The Ontario Steering Committee for Cancer Drugs (OSCCD) Recommendations and Reasons

Date Created: June 15, 2015

Antiemetics for Treatment of Chemotherapy-Induced Nausea and Vomiting (CINV)

Product(s): Aprepitant, dolasetron†, ondansetron, granisetron

Class of Drugs: Antiemetics

Reason for Use: Prevent or control nausea and/or vomiting caused by drugs used to treat cancer

Manufacturer: Numerous

Date of Review: November 25, 2013

Key Points

- Chemotherapy induced nausea and vomiting (CINV) is a common and distressing side effect of cancer treatment.
- Antiemetics are a group of medicines that can prevent or reduce the likelihood and severity of CINV.
- Aprepitant, granisetron, and ondansetron are antiemetics that are currently publicly funded under the Ontario Drug Benefit Program (ODB).
- Based on new research and guidelines, Cancer Care Ontario's (CCO) Systemic Treatment Program submitted a funding request to the Ministry of Health and Long-Term Care (Ministry) to revise the existing funding criteria for three antiemetic drugs.
- The OSCCD advised the Ministry to update the existing funding criteria and expand coverage based on evidence of benefit and safety and potentially reducing overall health care costs.
- The Ministry has revised the conditions for the funding for the reviewed antiemetic drugs which expands coverage for patients with CINV.
- Prescribers should review updated guidelines and funding criteria to ensure antiemetics are used appropriately.

OSCCD Recommendation

The OSCCD recommended that the funding criteria for aprepitant, dolasetron†, granisetron, and ondansetron be revised based on efficacy and safety evidence and the potential for cost-savings to the health care system.

Executive Officer Decision

Informed by the OSCCD recommendation, the Executive Officer decided to revise the existing funding criteria and expand the coverage for aprepitant, dolasetron†, granisetron, and ondansetron.

Ontario

Ontario
Cancer Care Ontario
Action Cancer Ontario

Funding Status*

Funded through the Ontario Drug Benefit (ODB) Formulary as Limited Use benefits. For current eligibility criteria, please refer to the ODB Formulary website.

About the Ontario Steering Committee for Cancer Drugs (OSCCD)

The OSCCD was created in 2013 to enhance and support the administration of Ontario's cancer drug programs. The committee advises the Ministry of Health and Long-Term Care's Ontario Public Drug Programs (OPDP) and Cancer Care Ontario's (CCO) Provincial Drug Reimbursement Programs.

The OSCCD's objective is to provide evidence-based clinical, health research and health economic guidance to the Executive Officer (EO) of OPDP on provincial cancer drug funding policies and decisions, program evaluation and drug-specific studies, and enhancements to cancer drug programs or initiatives in Ontario.

The OSCCD consists of members with expertise in oncology, hematology, pharmacy, pharmacology, health economics, and a patient representative.

**This information is current as of the posting date of the document. For the most up-to-date information on Executive Officer decision and funding status, see the Ministry's Status for Single Source Submissions website.*

†At the time of this review, dolasetron was included in the OSCCD review. Dolasetron has subsequently been withdrawn from the Canadian market and is not currently listed on the ODB Formulary.

Summary of OSCCD Review

Background

Nausea and vomiting (emesis) caused by cancer drugs is referred to as chemotherapy-induced nausea and vomiting (CINV). Patients have identified nausea and vomiting as the most feared adverse effects of chemotherapy. It may occur within 24 hours (acute) or after 24 hours (delayed) of receiving chemotherapy. Uncontrolled CINV can lead to a delay or discontinuation of a patient's chemotherapy and can affect a patient's quality of life; it can also result in unplanned hospital visits.

Patients prefer cancer treatments that are easy to take and improve quality of life. Patients are more likely to finish their chemotherapy, return to work, maintain good eating habits and participate in social and daily activities when there is good antiemetic control.

The goal of antiemetic treatment is to prevent CINV completely. The three types of drugs used in the management of CINV include the neurokinin-1 (NK-1) receptor antagonists (e.g., aprepitant) serotonin or 5-HT3 receptor antagonists (e.g., dolasetron, granisetron, ondansetron), and glucocorticoids (e.g., dexamethasone). Choice of therapy is guided by the patient's risk of experiencing nausea and vomiting which depends on the type of chemotherapy regimen used and patient-specific risk factors. Chemotherapy regimens are classified as highly emetogenic chemotherapy **(HEC):** more than 90% risk of vomiting; moderately emetogenic chemotherapy **(MEC):** 31-90% risk of vomiting, low emetic risk chemotherapy: 10-30% risk of vomiting or minimal emetic risk chemotherapy: less than 10% risk of vomiting.[1]

CCO's Antiemetic Working Group's 2013 Antiemetic Report ("report") contains updated recommendations for the treatment of acute and delayed CINV which was based on a review of the available clinical evidence. Based on this report, CCO's Systemic Treatment Program requested that the eligibility criteria for the currently publicly funded antiemetics (i.e., aprepitant, ondansetron, granisetron, dolasetron[†]) be revised to align with this report.

