Uptake of Emicizumab-kxwh (Hemlibra®) in the MO HealthNet Population and Impact on Medical and Pharmacy Cost and Utilization

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Background

Patients with severe hemophilia (HEM) A need regular infusions of Factor VIII (FVIII) to avoid bleeding. About 25% develop a FVIII inhibitor that interferes with the effectiveness of FVIII, making it difficult to control bleeding without using high doses of FVIII or a bypassing agent. In November 2017, emicizumab-kxwh (EMC) was approved to prevent or reduce the frequency of bleeding episodes in patients with HEM A with FVIII inhibitors. In November 2018, the FDA expanded EMC's indication to include all patients with HEM A. This study was designed to determine uptake of EMC and its impact on medical and pharmacy cost and utilization.

Objective

To describe EMC adoption rates, user demographics and changes in cost and utilization before and after EMC initiation.

Methods

Using the MO HealthNet claims database, enrollees with a diagnosis of HEM A who started EMC between January 2018 and June 2019 birth within one month of the EMC recipient. All recipients were continuously enrolled during the analysis period, which was six months before and six months after EMC initiation. Recipient demographics and EMC adoption rates and adherence were determined. Utilization and cost per utilizer per month (PUPM) for medical services and pharmacy cost were determined from claims data and compared to the matched controls.

Results

Of 81 enrollees with HEM A, 18 (22%) started EMC during the study period with the highest number (12) in the 5 to 17 year old age group. The average age of the EMC group was 12.2 years compared to 12.7 years in the control group. Adherence to EMC therapy ranged from 33% to 100% with an overall adherence of 95%. Six months prior to EMC initiation, pharmacy cost PUPM (\$45,209 EMC and \$42,283 control), medical cost PUPM (\$2,351 and \$2,015) and medical utilization PUPM (1.46 and 1.41) were similar between the two groups. Six months after EMC initiation, pharmacy cost PUPM decreased \$8,122 (18.0%) in the EMC group, compared to \$1,000 (2.4%) in the control group, driven by decreases in HEM drug cost (\$8,179 and \$1,015, respectively). Medical cost and utilization PUPMs also decreased to a greater extent in the EMC group compared to the control group (\$1,059 [45.1%] and \$49 [2.4%]; 0.43 [29.3%] and 0.07 [5.2%], respectively).

Conclusion

In this analysis, EMC therapy was associated with a decrease in the cost of HEM medications and cost and utilization of medical services.

