Reducing Exposure of Antineoplastic Drugs to Healthcare Workers
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**Problem:** The purpose of this project is to minimize the risk of exposure of hazardous drugs to healthcare workers on the Oncology unit. Healthcare workers are at a high risk for exposure due to the chemotherapy bags not being primed prior to being sent up to the unit. Personal protective equipment guidelines were not followed as directed. A Plan-Do-Study-Act design was utilized as a guide that included implementation of evidence-based guidelines for care.

**Evidence:** Safe handling of hazardous drugs used in the treatment of cancer is necessary to reduce exposure to healthcare workers. According to OSHA (Occupational Safety and Health Administration) safe levels of occupational exposure to hazardous agents cannot be determined and no reliable method of monitoring work-related exposure exists. Therefore, it is imperative that those who work with hazardous drugs (HDs) adhere to practices designed to minimize occupational exposure. According to the NIOSH (National Institute for Occupational Safety and Health) guidelines regarding safe administration of hazardous drugs, the best way to protect workers from a hazardous exposure is to eliminate the hazard, but we cannot eliminate the drug. So in keeping with guidelines of safe handling of HDs (Hazardous Drugs), we reviewed our current process to make sure we were using the proper procedure in all areas of administration.

**Strategy:** We implemented a new process for safe handling of cytotoxic medications. The changes included having pharmacy spike IV bags and prime tubing with compatible fluid before adding the cytotoxic drugs, and or use a closed system device to minimize the risk of exposure and also to educate the staff on the proper use of PPE’s in chemotherapy administration. Additionally a nurse checklist was implemented to assure proper administration.

**Practice Change:** A standard practice for administering chemotherapy requires two co-signers and signatures on the chemotherapy administration checklist. The checklist was updated to include fields to verify the iv tubing was properly primed by pharmacy prior to transport and a field to verify the nurse administering the chemotherapy is wearing the proper protective equipment (PPE).

**Evaluation:** Based on collected chemotherapy administration checklists, we have achieved 100% compliance with new process. No exposures have been documented on the unit since implementation of this evidence based practice.

**Results:** After three months, there was 100% compliance with all chemotherapy tubing primed prior to transport to the unit and 100% compliance with chemotherapy nurses verifying all proper PPEs in place prior to administration of hazardous drugs.

**Recommendations:** Include a closed system device to minimize the risk of exposure. Use tubing and syringes with Luer lock fittings.

**Lessons Learned:**
The key to implementing an EBP project is making sure everyone involved understands the impact of the change and how important their participation and support will be to minimize exposure.
Bibliography:


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