Appropriate Prescribing of Antiemetics with Oral Oncolytic Therapy, a Single Center Experience

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Background

Chemotherapy-induced nausea and vomiting (CINV) is a common and significant side effect of chemotherapy and has a high impact on the patient's overall quality of life. As oral oncolytic therapies (OOT) become a more common treatment option for patients with cancer, they can pose unique challenges for both healthcare providers and patients. Unlike infusion therapies, in which the therapy is infused on a single day, oral oncolytics may require daily dosing throughout a treatment cycle and therefore require patients to be more proactive in terms of supportive care monitoring and prevention. Existing guidelines including The American Society of Clinical Oncology (ASCO), Multinational Association of Supportive Care in Cancer/European Society of Medical Oncology (MASCC/ESMO) and the National Comprehensive Cancer Network (NCCN) address the emetogenic potential of oral therapies and their management. [1,2,3] However, these guidelines are more easily applied to parenteral therapies that are most often ordered together in an order set. While there has been movement to embed oral therapies into order sets to better bundle necessary supportive care there are many gaps across practice locations. At our institution, we have not yet moved to include OOT in our order templates and supportive care agents are often ordered independently of the OOT. Despite the frequency of office visits and close relationships between patient and providers, preliminary review of internal institutional data suggests a moderate level of discordance between oral chemotherapy and antiemetic prescribing for oncology patients.

Objectives

- Review appropriate prescribing of antiemetics in conjunction with oral oncolytic therapy in the ambulatory setting
- Evaluate the potential opportunity to enhance medication safety and improve vigilance of concurrent prescribing with pharmacist involvement

Methods

- Single academic medical center quality improvement study
- All patients with OOT requiring antiemetic prophylaxis per guidelines and sent to the Hospital of the University of Pennsylvania (HUP) Specialty pharmacy from January through December of 2018 were reviewed for concurrent, active antiemetic prescriptions.
- Identified patients were evaluated for adverse events as documented in the electronic health record

Results

Over 12 months 1,630 OOT prescriptions were sent for a total of 354 patients. From that group patients were excluded for the reasons outlined in Table 1 which identified 86 patients with discordant antiemetics. Further chart evaluation of the 86 patients narrowed to 22 patients who lacked antiemetic orders (Table 2). Of the 22 patients identified, 14% reported CINV that needed to be managed. (Table 2)

Table 1. Exclusions

Non-HUP Penn Pharmacy	26 (7.3%)
Outside Pharmacy	91 (25.7%)
Did not start therapy	5 (1.4%)
Appropriate antiemetics	151 (42%)

Results

Table 2. Patients Lacking Antiemetic Orders N=86

Previous antiemetic Rx identified	60
Antiemetic given with IV chemo	5
No antiemetics identified	22

Table 3. Outcomes*

CINV reported	3 (14%)
Hospitalization (disease progression)	5(23%)
Lost to follow up	2 (9%)
No reported events	10 (46%)

* There were no reports of severe nausea and vomiting that required urgent care or hospitalization.

Conclusions

- OOT is an increasingly common therapy with unique risks associated with prescribing practices.
- Developing a program to increase pharmacist involvement with prescribing and counseling of oral chemotherapy harnessing the existing electronic health record.
- Metrics to be measured as part of this program include appropriate supportive care medications, hospitalizations and quality of life.

References

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Disclosures

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