

Supporting Continuity of Care for Cancer Patients

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INTRODUCTION

John is a 69-year-old male patient who regularly comes to your community pharmacy to fill his prescriptions and to seek advice on self-management issues. Today he presents with a prescription for two new medications:

Apart from this information, the prescription contains no further information. The patient's profile reveals a non-significant medical and medication history. John tells you that he was recently diagnosed with colon cancer but remembers little else, including how to take these medications.

This likely represents the scenario that the pharmacy team working in the community may typically witness when patients present with prescriptions for oral chemotherapy agents. As patients now receive cancer care beyond the cancer centre or hospital, including in the community, the role of community pharmacy will grow as oral chemotherapy becomes an increasingly important part of care.

This article will describe a number of initiatives led by Cancer Care Ontario (CCO) to support this transition between hospital and community, relevant guidelines and safety initiatives now underway, and how you can become involved to improve the care of cancer patients in Ontario.

BACKGROUND

The incidence of cancer continues to rise as the population ages, with 45 percent of men and 41 percent of women expected to have a cancer diagnosis in their lifetimes.¹ Once diagnosed, many patients will proceed to have chemotherapy as part of their treatment plan. Oral chemotherapy is now commonly used as part of cancer treatment and can be used as monotherapy



(e.g., imatinib) or in combination with intravenous chemotherapy (e.g., capecitabine). It is estimated that 44 per cent of new therapies under development are oral cancer medications.²

Patients who receive oral chemotherapy as part of their treatment face new challenges as the responsibilities associated with dispensing, administration and patient education shift, in part, from the cancer hospital to the community and home. In order to ensure a seamless transition for patients from the cancer clinic to community and back to clinic, collaboration is essential between cancer specialists and community partners. The primary goals are to prevent unnecessary visits to the emergency departments and to prevent hospitalization due to toxicities from treatment.

INFORMATION FOR PATIENTS AND PRACTITIONERS

Oncology is a highly specialized area of practice using drugs that have a narrow therapeutic index. Ensuring that the right drug is given at the right dose, frequency, and interval is critical to minimize side effects and maximize therapeutic outcomes. Unfortunately, the information required is not always readily available to the community pharmacist, as illustrated in the example above.

A number of provincial initiatives are underway to ensure that the prescriptions leaving the cancer clinics contain the necessary information to enable community pharmacists to perform clinical verification and provide appropriate counselling to patients.

1. Prescriptions for cytotoxic drugs will be computer-generated

Cancer Care Ontario (CCO) has set a provincial goal that by June 30, 2015, there will be no handwritten or verbal orders for oral chemotherapy. This will ensure the legibility and accuracy of the prescription. Currently over 90 percent of hospital visits for intravenous chemotherapy are supported by computerized physician order entry (CPOE) systems.

2. Defining the recommended components of a prescription

A list of recommended components that should appear on a prescription was developed with the aim of standardizing the information on an oral chemotherapy prescription. Additional information such as diagnosis/indication, weight, body surface area, dosage modification factors and reasons will help the

community pharmacist perform the cognitive verification and provide appropriate counselling. CCO is working to ensure that prescriptions generated by its own CPOE system, (Oncology Patient Information System or OPIS), will contain these recommended components and also work with facilities using other CPOE systems to identify similar opportunities. A list of the recommended components is available at the CCO Drug Formulary website (www.cancercare.on.ca/drugformulary).

3. Pre-printed physician orders where CPOE is not in place

Pre-printed physician orders (PPO) have been developed for all evidence-informed regimens that contain oral chemotherapy (approximately 150 PPOs). These include cytotoxic, targeted and hormonal therapies. The PPOs are available at the CCO Drug Formulary website above.

4. Clinical checklist

Based on the checklist models used in surgery, emergency medicine and the aviation industry, work is currently underway to develop a clinical checklist to assist with the cognitive verification of a chemotherapy prescription. An opportunity exists to participate as a pilot site to evaluate the checklists prior to provincial roll-out.

In addition to having the necessary information on a prescription, pharmacists may require additional information about the drug(s) and regimen in order to perform the cognitive verification and to provide counselling to patients. The CCO Drug Formulary is available online and also as a mobile app (www.cancercare.on.ca/applibrary). Professional and patient information about indications, dosing schedules, management of adverse effects and more is provided through the app. Symptom management guides can also be found on the CCO website www.cancercare.on.ca/toolbox/symptools/ or on the app.



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SAFE HANDLING OF CYTOTOXIC DRUGS

Once a prescription has been verified for clinical appropriateness, it must then be dispensed with accuracy and in a manner that is safe for both providers and patients/caregivers. In the example above, capecitabine must first be recognized as an antineoplastic agent by the pharmacy technician/assistant to ensure proper handling to minimize exposure in the immediate setting to the technician/assistant and pharmacist and further down the road, to other patients through potential cross-contamination. Challenges exist where policies and procedures are not in place to identify chemotherapy drugs and their proper handling requirements.

