Home Infusion Model Can Reduce Factor Consumption

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Introduction and Objective

Significant variability exists in dosing regimens for traditional factor VIII products and current payer reimbursement models in the United States incentivize stakeholders to dispense product. The model for this Home Infusion (HI) provider is focused on clinical management and patient/prescriber/payer collaboration. The objective is to prove that this model leads to an overall decrease in units dispensed to patients with prophylaxis regimens without sacrificing patient outcomes.

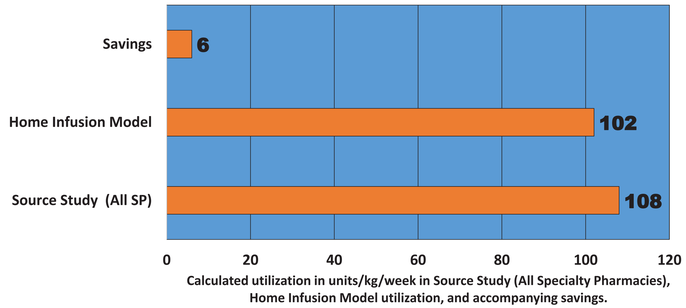
Materials and Methods

A retrospective analysis was conducted using dispensing data records from July 1 to December 31, 2015. This was compared to aggregate Specialty Pharmacy (SP) records from November 2013 through March 2014. We employed methods to replicate those presented for national data on a poster presented in October of 2014 at the Academy of Managed Care Pharmacy Nexus Meeting.[1]

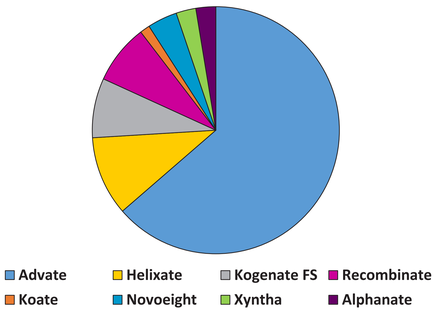
We mimicked calculations and inclusion and exclusion criteria: Patients receiving a shipment of any FVIII product for prophylactic therapy were included. Patients being treated episodically, or for immune tolerance induction were excluded. Patients with extremely abnormal weights, 40% below the 5th percentile or 40% above the 95th percentile based on weight-for-age charts from the Centers for Disease Control were excluded.

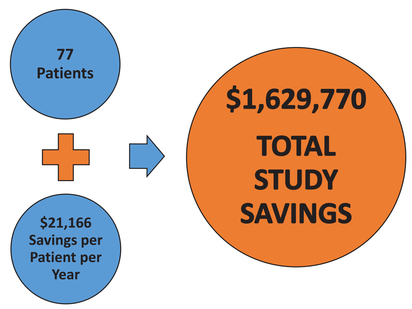
The patient's weekly dose was calculated by multiplying the prescribed infusion dose by the dose frequency and dividing the product by the patient's weight, resulting in the patient's weekly prescribed dose. Patients with an overall mean weekly dose greater than 2 standard deviations from the mean were excluded from the analysis.

Calculated Reduction in Factor VIII Units Dispensed



Number of Patients By Product





Results

Seventy-seven (77) unique patients were included in the analysis. Age ranges were similar between the two studies, with the home infusion provider having a slightly higher percentage of those under 12 years of age. HI provider had a mean units/kg/week of 102 compared to national SP's mean of 108. The Annual Bleed Rate (ABR) was not measured in the national SP data, but the ABR for our Hemophilia A patients on prophylaxis during the study period was 1.70. This is favorable when compared to published studies, i.e. "The annual bleed rate (ABR) has become an important parameter in clinical studies as a surrogate for the efficiency of prophylaxis regimens… For intensive treatment protocols, the mean total ABRs range from 2 to 5".[2]

Conclusions

A provider focused on clinical collaboration with patients, prescribers, and payers can help to control overall dosing by providing support, education, dose monitoring, and optimization activities. This can have important cost of care implications.

References

[1]Biogen Poster: B. Buckley, T. Livingston, T. Odom. S. Krishnan. Biogen Idec, Weston MA, Evaluation of Real-world and Clinical Trial-based Dosing of Factor VIII in Hemophilia A Patients. October 2014.
[2]Oldenburg, J. Optimal treatment strategies for hemophilia: achievements and limitations of current prophylactic regimens. Blood, 2015125: 2018-2044.

Disclosure

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation: Joan Couden, Kirstin Schmidt, and Kim Milenski: Nothing to disclose.

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