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Dispensing Chemotherapy for Use in the Home – What Pharmacists and Patients Need to Know

In recent years, as new oral therapies for the treatment of cancer have emerged, dispensing and administration of these hazardous medications has moved from the traditional hospital setting to the community. Oral chemotherapy treatments provide patients with greater convenience and independence, but also the responsibility for administration, monitoring of side effects and compliance. Safe and proper handling procedures should be followed within the pharmacy to prevent exposure and pharmacists need to communicate to patients and caregivers safety precautions when using these medications in the home. Medication adherence is a major contributing factor in the overall efficacy of oral cancer therapies and pharmacists can provide ongoing support and intervention to improve patient compliance.

Safe Handling in the Pharmacy

Both cytotoxic agents (methotrexate, cyclophosphamide, etc) and non-cytotoxic agents (letrozole, tamoxifen, etc) pose a possible risk to pharmacy staff and patients in the event of exposure. The increase of both cytotoxic and non-cytotoxic medications in the community setting requires knowledge and implementation of safe handling procedures. All pharmacy staff should be aware of all hazardous medications stocked in the pharmacy and these products should be identified and properly labeled. When dispensing oral cytotoxic or non-cytotoxic medications, a designated counting tray and spatula should be used and medical quality gloves should be worn when handling these products. Pharmacy staff should ensure that gloves meet ASTM standards for handling contaminated materials and hands should be washed upon removal of gloves. Trays, spatulas and counter space should be properly cleaned after each use. Hazardous drugs should not have their dosage form compromised by splitting or crushing tablets as powder may be inhaled.

For more information, please see the [Winnipeg Regional Health Authority's \(WRHA\) Hazardous Medication List](#) and the WRHA's PowerPoint presentation on [Safe Handling of Hazardous Medications](#).

Importance of Medication Adherence

Possible consequences of non-adherence include an increased number of physician and hospital visits, treatment resistance, unnecessary treatment changes and disease progression. Another adherence issue may be over-adherence whereby patients believe “more is better” leading to drug toxicities. Complex treatment regimens, poor understanding of therapy and adverse effects and cognitive, memory or language deficits are all possible barriers to medication compliance.

Community pharmacists can help improve patient adherence and therapeutic outcomes by providing education and support to patients, family members and care givers. Ensuring patients and family members understand the dosing schedule, the importance of reassessment prior to each cycle of chemotherapy, the monitoring and management of side effects, the benefits of therapy and the importance of following the treatment schedule will increase compliance. Pharmacists need to provide ongoing follow-up by enquiring about possible side effects and adherence issues and should work with patients, their families and caregivers to develop possible solutions. Encourage patients to maintain a diary or journal of possible side effects and/or symptoms to discuss with their health care team. Remind patients that the best way to improve outcomes and safety with chemotherapy is to ask questions whenever they are unsure.

To improve your knowledge of oral cancer care treatments and pharmaceutical care of your cancer patients, you can access the professional development program: [“Oral Anti-Cancer Agents: Bridging the Gap”](#) on the CPhM website.

Patient and Caregiver Safety in the Home

Patients and caregivers need to receive proper training on how to handle oral chemotherapy medications and body wastes that may be contaminated with these medications in order to keep the home safe.

All chemotherapy medications need to be properly labelled and stored securely and separate from other medications. Patients, family members and caregivers need to know which medications are hazardous and require special handling. Medical quality examination gloves should be worn when administering these medications and hands washed afterwards. Tablets should not be split or crushed and capsules should not be opened as this may lead to inhalation of the powder from these hazardous medications. If a patient is having difficulty swallowing a chemotherapy medication, they should contact the pharmacist or healthcare provider at the cancer clinic to provide advice on other ways to help swallow the medication. All unwanted, unused or expired chemotherapy medication should be returned to the pharmacy for safe disposal.

As small amounts of the medication can be found in the patient’s bodily fluids, special handling precautions are needed for clean-up and disposal of a patient’s contaminated waste. Patients should cover toilets before flushing and caregivers should wear medical quality examination gloves when cleaning up any bodily fluids including vomit. Soiled laundry should also be handled with gloves and washed separately from other clothes. Any soiled surfaces should be cleaned with soap and rinsed with large amounts of water while wearing gloves. Upon exposure to either medication or contaminated waste, the caregiver should wash the affected area with soap and running water as soon as possible and seek medical attention if necessary.

For more information, please see [Cancer Care Manitoba’s Safe Management of Chemotherapy in the Home](#).