Cancer Care Ontario

Action Cancer Ontario

RECOMMENDED CRITERIA OF A PRE-PRINTED ORDER: ORAL CHEMOTHERAPY TAKE HOME PRESCRIPTIONS

INTRODUCTION

Over the past two decades the delivery of systemic cancer therapy saw an increase in the use of oral take-home chemotherapies, and this trend is expected to grow in the future. Advocates for safe medication practices in oncology have recommended that health care organizations improve their medication-use systems specifically to prevent medication errors in antineoplastic prescribing.[1,2] In a recent survey conducted by Cancer Care Ontario (CCO), 23% of participants reported routinely using computerized physician order entry (CPOE) system to prescribe oral chemotherapy, while the remaining majority of 77% used hand written prescriptions or a combination of both.[3] Evidence indicates that handwritten prescriptions are prone to errors and often do not provide all the information necessary for a complete chemotherapy order.[4,5]

The Systemic Treatment Program at Cancer Care Ontario aims to ensure safe, high quality systemic treatment is available to Ontarians, as close to home as possible. In the area of oral chemotherapy prescribing a provincial goal of eliminating hand written and verbal oral chemotherapy orders has been set. Preprinted orders (PPO) are protocol-specific paper order forms on which the standard order information is preprinted. They help simplify and standardize the ordering process given that many key components to complete the order are identified for completion.[6] In addition, PPOs may also reduce errors related to dosing, transcription and omission. The effectiveness of PPO was determined in a study by measuring the number and type of errors associated with three sequential methods of ordering: handwritten orders, preprinted orders, and computerized physician order entry (CPOE). The results revealed that there was a statistically significant reduction in the rate of problematic order sets and incidence of error capable of causing harm with preprinted order sets compared to handwritten orders.[7] To facilitate development and uptake of PPOs, a few guidelines have been created: Canadian Association of Provincial Cancer Agencies (CAPCA) Guidelines for Developing Ambulatory Chemotherapy Preprinted Orders[5], American Society of Clinical Oncology (ASCO) and the Oncology Nursing Society (ONS) (ASCO-ONS) Chemotherapy Administrations Safety Standards[3], Institute for Safe Medication Practices (ISMP's) Guidelines for Standard Order Sets.[8]

PROCESS

An environmental scan of publicly available PPOs from other provincial cancer agencies was conducted. Additionally, examples of oral chemotherapy PPOs or oral take home prescriptions were obtained from various regions within Ontario. Major guidelines and legislative requirements by the Ontario College of Pharmacists (OCP) and College of Physicians and Surgeons of Ontario (CPSO) on the development of PPO for oral chemotherapy drugs were also reviewed. Finally, a list of recommended criteria was vetted through two existing CCO working groups that included physicians, pharmacists (hospital and community) and nurses for comments and feedback.

This document outlines the key criteria that are recommended on a PPO for oral chemotherapy take home prescriptions. Mandatory requirements from the CPSO and OCP are also noted.

RECOMMENDED COMPONENTS OF A PPO FOR ORAL TAKE HOME CHEMOTHERAPY

Based on current practice, the literature and legislative requirements, CCO identified the following recommended and optional components of a PPO for oral take home chemotherapy (see Table 1). The identified information is deemed essential on a PPO to facilitate the safe dispensing of oral chemotherapy in community retail pharmacies.

Hospital Identifiers: Hospital name, address and phone number of oncology clinic or inpatient unit are essential to allow traceability of the prescription to the originating facility. In the case where a prescriber is not associated with a hospital, this information may be omitted.

Patient Identifiers: Patient name, date of birth, address and phone number should be present on the prescription. A minimum of two patient identifiers are recommended by CAPCA, ASCO, and ISMP to mitigate risk of the wrong patient receiving the prescription. OCP mandates inclusion of at least two identifiers (i.e. name and address) while CPSO mandates inclusion of patient name and recommends the inclusion of address and date of birth when appropriate. In order to further reduce the risk of the wrong patient receiving the medication, especially when patients have the same name and live at the same address (e.g. John Smith Jr. and John Smith Sr.), CCO recommends that the following be included: patient's date of birth in addition to the name, address and phone number.

Allergies: Allergy status is recommended as per ASCO, ISMP, and CAPCA. CCO also recommends documenting the symptoms associated with the allergy for clarity (e.g. rash, shortness of breath).

Prescriber Information: Prescriber's name, signature, CPSO number, and phone number/fax number are mandated on a prescription by OCP and CPSO.

Document Identifier: Title of document (e.g. regimen code as per CCO's Drug Formulary nomenclature), date the prescription is generated and page number are deemed essential components of a PPO for oral chemotherapy. It is important to note that the date the prescription is generated is distinct from the start date of the treatment cycle, which is part of the dosing schedule. The prescription date is a mandated requirement of the OCP and CPSO. Page numbering (e.g. 1 of 2) is included to ensure identification of missing pages for both the prescriber and the dispensing pharmacist. CCO also recommends the inclusion of the version code (e.g. v0.1) as an optional component on the PPO because the guidelines advocate that it ensures that the most updated version is used.

Chemotherapy Protocol and Dosing Schedule: Drug name, dose, route of administration, instructions for patients (e.g. number of tablets to take and frequency), quantity, and repeats are components of a prescription mandated by the regulating colleges. CCO recommends that repeats should not be made available for antineoplastic drugs, consistent with recommendations from ASCO. If deemed necessary and appropriate, a higher quantity may be prescribed with the frequency specified (e.g. Mitte 90, dispense 30 every 30 days). Instructions for patients should include information such as number of rest days and treatment days when appropriate. The start date, using calendar date (e.g. June 24 instead of

Day 1) is recommended where appropriate. Additionally, any special instructions, if applicable, should be noted.

