

The Impact of Immunoglobulin Utilization Management and Dose Optimization in a Regional Health Plan

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Purpose

- To measure the impact of a comprehensive utilization management and dose optimization program on overall immunoglobulin (Ig) utilization and spend in a regional health plan.

Background

- Due to the lack of consensus guidelines and the use of Ig therapy in several disease states, the economic burden is significant for managed care organizations.
- As the utilization of Ig therapy expands with more FDA-approved and off-label uses, total spend continues to rise exponentially.
 - The average annual cost for Ig therapy can range from \$30,000 to \$90,000 per patient depending on dose, infusion time, length of treatment, and site of care.
 - Per member per month (PMPM) cost for all intravenous Ig products in 2014 was \$1.56 and \$2.34 for commercial and Medicare plans, respectively.
- To assist payers, Magellan Rx Management has developed and implemented an Ig utilization management and dose optimization program to curb rising costs.

Methods

- The program was executed in a regional health plan with approximately 700,000 covered lives.
- It consisted of implementing a comprehensive medical criteria with steps through alternative therapies when clinically appropriate, along with pharmacist-led interventions to recommend dose optimization based on adjusted body weight (ABW) instead of actual body weight in obese adults.
- Impact of dose optimization was assessed for the first year of program implementation, from April 1, 2014 to March 31, 2015, based on data collected from prior authorization (PA) reviews.
- Medical claims were also analyzed to compare the last quarter of the implementation period (intervention period) to the same time period prior to program implementation (baseline period) to assess the impact on general Ig utilization and cost. Associated ICD-9 codes with each medical claim were determined to be either appropriate or inappropriate after pharmacist review of either inclusion in current medical policy and/or presence of evidence-based literature to support Ig use.
 - Baseline period: 1/1/2014 to 3/31/2014
 - Intervention period: 1/1/2015 to 3/31/2015

Disclosures

- This research was conducted by Magellan Rx Management, Newport, RI, without external funding.

Results

ABW Dosing Recommendations (4/1/2014 to 3/31/2015)

Requests by Line of Business (LOB) and ABW Dosing Recommendation, Approved Requests

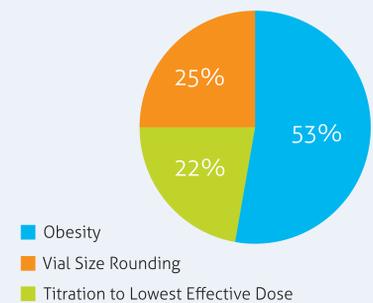
LOB	ABW Dosing Recommended?		Grand Total	% ABW Dosing Recommended
	No	Yes		
Commercial	182	48	230	20.9%
Medicaid	37	6	43	14.0%
Medicare	63	30	93	32.3%
Grand Total	282	84	366	23.0%

Results of ABW Recommendations by LOB, Approved Requests

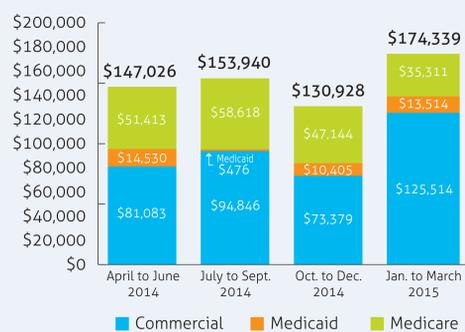
LOB	ABW Dosing Recommendations Accepted		Grand Total	% ABW Recommendations Accepted
	No	Yes		
Commercial	16	32	48	66.7%
Medicaid	1	5	6	83.3%
Medicare	12	18	30	60.0%
Grand Total	29	55	84	65.5%

Reasons for Dose Optimization

% of Unique Members



Net Savings by LOB per Quarter, Approved Requests



Immunoglobulin Utilization Comparison: Pre- and Post-Program Implementation



Paid Amount for Appropriate vs. Inappropriate Indications: Pre- and Post-Program Implementation



Discussion

- Dose optimization led to a savings of 8% or \$606,235 over a one year time frame.
- The majority of this savings can be attributed to dose adjustments in obese patients.
- Medical claims analysis demonstrated that utilization and overall costs associated with Ig was consistently reduced in the first quarter 2015 (post-implementation) compared to the first quarter 2014 (pre-implementation).
 - Total paid amount: Decreased by 17%
 - Cost per claim: Decreased by 11%
 - Number of claims: Decreased by 7%
 - Number of units: Decreased by 9%
 - Unique members: Decreased by 7%
 - Paid amount for inappropriate indications: Decreased by 77%
- Limitations of this study include:
 - Since Ig PAs can be approved for up to one year, medical claims analyzed in the intervention period are likely to be confounded by approvals prior to program implementation. Due to this, only medical claims in the final quarter of the intervention period were analyzed as they would be less likely to be confounded by PAs approved prior to 4/1/2014.
 - Estimated dose optimization savings are based only on anticipated use reflected on PA approvals rather than actual claims data.

Conclusion

- Following the initiation of the Ig utilization and dose optimization management program on 4/1/2014, a reduction in total spend, claims, units, members, average cost per claim, and inappropriate utilization was observed.
- Medical claims analysis revealed that the utilization management and dose optimization program was able to reduce total Ig spend by 17%. This correlates to an overall estimated savings of approximately \$1.4 million per year or \$0.17 PMPM.
- A large proportion of this savings can be attributed to ABW dose optimization. The remaining savings are likely attributed to a reduction in inappropriate use, as well as possible changes in prescribing behavior that occurred as a result of provider outreach and education by pharmacists.

References

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