A number of guidelines are available related to the safe handling of chemotherapy agents. CCO released a set of recommendations in December 2013, *A Quality Initiative of the Program in Evidence-Based Care, Cancer Care Ontario: Safe Handling of Cytotoxics*^{3,4}, (<https://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=293473>). Although the document focuses on intravenous chemotherapy in the hospital setting, there are helpful recommendations pertaining to oral agents. Key recommendations include:

- Identifying a responsible party to develop and review policy and procedures
- Providing initial and ongoing training to staff around the safe handling of cytotoxic drugs
- Maintaining a list of cytotoxic drugs. Each drug and their waste should be properly identified on the container with the symbol capital “C” and under it, the words “CYTOTOXIC/CYTOTOXIQUE”
- Using gloves that meet standards defined in the document, to handle cytotoxic drugs
 - 1 pair for the handling of solid oral dosage forms
 - 2 pairs for handling/preparing creams, ointments and oral solutions
- Using safe handling and administration techniques and providing this information to patients/caregivers to minimize possible exposure to individuals and the environment when administering cytotoxic drugs in the home

- Providing education to patients and caregivers on the proper disposal of cytotoxic drugs
 - Dispose of all cytotoxic waste in cytotoxic waste receptacle
 - Use appropriate personal protective equipment to handle bodily-fluid waste
- Ensuring proper handling of biological fluids, excreta, contaminated bedding and soiled equipment of patients who have received cytotoxic drugs

Other resources that may be useful to community pharmacists include the Canadian Association of Pharmacy in Oncology’s Standards of Practice for Oncology Pharmacy⁵, Australia’s SHPA Standards of Practice for the Provision of Oral Chemotherapy for the Treatment of Cancer⁶ and the Quebec’s Prevention Guide: Safe Handling of Hazardous Drugs⁷.

Guidelines published by CCO and the Program in Evidence-Based Care, including safe administration, CPOE best practices and safe labelling, can be found at <https://www.cancercare.on.ca/toolbox/qualityguidelines/clin-program/systemic-eb/>.

CONTINUING PROFESSIONAL DEVELOPMENT

Canadian pharmacists have reported a discomfort with the cognitive services associated with the dispensing of chemotherapy drugs. This is in part due to the lack of information available regarding the patient and disease but a significant factor is the lack of undergraduate and continuing education pertaining to oncology practice. Abbott et. al.⁸ conducted a survey to assess oncology knowledge of community pharmacists across Canada. They found that only 13.6 percent of pharmacists felt that undergraduate oncology training was adequate, 19 percent attended an oncology continuing education (CE) session in the past two years, 24 percent were familiar with common doses, and 9 percent were comfortable counselling cancer patients. A positive correlation was noted between the number of CE

sessions attended and comfort in dispensing chemotherapy. This study highlights the increasing need for community pharmacists to receive additional training in oncology practice.

Through a collaborative effort with the Ontario Pharmacists Association (OPA), an online educational program for community pharmacists with a specific focus on oral chemotherapy, "Principles of Oncology Treatments and Pharmaceutical Care" was developed to support pharmacists in this important area of clinical care. The program is currently being reviewed for accreditation. Please contact OPA if you are interested in taking this course.


PAVING THE ROAD FOR THE NEXT FIVE YEARS

High-quality care for cancer patients, whether provided in hospital or in the community, requires planning. In December 2014, CCO released the Quality Person-Centred Systemic Treatment in Ontario: Systemic Treatment Provincial Plan 2014 – 2019⁹ (<http://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=325326>). The plan sets out a roadmap for the delivery of systemic treatment across the province for the next five years and aligns with the Ontario Cancer Plan¹⁰ (<http://ocp.cancercare.on.ca/>). The plan details nine strategic priorities including Oral Chemotherapy, Toxicity Management and Community Pharmacy. Recommendations within those priorities include:

- By 2019, patients will receive oral chemotherapy medications that have been reviewed for clinical appropriateness and dispensing accuracy by registered pharmacists
- By 2019, patients will be able to access high-quality and standardized care when filling prescriptions at cancer centre and community pharmacies
- By 2019, patients will receive coordinated care between a cancer clinic and their partnering community pharmacy

Returning to John in the example above, a patient-centred approach would result in the patient receiving standardized, high-quality care starting with a prescription that was not handwritten and that contained the necessary information for the community pharmacist to perform the cognitive verification and provide patient education that complemented and reinforced the information provided by the cancer centre. There would be clear communication on the safe handling and disposal of the chemotherapy agents for both providers and

patients/caregivers. Finally, the patient's care would be coordinated and supported by good communication between the cancer clinic and his partnering community pharmacy.

To achieve these goals it is critical that community pharmacists and pharmacy technicians/assistants are involved. If you would like to learn more about provincial and local initiatives, be heard and contribute in any way please contact Kathy Vu (kathy.vu@cancercare.on.ca). 

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