



A Union of Professionals

Health and Safety Program

HEPATITIS C ALERT

Thanks to widespread media coverage and information programs, most healthcare workers recognize the serious work-related risk of infection from Hepatitis B virus (HBV) and the Human Immunodeficiency Virus (HIV). Unfortunately, the attention focused on these bloodborne viruses has overshadowed the threat of occupational exposure to Hepatitis C and other possible non-A, non-B, non-C Hepatitis viruses.

What is Hepatitis C?

Shortly after researchers discovered the genetic markers for Hepatitis A, B and D viruses, it soon became evident that other unidentified viruses were also causing hepatitis. These unidentified viruses were classified as non-A, non-B Hepatitis viruses. In the late 1980s, at least one non-A, non-B virus (Hepatitis C) was characterized. It soon became evident that Hepatitis C virus was responsible for up to 90 percent of post-transfusion hepatitis in the United States.

Studies of blood donors seem to indicate that from three percent to eight percent of healthy individuals are infected with Hepatitis C. High rates of infection have been reported among drug abusers (34 percent to 83 percent) and the majority of hemophiliacs.

The evidence of Hepatitis C infection among healthcare workers is skimpy. However, the Centers for Disease Control estimates that between five percent and nine percent of all cases occur in healthcare workers. These cases are assumed to be work-related.

Infection can result in no apparent symptoms, acute liver disease and chronic disease. Acute Hepatitis C infection is associated with all the classic clinical signs of hepatitis--loss of appetite, nausea, vomiting, and sometimes jaundice. However, acute Hepatitis C infection does not appear to be as severe as acute Hepatitis B infection.

Chronic infection can be both symptomatic and non-symptomatic. **From 40 percent to 60 percent of infected individuals will become chronic carriers** (only 10 percent of individuals infected with Hepatitis B become chronic carriers). Chronic Hepatitis C may progress to cirrhosis of the liver; there is also evidence from Japan that it may be associated with liver cancer. Some researchers believe that in rare cases Hepatitis C may cause aplastic anemia.

How is Hepatitis C transmitted?

Hepatitis C appears to follow the same transmission patterns of other bloodborne diseases. It is probably not as concentrated in the serum of an infected individual as the Hepatitis B virus. However, exposure to any contaminated blood or body fluid can put an individual at risk.

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Transmission in the healthcare setting is also similar to that of other bloodborne diseases. There is at least one documented case of a nurse who contracted Hepatitis C after sustaining a needlestick from a needle contaminated with the blood of an acutely infected patient. Environmental contamination similar to Hepatitis B virus may be responsible for some infections. As with Hepatitis B, it is thought that the virus can survive in dried blood at room temperature for long periods of time and that it can survive on the surface of dialysis machines and other equipment. Several healthcare workers have become infected in hemodialysis units when tending to patients.

How can HCV infection be prevented in the healthcare setting?

Hepatitis C will remain a threat to healthcare workers if effective precautions are not instituted. Not only are Hepatitis B and HIV highly prevalent in large urban areas, but so is Hepatitis C. A recent study of emergency room patients in a large urban hospital found that 18 percent of admitted patients were infected with Hepatitis C--with nearly 83 percent of intravenous drug users showing evidence of infection. A large percentage of patients who were actively bleeding were infected.

Screening of patients for Hepatitis C or any bloodborne diseases is not an effective strategy to reduce exposure for healthcare workers. More than ever, comprehensive programs as mandated in the recent OSHA bloodborne disease standard are the only safeguard for healthcare workers. Universal precautions, safe needle devices, protective equipment and clothing are all essential to prevent infection from Hepatitis C and other bloodborne diseases.

What other safeguards should be in place to protect healthcare workers?

Unfortunately, there is currently no vaccine for Hepatitis C, nor are there recognized standards for treating an exposure or needlestick from a patient with Hepatitis C. The National Institutes of Health recommends that, after an exposure, a worker be given immune serum globulin (ISG) to reduce the possibility of infection or disease.

Treatment for chronic infection is also not widely available. However, in clinical studies, recombinant alpha-interferon shows great promise as a potential anti-viral agent to treat chronic carriers.

For more information, contact the AFT Healthcare Occupational Safety and Health Program at 202/393-5674.