Highlights of Discussion

- **The Committee recommended the use of three-drug combination therapy for patients on a HEC regimen**

  Two clinical trials showed that the combination of aprepitant, a 5-HT3 antagonist, and dexamethasone was more effective than the previous treatment approach for those receiving non-cisplatin based regimens categorized as HEC or MEC.[2,3] Another clinical trial showed that this three-drug combination was also effective for patients receiving multi-day cisplatin based regimens categorized as HEC.[4]

  The National Comprehensive Cancer Network and Multinational Association of Supportive Care in Cancer/European Society for Medical Oncology also recommended this three-drug combination therapy.[5,6]

- **The Committee recommended the use of 5-HT3 antagonists for patients on MEC regimen**

  Multiple major antiemetic guidelines recommend the use of 5-HT3 antagonists in combination with dexamethasone for patients on MEC regimens.[5,6,7]

  The Committee agreed with CCO's report that advised the use of 5-HT3 antagonists and dexamethasone, on day 1 only, for patients on MEC regimens.

- **The Committee recommended the use of aprepitant as second-line therapy for patients on a MEC regimen**

  As shown in a clinical trial, aprepitant is effective in patients on MEC in the second line setting. These patients have inadequate symptom control despite using a 5-HT3 antagonist and dexamethasone.[3]

- **The Committee recommended the duration of use for 5-HT3 antagonists should not exceed 24 hours**

  The Committee agreed with the report's recommendation of administering 5-HT3 receptor antagonists on day 1 only for both HEC and MEC regimens. The Committee noted that reducing the duration of use of 5-HT3 antagonists from 72 hours to 24 hours was a major change in practice.

- **The Committee noted the potential for cost-savings with the proposed funding criteria**

  The impact to the Ontario health care budget will vary depending on whether prescribers adhere to the report recommendations.

  The Committee highlighted the importance of an active dissemination strategy to increase awareness of the change, influence practice and achieve cost savings.

Assessment

The Committee noted that aprepitant and 5-HT3 antagonists are efficacious in appropriately selected patients at risk for significant CINV. The Committee agreed that revising the current funding criteria to align with CCO's 2013 Antiemetic Report may provide improvements in quality of life for patients on chemotherapy. There is also a potential for cost-savings to the Ontario health care system. However, the budget impact is uncertain due to unpredictability in prescriber adoption of the new recommendations. An active dissemination strategy, such as incorporating the changes into the computerized prescriber order entry systems, updating the regimen monographs, and education of clinicians will be essential.

References

[1] Antiemetic Working Group. Antiemetic Report. Clinical Evidence for Recommendations. Cancer Care Ontario. October 2013. http://www.cancercare.on.ca/CCO_DrugFormulary/Pages/FileContent.aspx?fileId=288895.

[2] Warr DG, Hesketh PJ, Gralla RJ et al. Efficacy and tolerability of aprepitant for the prevention of chemotherapy-induced nausea and vomiting in breast cancer after moderately emetogenic chemotherapy. J Clin Oncol 2005;23:2822-30.

[3] Rapoport BL, Jordan K, Boice JA et al. Aprepitant for the prevention of chemotherapy-induced nausea and vomiting associated with a broad range of moderately emetogenic chemotherapies and tumor types: a randomized double-blind study. Support Care Cancer 2010;18:423-31.

[4] Albany C, Brames MJ, Fausel C et al. Randomized, double-blind, placebo-controlled, phase III cross-over study evaluating the oral neurokinin-1 antagonist aprepitant in combination with a 5HT3 receptor antagonist and dexamethasone in patients with germ cell tumors receiving 5-day cisplatin combination chemotherapy regimens: a Hoosier oncology group study. J Clin Oncol 2012;30:3998-4003.

[5]National Comprehensive Cancer Network. Antiemesis. NCCN Guidelines. [Internet]. Version I. 2012

[6] Gralla RJ, Roila F, Tonato M et al. Multinational Association of Supportive Care in Cancer/European Society for Medical Oncology Antiemetic Guideline 2013.

[7] Basch E, Prestrud AA, Hesketh PJ et al. Antiemetics: American Society of Clinical Oncology clinical practice guideline update. J Clin Oncol 2011;29(31):4189-98.

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