### INTRODUCTION

- Improving the safety of oral chemotherapy has been identified as a priority item in the provison of systemic treatment.
- Guidelines were recently developed by the Toronto Central South Regional Systemic Treatment Program outlining suggested requirements for the prescribing, dispensing, supply, administration and monitoring of oral anticancer medications.
- Mount Sinai Hospital (MSH) was selected as the site within this region to pilot preprinted order sets for oral anti-cancer agents due to relative ease of implementation; our site utilizes a paper-based system for prescription of chemotherapy.
- The Mount Sinai Hospital (MSH) Oncology Unit provides systemic treatment for approximately 440 new patients annually and 9100 patient visits. There are seven oncologists who primarily focus on colorectal, lung and breast cancers and sarcoma.
- The majority of outpatient prescriptions for patients are dispensed from the outpatient pharmacy at MSH.
- Non-standardized ordering of anti-cancer agents was identified as a potential area of risk.

### OBJECTIVES

1. To improve the safety of oral anti-cancer medications in the ambulatory setting.
2. To design a framework for prescribing; to ensure that necessary information is available for the dispensing pharmacist to perform verification to the same standards as intravenous chemotherapy.
3. Ensure the patient is educated and able to safely self-administer the medication.

### RESULTS

Eight pre-printed order sets were created.
- gefitinib
- erlotinib, crizotinib
- capcitabine for the treatment of:
  - Colorectal cancer
  - Breast cancer
  - Rectal cancer (with concurrent radiation)
  - Breast cancer (in combination with lapatinib)
  - Gastric cancer (in combination with epirubicin and cisplatin = ECX)

The pre-printed order sets contain the following information in a double-sided format:
- Protocol (drug name) and indication
- Acknowledgement that clinical parameters have been reviewed
- Baseline dosing schedule
- Height, weight and body surface area where applicable
- Dose expressed as mg/m² as well as actual dose
- Rationale for dose adjustments
- Monitoring parameters
- Associated supportive medications
- Drug coverage information
- Counseling information. Basic counseling information, including storage, missed doses, disposal, applicable to all oral medications was adapted from the MASCC Oral Agent Teaching Tool (MOATT). Reference is made to the Cancer Care Ontario Patient Information sheets and key counseling criteria outlined. The form also provides a tool for communicating between clinic and outpatient pharmacists.

### IMPLEMENTATION

- Oncology staff provided feedback on the PPOs during the review process
- Education was provided to all staff members regarding the new process for safe prescription of oral anti-cancer agents
- While detailed patient education is usually provided by the oncology pharmacist, outpatient pharmacists also have an educational role to fulfill
- Knowledge gaps were recognized with outpatient pharmacists
- An educational session was designed specifically to address oral anti-cancer agents prescribed from the MSH Oncology Clinic. The presentation to outpatient pharmacists included a review of agents and their mechanism of action and training on order verification, drug access and patient counseling.

### CONCLUSIONS

- The pre-printed order sets were introduced to the clinic in September. There has been good uptake in the 6 weeks of use, requiring extra printing of certain forms.
- An audit is planned for early 2014 to gauge compliance, identify changes necessary and to determine the percentage of call backs required for order clarifications.

### REFERENCES


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