIOSH Publications Dissemination, 1999. Available at: <http://www.cdc.gov/niosh/docs/2000-108/pdfs/2000-108.pdf>. Accessed 25 March 2013.
2. Occupational Safety and Health Administration. *Needlestick/Sharps Injuries*. Available at: <http://www.osha.gov/SLTC/etools/hospital/hazards/sharps/sharps.html>. Accessed 25 March 2013.

Mr Edd Hong is a Manager in the WSH Practices Branch of the Workplace Safety and Health Council.

Since September 2011, all workplaces, including hospitals and medical clinics, have been covered under the Workplace Safety and Health Act. The Workplace Safety and Health Council's Healthcare Committee has produced a workplace safety and health checklist for medical clinics. Do visit <http://goo.gl/6wwz6> to download the checklist.