HEALTHCARE WORKERS AND OCCUPATIONAL EXPOSURE TO ANTI NEOPLASTIC DRUGS IN ONCOLOGY WARDS

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Objective To quantify levels of Ifosfamide (IF) in urine among healthcare workers in a hospital setting.

Methods This cross-sectional study identified 70 subjects who handled IF in oncology wards or antineoplastic drug preparing units at a medical school hospital. Their urine samples were collected at 1–2 hours prior to the end of each work shift, the levels of IF were determinate by gas chromatography mass spectrometer (GC/MS). Information on demographic information, work practice, work position, working station, medication timing and dosages including the time of urine collections was collected using self-administered questionnaires and personal interviews.

Results IF levels were detected in urine of 20 personnel (28.6% of total) with geometric mean of 3.6 ng/mL, arithmetic mean 43.6 ng/mL, min-max of 16–526 ng/mL. Among IF-positive subjects, 53.8% of workers with were in the age group of 41–60 years. Levels of IF were found in all subjects who were drug-preparing workers were found positive tests for IF. The levels of urine IF (geometric mean) were found to be of 526 ng/mL among the pharmacist assistants, 3.1 ng/mL for cleaning worker, 2.9 ng/mL for nurses, and 86.8 ng/mL for pharmacists.

Conclusions All groups of healthcare workers in the processes of anti-neoplastic medication especially among pharmacist assistants and cleaning workers. Although in a high standard protection against the oncological chemicals, health personnel are at risk of contaminations especially among professional assistants and general workers.

A company wide KAP survey was conducted around HIV but in this workplace, exposure to HIV through work exposures was also possible. In a high prevalence HIV country workers perceptions and behaviour around needlesticks play a role in the occupational health and safety.

Methods This survey was nested within the larger KAP survey which was distributed to all employees of the company with their pay slips. The questions covered knowledge of correct procedures to follow, likely hood to take prophylaxis and complete the course.

Results 1497 employees participated in the KAP survey which covered all regions of South Africa and represented all occupations within the company. One third of participants were only partly aware or not at all aware of the correct procedure to follow after a needlestick, and those who were unfamiliar wit the procedure were also more likely to over estimate the ideal window for starting post exposure prophylaxis. 33% of participants would only take PEP if the injury warranted it. These findings were significantly associated with education but not job category. Age also played a significant role in the perception of risk and compliance. Only 9% of staff reported a needlestick in the past 5 years but in a high prevalence HIV country these people are at high risk.

Conclusions The training of laboratory staff needs to be undertaken with focus on those with lower education levels to ensure understanding. This will allow all employees to have the best information around needlesticks and post exposure prophylaxis.
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