Background

- More than 70% of patients receiving chemotherapy will experience chemotherapy-induced nausea and vomiting (CINV).
- Chemotherapeutic regimens are classified as:
  - Highly emetogenic
  - Moderately emetogenic
  - Low potential
  - Minimal risk for emesis
- The National Comprehensive Cancer Network (NCCN) has classified carboplatin emetogenicity according to the AUC (target area under the concentration versus time curve) with a carboplatin AUC ≥4 classified as highly emetogenic and carboplatin AUC <4 as moderately emetogenic – but highly emetogenic in certain patients.
- This study assessed use of antiemetic agents in carboplatin-based regimens.

Methods

- This study consisted of a retrospective analysis of administrative claims from multiple commercial health plans.
- Claims from January 1, 2010 through October 31, 2017 were analyzed (Figure 1).
- The index date for each patient was the first medical claim of the chemotherapeutic regimen of interest (Figure 1).
- Included patients:
  - Had at least one (1) medical claim for the selected chemotherapeutic regimen.
  - Were eligible for both medical and pharmacy benefits for at least six (6) months prior to and 12 months post-index date.
- CINV-related hospitalizations and emergency department (ED) cost and utilization were assessed for patients treated with selected regimens.

Results

- In total, 4,430 mostly female (74%) patients met criteria for treatment with a selected index regimen.
- Between 2010 and 2017, the following trends were noted in the study population:
  - Adherence to NCCN-recommended 3 drug CINV prophylaxis (triplet therapy) ranged from about 23% to 35% (Figure 2).
  - 4.5% of examined chemotherapy cycles had an associated CINV-related emergency department (ED) visit with an average cost of $5,654 per visit (Table 1).
  - 0.26% of examined chemotherapy cycles had an associated CINV-related inpatient admission with an average cost of $14,488 per admission (Table 1).

Conclusion

- Guidelines recommend use of up to three agents in the prevention of chemotherapy-induced nausea and vomiting.
- Use of a triplet therapy for CINV prophylaxis in carboplatin-based highly emetogenic regimens has increased over time in the plans analyzed and may offer an opportunity to reduce rates of CINV-related hospitalizations and ED visits, as well as associated costs.

Disclosures

- This research was funded by TESARO, Inc.

Resources


Table 1. Acute CINV-Related Costs

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<tr>
<th>Line of Business</th>
<th>All</th>
<th>AC*</th>
<th>Carboplatin</th>
<th>Cisplatin</th>
<th>Oxaliplatin</th>
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<td>Overall</td>
<td>16,488</td>
<td>9,921</td>
<td>5,964</td>
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<td>Emergency Department Cost</td>
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*2017 Data 1/1/2017-10/31/2017

Figure 2. Adherence To Triple Therapy, Selected Regimens for CINV Prevention By Year – Commercial