Percutaneous Injuries in Home Health Care Settings

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Home health care has been one of the fastest-growing sectors in the health care industry, but the prevention of occupational exposures in this setting has not received the attention it deserves. Of the more than 8 million U.S. health care workers who work in hospitals and other health care settings, between 650,000 and 850,000 are employed in home health care. There are few data and no national estimates on the number of needlestick injuries that occur each year in home health care settings. Perhaps because of this lack of documentation, some recent state bills on needlestick prevention, such as the one passed in August in Massachusetts, overlook home health care and other non-hospital settings. But does the absence of data mean absence of risk?

From 1993 through 1998, 84 hospitals provided EPINet data on percutaneous injuries to the International Health Care Worker Safety Center. Most of the data were from in-patient settings, but in some instances, home health care agencies were associated with EPINet hospitals, and percutaneous injuries reported from those sites were entered into the EPINet database. Figures 1, 2 and 3 compare the characteristics of percutaneous injuries occurring in hospital patient rooms to those occurring in home health care settings.

There were 7,101 percutaneous injuries reported by hospital workers in patient rooms during the six-year interval. Workers in home health care settings reported 290 injuries during the same time period. Nurses sustained the overwhelming majority of injuries—87%—in the home care setting, compared to 65% for nurses in patient rooms.

Figure 1 compares the pattern of device risks in the two settings. In home health care settings, there are proportionately more injuries from winged needle steel needles, phlebotomy needles and lancets. In patient rooms, there are proportionately more injuries from syringes, I.V. catheters and needles on I.V. tubing.

Figure 2 (next page) compares the procedures associated with the devices causing injuries. This comparison shows that in home health care settings, proportionately more injuries were associated with blood drawing, including finger and heelsticks, whereas in patient rooms, proportionately more injuries were associated with intravenous access—starting I.V.s and connecting I.V. lines and doing heparin/saline flushes and other injections involving IV ports. Overall, 40% of injuries in home health care settings were “high risk,” that is, associated with blood drawing or intravenous access, compared with 34% for injuries in patient rooms.

Figure 3 compares the mechanism of injuries for home health care settings and patient rooms. Where 38% of injuries occurred either after use or during disposal in patient rooms, 48% of injuries occurred during these steps in home settings. This may reflect the more unpredictable environment of home care settings compared to patient rooms, and the problem of inadequate, overfilled or nonexistent disposal containers that Julie Naunheim-Hipps reported in the previous article.

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A higher frequency of injuries from blood-filled needles—those most likely to transmit bloodborne pathogens—compared with hospital health care workers in patient rooms. While home health care workers have as great or greater need of protection from sharps injuries as hospital workers, the home health sector is less regulated by OSHA than the hospital sector. When OSHA’s Bloodborne Pathogens Standard was promulgated in 1991, both the dental and the home health care industries sought exemptions from the standard. In a court ruling, American Dental Assn. v. Martin, the dental industry was denied an exemption, but one was allowed for home health care. The 1999 revised compliance directive for the Bloodborne Pathogens Standard states that, “In implementing this decision, OSHA determined that the employer will not be held responsible for the following site-specific violations: housekeeping requirements, such as the maintenance of a clean and sanitary worksite and the handling and disposal of regulated waste; ensuring the use of personal protective equipment; and ensuring that work practices are followed... and ensuring the use of engineering controls” [emphasis added]. The reasoning behind the court’s decision, of course, was that private homes cannot be regulated by OSHA. However, OSHA does state that the employer is responsible for all non-site-specific requirements of the Standard, such as maintaining an exposure control plan and providing personal protective equipment and engineering controls to employees, as well as postexposure evaluation and follow-up.

Because of the unpredictable and sometimes chaotic environment in which home health care is provided, home health employers should ensure that workers have sharp devices with engineered sharps injury protection, especially safety blood-drawing and I.V. access equipment. By providing sharps that are automatically covered after use, both workers and home health care patients and their families will be protected, since these patients are often responsible for disposing of their own medical waste, and since proper, puncture-resistant disposal containers are sometimes in short supply.

References