Cost Savings Opportunity from Utilizing Less Costly Granulocyte Colony Stimulating Factors via Step Therapy on the Medical Benefit

Background

- Granulocyte Colony Stimulating Factors (G-CSFs) are one of the most costly oncology support categories to manage. In 2015, G-CSF spend was $1.99 and $4.32 PMPM for commercial and Medicare lines of business, respectively.
- This cost is largely driven by Neulasta and Neupogen.
- Zanos is the first FDA approved biosimilar to Neupogen.
- Granix is also highly similar to Neupogen, but because it was approved prior to the establishment of the 351(k) biosimilars licensure pathway, it is not considered a biosimilar.
- Recommendations for the Use of WBC Growth Factors: American Society of Clinical Oncology Clinical Practice Guideline suggest that choice of G-CSF agent should be based on convenience, cost, and clinical situation. Clinical similarities and guidelines provide basis for product preference in this category for less costly alternatives.

Objective

- To demonstrate utilization trends and savings potential through implementation of Step Therapy (ST) in the G-CSF category.

Methods

- ST was implemented on October 1, 2016 that required use of Zanos or Granix prior to Neupogen on the medical benefit in clinically eligible patients for a regional health plan with 2.7 million commercial lives.
- Prior Authorization (PA) request information and medical necessity claims data from January 1, 2016 to December 31, 2016 for Granix, Neulasta, Neupogen, and Zanos were analyzed.
- Results from Q2, 2016 were compared to averages from Q2 through Q4, 2016, to determine the impact of this ST.
- Market share projections were made using a linear growth model.

Results

- Market share of short acting G-CSF products

<table>
<thead>
<tr>
<th>Product</th>
<th>Q1, 2015</th>
<th>Q2, 2016</th>
<th>Q3, 2016</th>
<th>Q4, 2016</th>
<th>Q1, 2016</th>
<th>Q2, 2016</th>
<th>Q3, 2016</th>
<th>Q4, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neupogen</td>
<td>176</td>
<td>168</td>
<td>179</td>
<td>150</td>
<td>179</td>
<td>162</td>
<td>176</td>
<td>143</td>
</tr>
<tr>
<td>Zanos</td>
<td>310</td>
<td>310</td>
<td>310</td>
<td>310</td>
<td>310</td>
<td>310</td>
<td>310</td>
<td>310</td>
</tr>
<tr>
<td>Granix</td>
<td>1,038</td>
<td>1,038</td>
<td>1,038</td>
<td>1,038</td>
<td>1,038</td>
<td>1,038</td>
<td>1,038</td>
<td>1,038</td>
</tr>
<tr>
<td>Zarxio</td>
<td>810</td>
<td>810</td>
<td>810</td>
<td>810</td>
<td>810</td>
<td>810</td>
<td>810</td>
<td>810</td>
</tr>
<tr>
<td><strong>Change in Utilizers</strong></td>
<td><strong>58%; p=0.0078</strong></td>
<td><strong>58%; p=0.0078</strong></td>
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<td><strong>58%; p=0.0078</strong></td>
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</tbody>
</table>

- Market share of all G-CSF products

<table>
<thead>
<tr>
<th>Product</th>
<th>Q1, 2016</th>
<th>Q2, 2016</th>
<th>Q3, 2016</th>
<th>Q4, 2016</th>
<th>Q1, 2016</th>
<th>Q2, 2016</th>
<th>Q3, 2016</th>
<th>Q4, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neupogen</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Granix + Zarxio</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Neulasta</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Change in Utilizers</strong></td>
<td><strong>21%</strong></td>
<td><strong>21%</strong></td>
<td><strong>21%</strong></td>
<td><strong>21%</strong></td>
<td><strong>21%</strong></td>
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</tr>
</tbody>
</table>

Discussion

- The average total plan spend per quarter on short acting G-CSFs between Q1 and Q3, 2016 is $1,327,710.
- Using wholesale acquisition cost (WAC), the shift in market share among short acting G-CSFs led to $106,980 ($662,278) in cost avoided during Q4, 2016 compared to the average of Q1 through Q3, 2016.
- Utilization data as of September 2017 reflected an 85% market share for Zarxio and Granix among short acting G-CSF products in Q2, 2017, which is on-par compared to the projections made by the linear growth model.
- Limitations to this study include:
  - Savings projections assume both consistent total utilizers for all G-CSF products, stable sfa growth in number of utilizers for Granix and Zarxio, and a corresponding decrease in Neupogen utilization.
  - Cost avoided projections are based on WAC and may be underestimated if a payer is reimbursing based on average sales price (ASP); potential manufacturer discounts are not included.

Conclusion

- A ST through Granix or Zarxio prior to Neupogen is clinically appropriate and can successfully shift market share towards less costly alternative products.
- This management strategy led to a significant shift in market share and may be considered in other classes where biosimilar and/or highly similar products are available.
- As more biosimilars enter the market, product competition and choice will continue to increase. Management opportunities to shift product utilization towards highly similar and cost-effective products can help control rising healthcare costs without compromising quality of care.

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- ST through Granix or Zarxio prior to Neupogen is clinically appropriate and can successfully shift market share towards less costly alternative products.
- This management strategy led to a significant shift in market share and may be considered in other classes where biosimilar and/or highly similar products are available.

References