BACKGROUND
- Patients with cancer undergoing treatment often experience chemotherapy-induced anemia (CIA).
- Epoetin alfa (EPO) and darbepoetin alfa (DARB) are two erythropoiesis-stimulating agents (ESAs) that have received FDA approval for the treatment of CIA in patients with nonmyeloid malignancies.
- The dosing and outcome study of Erythropoiesis-Stimulating Therapies (OSTS) is an ongoing prospective, observational study that aims to characterize real-world dosing patterns, hematologic outcomes, and patient-reported outcomes in cancer patients.

OBJECTIVE
- To better characterize dosing patterns, hematologic outcomes, and treatment costs of ESAs in chemotherapy-treated cancer patients.

METHODS

CONSIDERATIONS FOR DOSING ANALYSES
- Dosing after a treatment gap of ≥135 days was excluded.
- Dosing frequency was based on the mean interval between ESA doses and reported using the following categories:
  - Every week (QW) ≤ 7 days
  - Every other week (Q2W) ≤ 14 days
  - Every 2 weeks (Q2W) ≤ 28 days
  - Every 3 weeks (Q3W) ≤ 42 days
  - Every 4 weeks (Q4W) ≤ 56 days
  - Every 6 weeks (Q6W) ≤ 84 days
- Additional Exclusion Criteria:
  - Mean number of ESA doses
  - Mean administered dose
  - Mean cumulative administered dose was calculated as the sum of all ESA doses.

RESULTS

Table 2. Dosing Patterns

<table>
<thead>
<tr>
<th>Treatment Duration</th>
<th>EPO</th>
<th>DARB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every week (QW)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Every other week (Q2W)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Every 2 weeks (Q2W)</td>
<td></td>
<td></td>
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<tr>
<td>Every 3 weeks (Q3W)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Every 4 weeks (Q4W)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Every 6 weeks (Q6W)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Dose Conversion Ratio

<table>
<thead>
<tr>
<th>Dose Conversion Ratio</th>
<th>EPO to DARB</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.64</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Transfusion Requirements

<table>
<thead>
<tr>
<th>Transfusion Requirements</th>
<th>EPO</th>
<th>DARB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max number of units transfused</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

CONCLUSIONS
- During this observational study of real-world practice and outcomes, the following was observed:
  - A greater proportion of DARB patients received iron supplementation at baseline compared with EPO patients.
  - Treatment duration was similar between groups.
  - A significantly higher hemoglobin improvement in the EPO group compared with the DARB group.
  - Dose conversion ratio was 148:1 (Units EPO:mcg DARB) in the EPO group based on January 2007 WAC pricing, representing a $886 cost saving per treatment episode.

REFERENCES
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6. Larholt K et al. Poster presented at the 41st American Society of Health-System Pharmacy (ASHP) Midyear Clinical Meeting and Exhibition; December 3-7, 2006; Orange County, CA.
7. Harley C et al. Poster presented at the 3rd Annual Chicago Supportive Oncology Conference; September 27-29, 2007; Chicago, IL.
8. McKenzie RS et al. Poster presented at the 5th Annual Chicago Supportive Oncology Conference; September 27-29, 2007; Chicago, IL.