Magellan Rx MANAGEMENT

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

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Background

- Granulocyte Colony Stimulating Factors (G-CSF) is 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.
- Zarxio 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 preferencing 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 Zarxio 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 claims data from January 1, 2016 to December 31, 2016 for Granix, Neulasta, Neupogen, and Zarxio were analyzed.
- Results from Q4, 2016 were compared to averages from Q1 through Q3, 2016 to determine the impact of this ST.
- Market share projections were made using a linear growth model based on the rate of decrease in number of utilizers for Neupogen.
- Statistical significance was calculated via two-sample equal variance test (α=0.05).

Results

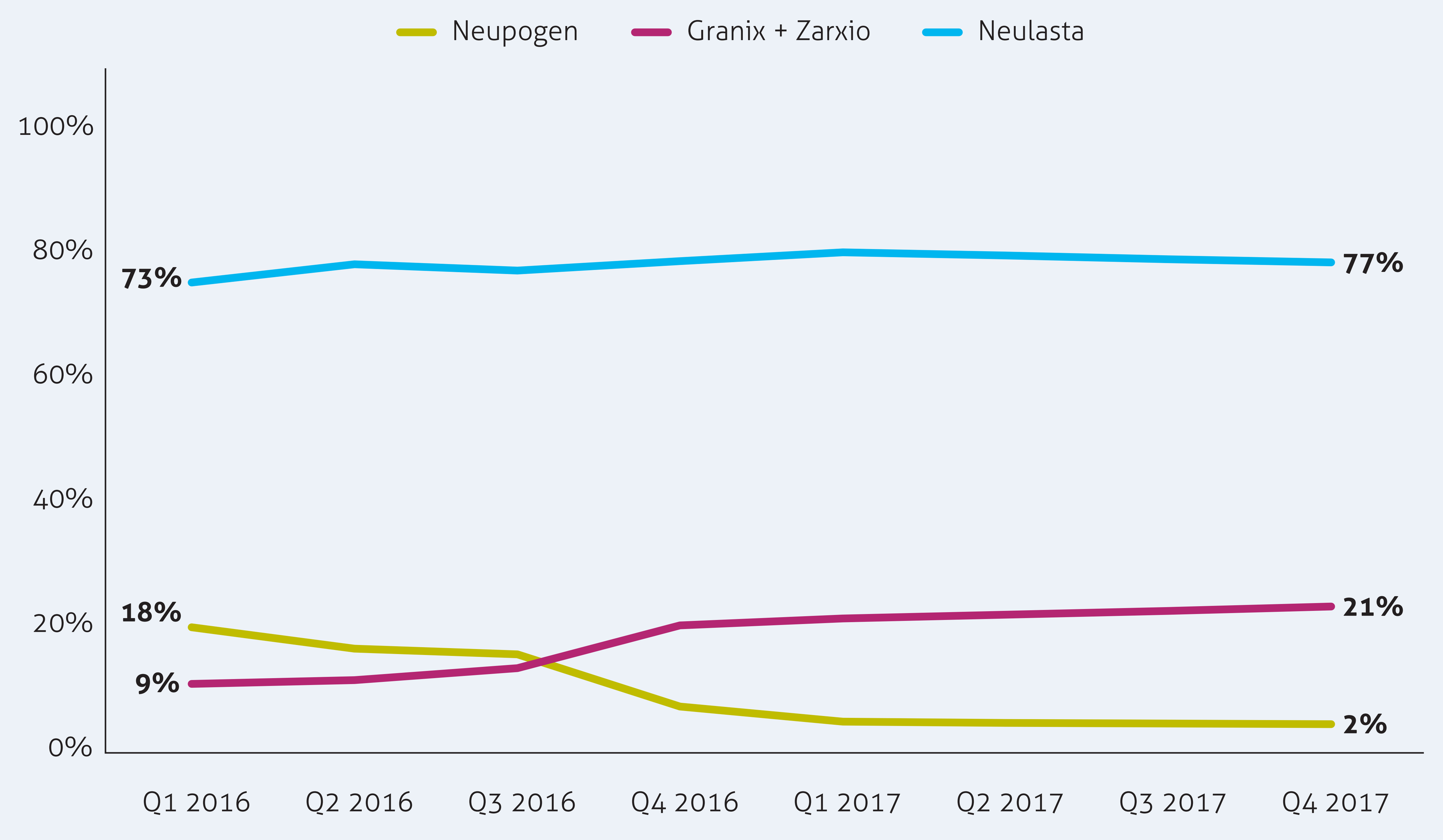
Number of PA Requests

	Granix + Zarxio	Neupogen	Neulasta
Q1, 2016	176	310	1,346
Q2, 2016	137	186	968
Q3, 2016	150	179	1,046
Q4, 2016	216	60	981
Change in PA Requests Between Average Q1-3 and Q4	40%; p=0.019	-73%; p=0.025	-12%; p=0.345

