Characterization of Prophylactic Antiemetic Regimens in Pediatric Patients Receiving Moderately and Highly Emetogenic Chemotherapy

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These agents are commonly reserved for patients with chemotherapy. Recommendation supports the need to add an agent with a different mechanism of action to replace the corticosteroid within the antiemetic regimen. No studies have shown one agent or strategy to be superior.

Background:
- American Society of Clinical Oncology (ASCO) recommends a serotonin (5-HT3) antagonist plus a corticosteroid for pediatric patients receiving MEC or HEC.
- Pediatric Oncology Group of Ontario (POGO) suggests nilonibone or chlorpromazine with a 5-HT3 antagonist in patients with a contraindication to corticosteroids.
- These agents are commonly reserved for patients with breakthrough CINV due to undesirable side effects.
- Recommendation supports the need to add an agent with a different mechanism of action to replace the corticosteroid within the antiemetic regimen.
- Pediatric-specific recommendations are lacking for incorporation of newer agents into prophylactic antiemetic regimens.
- Breakthrough emesis is a significant problem.

Purpose:
The objective of this study is to characterize the prophylactic antiemetic regimens used in pediatric hematologic/oncology patients receiving moderately and highly emetogenic chemotherapy (MEC/HEC) and to describe the modifications to their antiemetic regimens with subsequent courses of chemotherapy.

Study Design:
- Retrospective medical record review
- Inclusion criteria:
  - Patients less than 18 years of age at time of first MEC or HEC course between July 1, 2008 to June 30, 2013
  - Receipt of first MEC or HEC course for an oncologic diagnosis during an inpatient admission to a pediatric service
  - Patients must have received at least one subsequent course of MEC or HEC during an inpatient admission to pediatric hematologic/oncology service to be evaluated for modification of antiemetic regimen
- Exclusion criteria:
  - Patients 18 years of age and older at time of first MEC or HEC course
  - Outpatient chemotherapy administrations
  - Patients with documented nausea and/or vomiting related to cause other than chemotherapy
  - Patients who received radiation therapy prior to initiation of chemotherapy

Methods:
- Pediatric hematology/oncology admission records will be used to generate a list of patients
- Emetogenicity will be classified as reported by the NCCN guidelines.
- Patient data to be collected will include:
  - Age, gender, body weight, body surface area
  - Diagnosis
  - Chemotherapy regimen (protocol, drug, dose, route, frequency, days of administration, number of doses)
  - Emetic events
  - Antiemetic adverse drug reaction history
- Following data collection, the percentages of pediatric oncology patients receiving MEC or HEC who experience breakthrough nausea and/or vomiting will be calculated. Of those patients, the percentage who had their antiemetic regimen modified for subsequent courses of chemotherapy will be calculated.

Disclosure:
Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.
- Jessica Degiacomo – nothing to disclose
- Kristin Held – nothing to disclose

References: