

PAHO/WHO Collaborating Centres: Celebrating the Achievement of Our Common Goals

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Carcinogenic drug exposure among health-sector workers: the need for exposure assessment and surveillance

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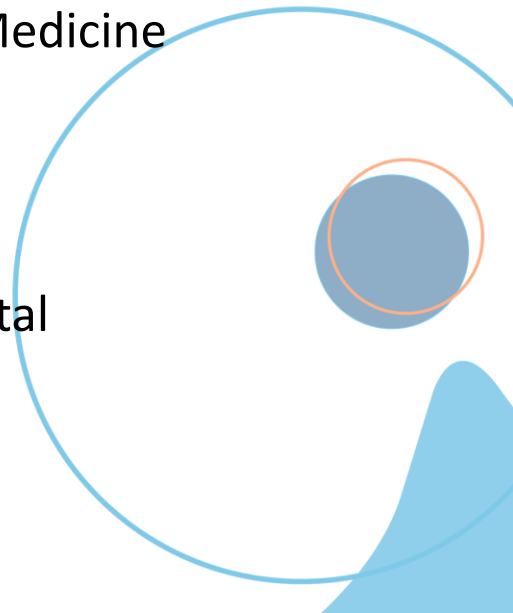
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Overview

The problem:

- Cancer incidence and antineoplastic drug (AND) use increasing across LMICs in the next two decades.
- ANDs used for chemotherapy can pose carcinogenic risks to health-sector workers anywhere along these drugs' life cycle in a facility, from production to patient administration.

Objectives of this report:

- 1) Provide an overview of longstanding research and prevention efforts, led by PAHO/WHO and its Occupational Health CCs, aimed at reducing the burden of occupational cancer in the Americas;
- 2) Discuss how robust AND exposure assessment and educational/outreach work by PAHO CCs can form the basis of exposure mitigation efforts among health-sector workers;
- 3) Through the presentation of original AND exposure assessment data from a pharmaceutical compounding facility in Chile, highlight relatively inexpensive methods by which such data can be generated; and
- 4) Discuss how effective, periodic environmental surveillance in healthcare facilities results in the identification of AND contamination in the work environment and enables the implementation of low-cost, high-impact interventions to reduce the risk of occupational cancer in health-sector workers, including in limited-resource settings.

Conclusions & Recommendations

- Extensive data demonstrate the feasibility of both AND exposure assessment and strategies to mitigate associated health risks.
- Environmental exposure assessment efforts, such as wipe sampling studies and inexpensive HPLC-UV detectors, are a necessary first step in the mitigation of AND work surface contamination in healthcare facilities.
- Once identified, AND contamination should be minimized through robust application of the hierarchy of controls:
 - Engineering controls, if available (biosafety cabinets and closed-system transfer devices)
 - Administrative and work practice controls, such as those outlined in PAHO's 2013 Safe Handling guidance for ANDs
 - Training of workers in these work practice controls and in PPE requirements.
- Ongoing, periodic environmental exposure assessment is essential to gauge the effectiveness of the above interventions.

AND Risk Mitigation Furthers PAHO's Mission

- The risk of health-sector worker exposure to ANDs and other hazardous drugs must continue to be included within PAHO/WHO's broader efforts at reducing the impact of non-communicable diseases, including occupational cancers.
- PAHO/WHO CCs and their partners should continue to play a leading role in outreach efforts to further knowledge on the safe handling of ANDs and to demonstrate the feasibility of conducting robust exposure assessment studies in limited-resource settings
- These efforts will provide an evidence base for institutional and national policy recommendations for preventive action.