

AMBULATORY ONCOLOGY THERAPY: IMPACT ON PUBLIC HEALTH AND ENVIRONMENT

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The increasing use of chemotherapy has impelled hospitals to reorganize their services, shifting from inpatient to outpatient care [1]. Antineoplastic drugs are a heterogeneous group of widely used treatments for neoplastic and non-neoplastic diseases, proved to be mutagens, carcinogens and teratogens.

Chemical contamination that for a long time was concentrated in care institutions can be shifting towards homes and environment. Patients excrete these drugs and their metabolic by-products in body wastes, which can expose home caregivers and family members by skin absorption and unintentional ingestion from hand to mouth contact. An example of environmental impact is their presence in freshwater systems and the consequent contamination of the potable water supply, with risk of human exposure [1]. This study intends to create and validate a checklist for identification of the daily routine of the patients to define surfaces which are often touched and/or used or where potential spillage of drug-loaded urine or vomit is most likely. This information is crucial to do proposals of the most appropriate corrective measures to eliminate/reduce contamination and exposure of family members in homes of ambulatory chemotherapy patients. Safety guidelines of handling antineoplastic drugs of different reference institutions (NIOSH, USP, ASHP and ISOPP) and original articles reporting antineoplastic drug residues inside homes of chemotherapy patients were reviewed towards the creation of the checklist. This is composed by eight items, divided in information about the patient (chemotherapy cycle characterization, personal hygiene, daily routine), caregivers/family members (personal protective equipment, handling patient excreta and cytotoxic waste education) and dwellings conditions (home hygiene, cleaning agents). The determination of content validity is in progress. Experts were requested to give their opinion on the relevance of each item included and to indicate the comprehensiveness of the checklist. In summary, as more and more chemotherapy is given to outpatient clinics and at home, it is important that caregivers and patients understand the risks and hazards that family members may be exposed to.

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[1] S. Viegas et. al., *Arhiv Za Higijenu Rada I Toksikologiju* **68**, 287-297 (2017).