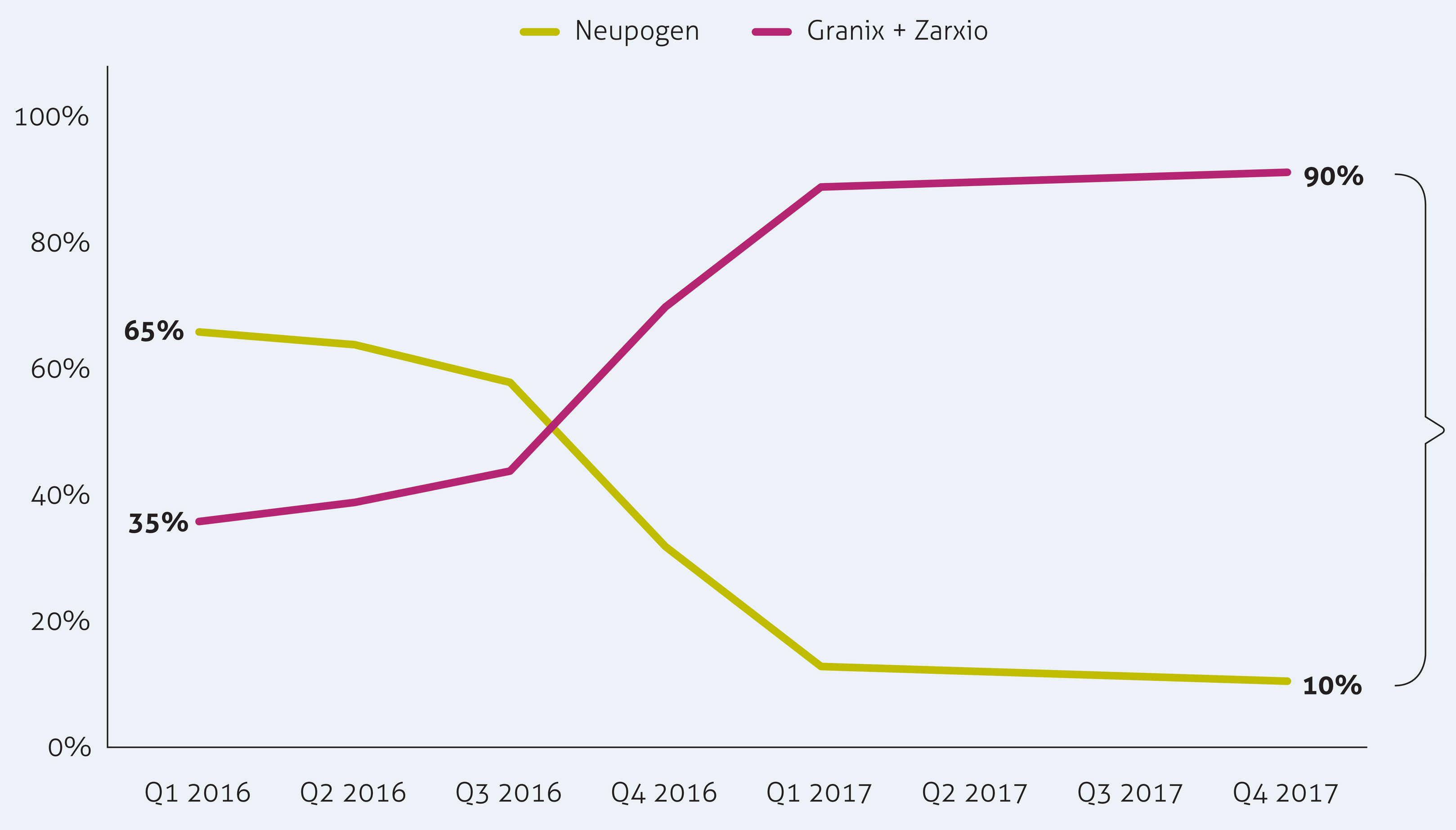
Number of Utilizers

	Granix + Zarxio	Neupogen	Neulasta
Q1, 2016	124	253	1,038
Q2, 2016	109	168	888
Q3, 2016	129	155	863
Q4, 2016	191	54	810
Change in Utilizers Between Average Q1-3 and Q4	58%; p=0.0078	-72%; p=0.035	-13%; p=0.388

Market Share of All G-CSF Products



Market Share of Short Acting G-CSF Products



Projected Cost Avoided:
$662,278

Discussion

- The average total plan spend per quarter on short acting G-CSFs between Q1 and Q3, 2016 is $1,317,710.
- Using wholesale acquisition cost (WAC), the shift in market share among short acting G-CSFs led to $106,980 (8.1%) 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, a stable 4% 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.

References

- Magellan Rx Medical Pharmacy Trend Report 2016.
- Smith TJ, Bohlke K, Lyman GH, et al. Recommendations for the Use of WBC Growth Factors: American Society of Clinical Oncology Clinical Practice Guideline Update. J Clin Oncol. 2015 Oct 1;33(28):3199-212.

Disclosures

- This research was conducted by Magellan Rx Management, Scottsdale, AZ, without external funding.