



Positive Quality Intervention: Granisetron Transdermal System (Sancuso®) for Chemotherapy Induced Nausea and Vomiting

Description: The granisetron transdermal system is a 5-HT₃ Receptor Antagonist (5-HT₃ RA) that allows for an alternate medication delivery compared to oral or parenteral administration. The purpose of this PQI is to review appropriate patient identification and discuss clinical considerations for the use of granisetron in chemotherapy induced nausea and vomiting (CINV).

Background: The granisetron transdermal system is approved for the prevention of nausea and vomiting in patients receiving moderately and/or highly emetogenic chemotherapy (MEC and/or HEC) for up to 5 consecutive days.¹ Current practice guidelines include granisetron transdermal system/patch as a 5-HT₃ RA option for use in the prevention of acute and delayed intravenous MEC and HEC chemotherapy.² It is also a choice in high to moderate chemotherapy emesis prevention.³ Due to the transdermal route of administration, this may be an alternative for patients on chemotherapy who are unable to take or retain oral antiemetics, including patients who have symptoms or side effects such as oral mucositis or dysphagia, those with gut motility issues, and those receiving concomitant radiation plus chemotherapy treatment. The pharmacokinetic profile of the formulation reveals continuous delivery of granisetron through the skin for over 6 days.⁴

PQI Process: Based on clinical practice experience, consider using the granisetron transdermal system in the following situations:

- Moderate to highly emetogenic multi-day chemotherapy
- Difficulty swallowing tablets due to oral mucositis, tumor location, vomiting
- Combination radiation + chemotherapy (head and neck regimens, etc.)
- No intravenous access
- Limited gut motility and absorption due to opioids or tumor location
- Difficulty remembering to take oral medications
- Refractory nausea and vomiting despite receiving appropriate preventative anti-emetics

Upon receipt of an order for granisetron transdermal system:

- Ensure appropriateness of use in either MEC/HEC intravenous or high/moderate oral chemotherapy
- Check start date of chemotherapy cycle
 - Apply 1 patch (3.1 mg) 24-48 hours on clean, dry, intact skin on the upper outer arm prior to the start of chemotherapy (or on the last day of multi-day intravenous chemotherapy) (do not cut)
 - Wear throughout chemotherapy treatment up to 7 days total
 - Remove at least 1 day (24 hours) after chemotherapy completed
- Discuss the use of surgical bandages/medical adhesive tape at the edges of the transdermal system to keep in place
 - Provide a prescription for a rescue medication (ex. prochlorperazine, metoclopramide) to assist with breakthrough [nausea and vomiting](#)
 - Other 5-HT₃ RA such as ondansetron should not be used as rescue medications to avoid QT prolongation, constipation, and headache

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Patient-Centered Activities:

- Application Instructions
 - Ensure that patients understand where to apply the patch
 - Educate on avoiding sunlight and heating sources (heating pads, tanning beds, hot baths)
- Patient Education
 - Review common side effects which include constipation and headache
 - [Constipation](#) – provide recommendations for a stimulant laxative (bisacodyl, sennosides) PLUS a stool softener
 - Explain when to apply and remove the patch – a calendar would assist
 - Remind to keep patch area covered under clothing and for another 10 days after the patch is removed to avoid potential skin reactions from natural or artificial sunlight
- Patient Assistance: [NCODA Financial Assistance Tool](#)

References:

1. [Sancuso® \(granisetron transdermal system\) \[package insert\]](#).
2. Boccia RV, Gordan LN, Clark G et al. Efficacy and tolerability of transdermal granisetron for the control of chemotherapy-induced nausea and vomiting associated with moderately and highly emetogenic multi-day chemotherapy: a randomized, double-blind, phase III study. Support Care Cancer. 2011; 19: 1609-1617.
3. National Comprehensive Cancer Network. Antiemesis: https://www.nccn.org/professionals/physician_gls/pdf/antiemesis.pdf .
4. Howell J, Smeets J, Drenth H, et al. Pharmacokinetics of a granisetron transdermal system for the treatment of chemotherapy-induced nausea and vomiting. J Oncol Pharm Practice. 2009; 15: 223-231.