Introduction
As research continues to highlight the risks of hazardous drugs for both patients and health care workers alike, hospitals are giving increased attention to safety measures. However, nurses’ use of the recommended personal protective equipment (PPE) during chemotherapy preparation, administration, and disposal is not universal. For oncology nurses who administer chemotherapy, does the current PPE practices implemented on a hospital unit compare with the current recommendations of practice to decrease biohazard chemical exposure?

Background
It is estimated that 5.5 million health care workers are exposed to hazardous drugs in the workplace. Long term exposure to hazardous drugs without PPE has been linked to adverse reproductive outcomes and organ toxicity. To prevent these adverse effects, PPE should be worn. PPE includes double gloves, gowns, respirators, face mask/shields or goggles.

Methods
In order to evaluate the nursing staff’s general awareness of chemotherapy knowledge, individual practices, and evaluation of hospital’s policies, a survey was distributed via hospital email. The questions were based on a previous study by Kidong. A total of 30 surveys were distributed and 17 were returned.

Results
The results of the surveys were compiled in a series of graphs. Of those surveyed, 88% of the nursing staff reported that they were involved in the administration of chemotherapy on a weekly or more frequent basis. However, only 41% of the nurses felt that their current chemotherapy administration practice exemplified optimal personal safety.

Discussion
The goal of the survey was to evaluate the nurse’s perception of, and adherence to the safety standards surrounding chemotherapy administration. The graphs below indicate safety precautions currently utilized by the survey participants throughout the chemotherapy administration process.

PPE Usage for Priming

PPE Usage for Administration

PPE Usage for Disposal

PPE Usage for Handling of Excreta

Conclusions
To prevent adverse side effects from cytotoxic agents, PPE should be consistently worn while handling, preparing and priming administration sets, administering and disposing of chemotherapy, and handling excreta from patients who are receiving chemotherapy. There is a discrepancy between the current standards by ASCO and the practices used by hospital nurses. The recommendation is that continuing education is needed to bring about further awareness of the proper utilization of PPE as well as the potential consequences of not following these recommendations.

References
4 Kline, N. et al. (2011). The Pediatric Chemotherapy and Biotherapy Curriculum. (3rd ed.). Glenview, IL: Association of Pediatric Hematology Oncology Nurses

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