

Our study revealed that needles were the major injury-inflicting objects, of which disposable injection syringes accounted for the most. This finding is similar to that of Puro et al.¹⁰ In terms of work practice, injuries occurred most frequently when the "syringe was recapped with both hands."^{1,8} Since injection syringes were the greatest culprit for needlestick injury from our study, individuals who handle such apparatus should be reminded to be alert and adept in their handling of used needles. Employees also should be encouraged to use appropriate protective measures, such as recapping the syringe single-handedly and using safer products with improved designs. In our hospital, containers that are resistant to puncture were purchased in 1997, so disposable needles can be discarded without recapping. The annual incidence of needle-recapping injury decreased over the period of the study.

Of the incidents reported, 106 involved individuals being cut or slashed by sharp instruments, mostly by suture needles and blades; Jagger et al revealed similar findings.⁷ Our study also revealed a higher incidence of injury when sorting or cleaning medical instruments. Sharp disposable objects should be discarded immediately after use, and they should not be disposed with nonsharp objects.

In addition to the incidence of injury inflicted by sharp-edged medical objects, there were also 24 reports in this present study of the mucosa or broken skin of HCWs being accidentally exposed to blood or body fluids in the work place. In this context, it is suggested that HCWs should be advised to observe faithfully all protective measures to avoid direct contact with blood and body fluids in the process of administering medical care to such patients.

This study has also shown that the probability of injury-inflicting objects being contaminated with either blood or body fluid was 94.7%. Due to the high prevalence of HBV carriers in our country, we encourage HCWs to receive HBV vaccination prior to employment at our hospital. A regular follow-up of sharp-object-injured HCWs by periodic blood testing revealed that one HCW tested positive for HCV subsequent to a sharp object injury.

In conclusion, a sharp-edged medical-object injury is one of the most frequently seen occupational injuries among HCWs in a hospital work setting. For the sake of safeguarding personal safety and health and avoiding transmission of disease through contact with blood and body fluids, HCWs should heighten their awareness of this type of injury, acquire deft operating skills, and use pertinent protective measures to avoid injury.

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First Responders Not at Occupational Risk of HCV

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The CDC recommends that first responders (ie, firefighters, emergency medical technicians, and paramedics) do not need routine testing for hepatitis C virus (HCV) unless they have a history indicating an increased risk of infection. This recommendation was prompted by inquiries received by the CDC from state and local health departments and occupational health services about the prevalence of HCV infection among first responders and the need for routine HCV testing

among these workers. In response, the CDC published a summary of five studies of HCV infection among first responders. Among the first responders in all five studies, HCV infection was associated primarily with nonoccupational factors, a finding similar to HBV, a bloodborne virus transmitted at a rate 10 times higher than HCV. Three risk factors accounted for most of the infections: illicit drug use (60%), high-risk sexual behavior (15%), and blood transfusion (7%). These reports indicate that first responders are not at greater risk than the general population for HCV infection; therefore, routine HCV testing is not

warranted, unless they have a history indicating an increased risk for infection (eg, transfusion before July 1992 or injecting-drug use). It is recommended that first responders should continue to follow Standard Precautions to reduce workplace exposure to bloodborne pathogens.

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