Cycle number and cycle days are recommended information pertaining to the drug and regimen. Number of planned cycles is optional but recommended to be included with cycle number (e.g. cycle 3 of planned 6 cycles). This may assist with inventory management or to alert of potential non-adherence or inadvertent under-prescribing or over-prescribing. When treatment is for metastatic disease, the number of planned cycles may be omitted.

Dose Modification: Dose modifications should be clearly indicated. The reason for dose modification and new dose, as a % of total dose, are essential of a prescription.

Example: Dose mg/m^2 x BSA m^2 x ___% dose = total dose.

Height, Weight, and BSA: ASCO, CAPCA and ISMP recommend inclusion of height (cm or m), weight (kg), and BSA (as appropriate) to facilitate verification of the dose.

Supportive Care Medications: As recommended by ASCO and ISMP, supportive care medications such as antiemetic medications that are specific for the oral chemotherapy agent(s) should be included in the PPO. This will help ensure that these medications are prescribed at the same time as oral chemotherapy medication. Prescribers will be able to order repeats on these medications.

Drug Coverage: Inclusion of relevant provincial public funding criteria codes (e.g. Limited Use) and a checkbox to indicate an approval for drug coverage under the Exceptional Access Program if applicable is recommended and deemed essential for a PPO.

Clinical Parameter: In order to facilitate the clinical verification of the prescription, CCO recommends a check box with a statement indicating that lab work (e.g. blood work, urinalysis) has been verified by a regulated health professional in the oncology clinic along with a field for a signature. Additionally, a second check box with a statement indicating that the prescription has been verified by a registered nurse or pharmacist in the oncology clinic along with a field for a signature is recommended to facilitate an independent double check. While there are cancer centres that have successfully implemented a process for an independent clinical verification of the prescription, this is not the current standard in Ontario. Despite the challenges, it is recommended that independent prescription verification at the cancer centre be the gold standard. The dispensing pharmacist must still fulfill his/her professional obligations to ensure the appropriateness of the prescription. The inclusion of drug-specific lab work results may be considered in the event that a registered nurse or pharmacist in the cancer clinic is not available to review the prescription.

References

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3. Ahmad N, Simanovski V, Hertz S, Klaric G, Kaizer L, Krzyzanowska MK. Oral chemotherapy practices in Ontario cancer centres. *J Oncol Pharm Prac* April 8, 2014
4. Neuss M, P. M. (2013). American Society of Clinical Oncology/Oncology Nursing Society Chemotherapy Administration Safety Standards. *Journal of Oncology Practice*, 5s-13s.
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7. Meisenberg B, W. R.-C. (2013). Reduction in Chemotherapy Order Errors With Computerized Physician Order Entry. *Journal of Oncology Practice*, 1-5.
8. ISMP. (2010). ISMP's Guidelines for Standard Order Sets. 1-5.

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Table 1: Key Components on a Pre-Printed Order for Oral Chemotherapy Take Home Prescriptions

Element	Sub-element	Reference	Legislation
Hospital Identifier	Name	n/a	n/a
	Address	n/a	n/a
	Phone # of oncology clinic/unit	n/a	n/a
Patient Information	Patient's name, address, DOB, phone #	CAPCA, ASCO, ISMP	OCP*, DPRA*CPSO† *Patient name and address required. †Patient name required; use of address and DOB when appropriate.
	Diagnosis/Indication	CAPCA, ASCO, ISMP	n/a
	Allergies	ASCO, ISMP	n/a
Prescriber Information	Name	ASCO, ISMP	OCP,CPSO,DPRA
	Signature	ISMP	OCP,CPSO,DPRA
	CPSO #	ISMP	CPSO
	Office Phone # / fax #	ISMP	CPSO
	Address (if different than hospital)	n/a	OCP,CPSO,DPRA
Document Identifier	Title of document (CCO regimen code)	n/a	n/a
	Date Rx generated	CAPCA, ASCO	OCP,CPSO,DPRA
	Page no (of total)	ASCO, ISMP	n/a
	Version**	ASCO, ISMP	n/a
Chemotherapy Protocol	Cycle #	CAPCA, ASCO	n/a
	Cycle days	ISMP	n/a
	Drug Name	CAPCA, ASCO, ISMP	OCP,CPSO,DPRA
	Dose, Route, Frequency	CAPCA, ASCO, ISMP	OCP,CPSO,DPRA
	Instructions for patients	CAPCA, ASCO, ISMP	OCP,CPSO,DPRA
	Quantity (specify for all strength required)	CAPCA, ASCO	OCP,CPSO,DPRA
	No Repeats	CAPCA, ASCO	CPSO

Dose Modification	Indicate a change from previous dose		n/a
	Reason	CAPCA, ISMP	n/a
	New Dose (as % of total dose)	CAPCA, ISMP	n/a
Height, Weight, BSA	Height, Weight, BSA (if applicable)	CAPCA, ASCO, ISMP	CPSO
Supportive Care Medications	Drug Name	ASCO, ISMP	n/a
	Dose		n/a
	Instruction		n/a
	Indication		CPSO* *if prescribed prn
	Quantity		n/a
	Special Precaution if applicable	n/a	n/a
	Repeat	n/a	n/a
	Other medication(s) if applicable	n/a	n/a
Drug Coverage	LU Code	n/a	n/a
	EAP application status if applicable	n/a	
Clinical Parameter	Check box along with statement indicating that lab results have been verified by a regulated health professional with oncology experience AND signature	CAPCA, ASCO Recommend prescription verification by Oncology Health Professional and a check mark to indicate if blood work has been assessed. Can be the same individual as the prescriber.	n/a
	Check box along with statement indicating that prescription has been verified by a nurse or pharmacist with oncology experience AND signature		
	Drug-specific lab parameters**		

**** Denotes optional components**