2012 Prevalence and Cost of Coagulation Factor Treatment for Hemophilia and von Willebrand’s Disease Among 10 Million Commercially Insured Members

Background

- Hemophilia A (Hemo A) and B (Hemo B) respectively account for 80% and 20% of all cases of inherited bleeding disorders. They are caused by deficiencies of factors VIII and IX, respectively. Factor VIII deficiency is associated with 50% to 80% of all hemophilic cases, while factor IX deficiency is associated with 10% to 20% of cases. Both conditions are X-linked recessive inherited disorders.

- The prevalence of hemophilia increases with age, with the highest prevalence in individuals aged 20 to 24 years. This is likely due to the fact that individuals with hemophilia may have a delayed diagnosis due to parental access to healthcare and the increasing prevalence of coagulation factor treatment, which can prevent bleeding episodes.

- The prevalence of von Willebrand’s disease (vWD) also increases with age, with the highest prevalence in individuals aged 15 to 19 years. This is likely due to the fact that individuals with vWD may have a delayed diagnosis due to parental access to healthcare and the increasing prevalence of coagulation factor treatment, which can prevent bleeding episodes.

Objective & Purpose

- To determine the prevalence of coagulation factor treatment for hemophilia and vWD, the distribution of annual cost for treated individuals, and variations associated with in-cost among individuals.

- The underlying purpose is to help with development of strategies through which health plans and employers can better manage their health plan members with hemophilia and vWD.

Methods

- From an estimated 2 million commercially insured members younger than 65 years insured by health plans, all those who were continuously enrolled in 2012, with complete medical and pharmacy claims data were included in the analysis.

- Members were included if they had a coagulation factor product claim in 2012.

- Members were excluded if they had any in-cost claims in 2012.

- The prevalence of coagulation factor treatment for hemophilia and vWD was estimated for the 10 million commercially insured members.

- The distribution of annual cost for treated individuals was estimated for the 10 million commercially insured members.

- Variations associated with in-cost among individuals were estimated for the 10 million commercially insured members.

- The prevalence of coagulation factor treatment for hemophilia and vWD was estimated for the 10 million commercially insured members.

- The distribution of annual cost for treated individuals was estimated for the 10 million commercially insured members.

- Variations associated with in-cost among individuals were estimated for the 10 million commercially insured members.

Results

- Of the 2,396,279 0.7% (94,535) members continuously enrolled in 2012, 712 had a diagnosis of hemophilia, 50 had a diagnosis of vWD, and 97 had a diagnosis of both hemophilia and vWD.

- The estimated upper range of cost for continuous prophylaxis with Factor VIII for an individual with hemophilia was $1,126,476, and the estimated lower range of cost was $223,185.

- The estimated upper range of cost for continuous prophylaxis with Factor IX for an individual with hemophilia was $3,141,470, and the estimated lower range of cost was $753,954.

- The estimated upper range of cost for continuous prophylaxis with Factor VIII for an individual with vWD was $1,139, and the estimated lower range of cost was $8,762.

- The estimated upper range of cost for continuous prophylaxis with Factor IX for an individual with vWD was $0, and the estimated lower range of cost was $0.

- The prevalence of coagulation factor treatment for hemophilia and vWD was significantly higher in males than in females.

- The prevalence of coagulation factor treatment for hemophilia and vWD was significantly higher in individuals younger than 15 years than in individuals older than 15 years.

- The prevalence of coagulation factor treatment for hemophilia and vWD was significantly higher in individuals with a history of bleeding or surgery than in individuals without a history of bleeding or surgery.

- The prevalence of coagulation factor treatment for hemophilia and vWD was significantly higher in individuals with a history of prophylaxis than in individuals without a history of prophylaxis.

- The prevalence of coagulation factor treatment for hemophilia and vWD was significantly higher in individuals with a history of inpatient care than in individuals without a history of inpatient care.

- The prevalence of coagulation factor treatment for hemophilia and vWD was significantly higher in individuals with a history of outpatient care than in individuals without a history of outpatient care.

- The prevalence of coagulation factor treatment for hemophilia and vWD was significantly higher in individuals with a history of medication therapy than in individuals without a history of medication therapy.

- The prevalence of coagulation factor treatment for hemophilia and vWD was significantly higher in individuals with a history of laboratory tests than in individuals without a history of laboratory tests.

Conclusions

- Among the 7 million commercially insured members continuously enrolled in 2012, 712 members (0.05%) had a diagnosis of hemophilia or vWD. Individual costs for coagulation factor treatments ranged from $1,139 to $3,141,470 per member.

- The estimated upper range of cost for continuous prophylaxis with Factor VIII for an individual with hemophilia was $1,126,476, and the estimated lower range of cost was $223,185.

- The estimated upper range of cost for continuous prophylaxis with Factor IX for an individual with hemophilia was $3,141,470, and the estimated lower range of cost was $753,954.

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References