Improving Compliance With Personal Protective Equipment Use Through the Model for Improvement and Staff Champions

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Although the known risks of exposure to hazardous drugs have been well documented and disseminated, certain barriers remain in the use of personal protective equipment (PPE) by nurses administering chemotherapy. At Dana-Farber Cancer Institute, a program was developed that incorporated not only monitoring and reporting compliance of the use of PPE, but also engaged the staff in audit and reporting activities. Compliance rates improved dramatically over time and have remained at high levels.

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Risk of Exposure

In general, exposure risks for nurses are related to the preparation, transport, administration, and disposal of chemotherapy waste and bodily fluids. In addition, exposure risk is present when handling and opening drug cases and packages prior to preparation. Except for treatments given intramuscularly or subcutaneously, accidental injection is much rarer because of the use of needle-free administrations. The highest risk of exposure for nurses is associated with preparation and administration, primarily through inhalation of aerosolized drug, direct contact (through eyes, skin, or mucosa), and ingestion of an improperly handled drug.

In an article regarding the safe handling of hazardous drugs, Polovich (2004) highlighted a 1999 report by the Department of Commerce estimating that 5.5 million healthcare workers are in a position to be exposed to hazardous drugs in the workplace. Since then, NIOSH (2008) has estimated that the number of workers at risk of exposure is closer to 8 million. That estimate includes employees who directly purchase, store, prepare, deliver, administer, and discard chemotherapy, as well as those who risk exposure by working in the vicinity of these drugs.

Current Guidelines

The NIOSH (2004) recommendations fall into three categories: Assess the hazards in the workplace, handle drugs safely, and use and maintain equipment properly. The recommendations also provide more detailed guidelines for appropriate use of personal protective equipment (PPE), receiving and storage of