Figure 1: Adoption rates of Emicizumab-kxwh by Age Group

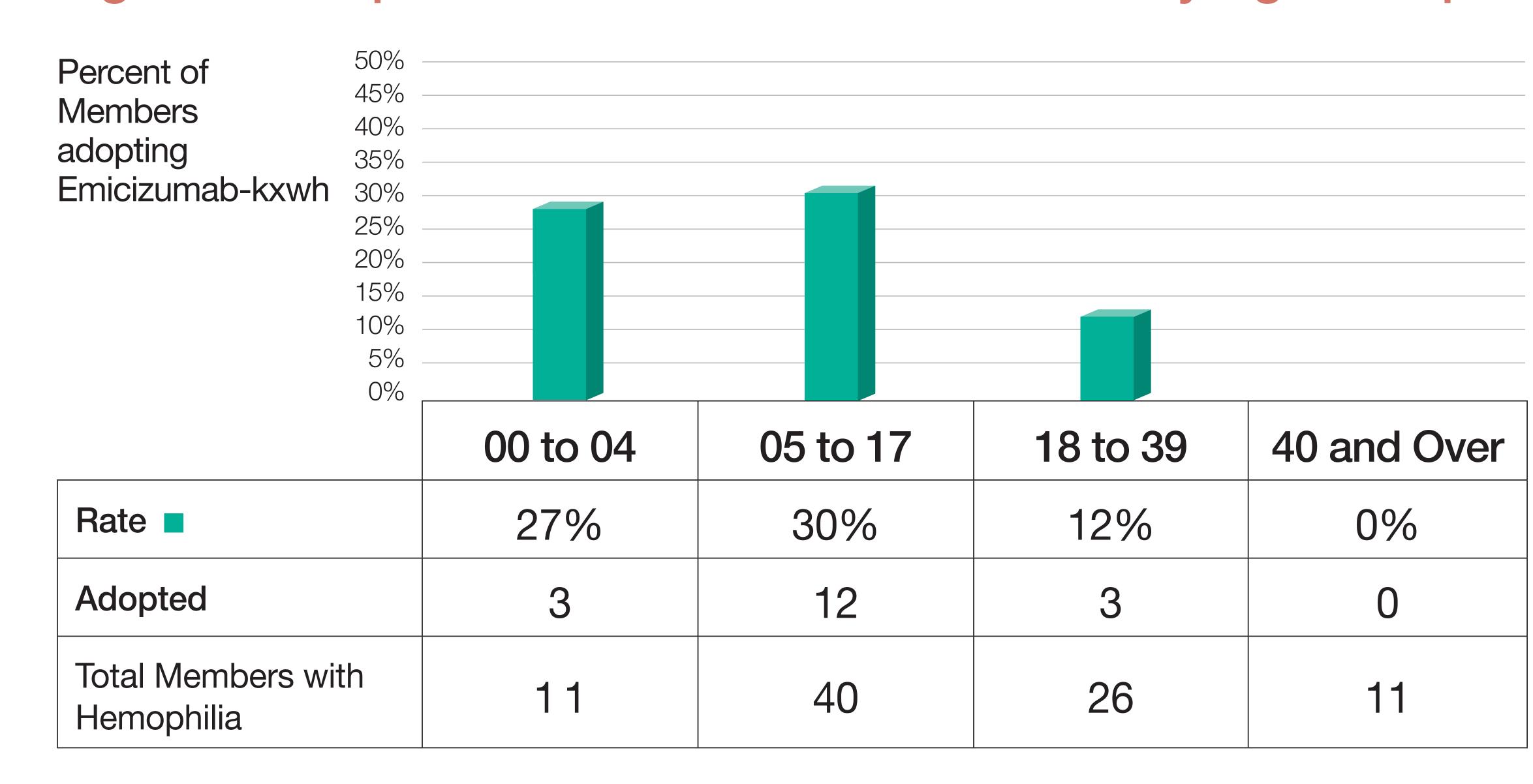


Figure 2: Hemophilia Pharmacy Costs - Per User Per Month

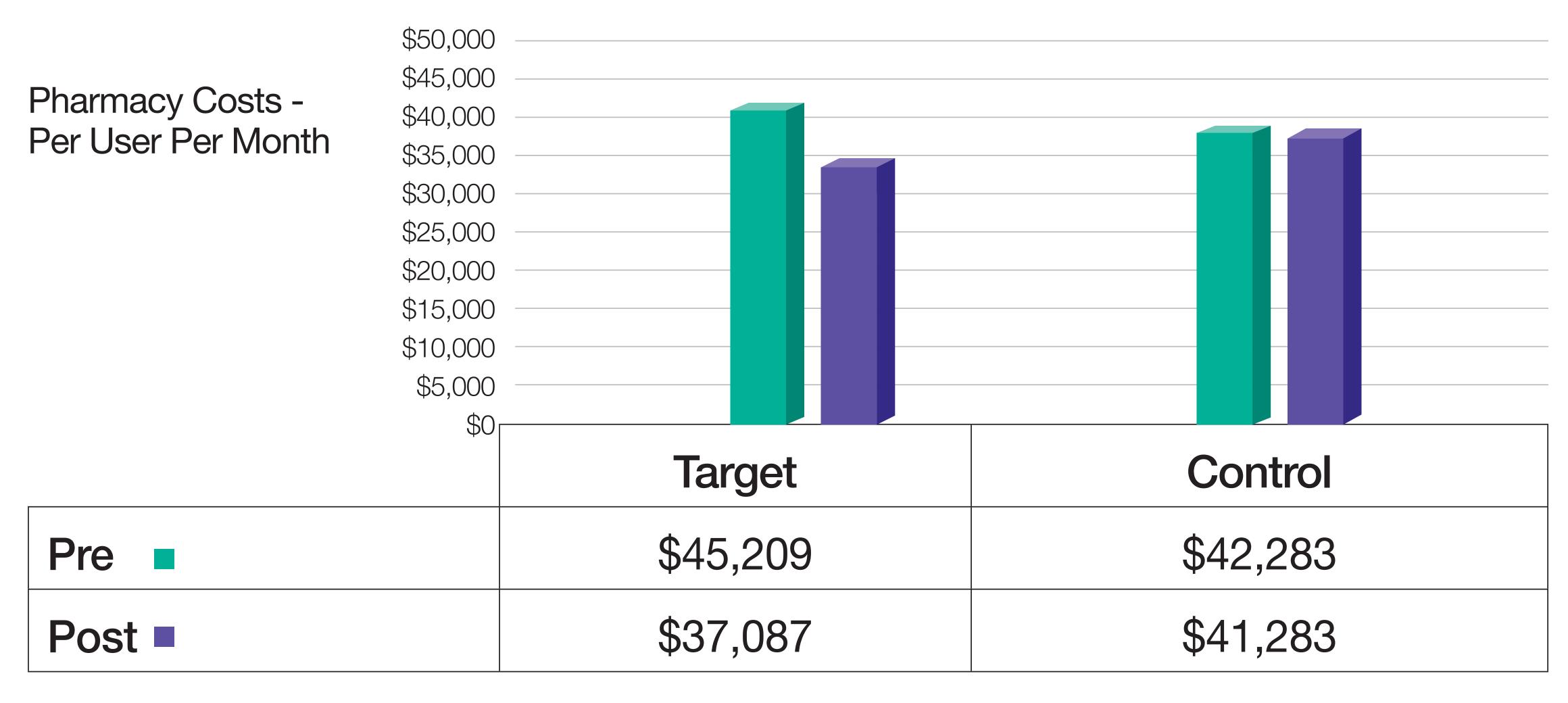


Figure 3: Medical Costs – Per User Per Month

