COMPARATIVE DIRECT AND INDIRECT COSTS OF MENORRHAGIA TREATMENT WITH GLOBAL ENDOMETRIAL ABLATION OR Hysterectomy

Machaon M. Bonafede, PhD, MPH; Jeffrey D. Miller, MS; Nicole M. Meyer, MA; Gregory M. Lenhart, MS
Truven Health Analytics, Cambridge, MA

BACKGROUND

• Menorrhagia, or heavy menstrual bleeding, is a common gynecological disorder affecting about one third of women at some time in their lives.1

• Menorrhagia is the presenting symptom for the majority of women who undergo a hysterectomy.1,2

• While various complications from menorrhagia are rare, patients’ quality of life is significantly impacted by this condition.3

• Treatment for menorrhagia can be pharmacological and/or surgical. Surgical treatments include uterine artery embolization, hysterectomy, and ablative procedures. First-generation endometrial ablation methods (rollerball or laser ablation and transcervical resection of endometrium), and second-generation endometrial ablation methods (laser intrauterine thermotherapy, cryoablation, and microwave, thermal balloon, or radiofrequency ablation). Cervical ablation methods are very effective and have a low complication rate and high satisfaction rate, but there are varying rates of reintervention associated with ablation, depending on the chosen technology and circumstances under which it is used.1

• Treatment with hysterectomy is effective and permanent; however, there are high rates of morbidity and costs.4

STUDY OBJECTIVE

To describe the treatment patterns, healthcare utilization, and medical and productivity costs among commercially insured women initiating menorrhagia treatment with global endometrial ablation (GEA) or hysterectomy.

METHODS

• Women who received GEA or hysterectomy (index event) between January 1, 2006, and December 31, 2010, were identified in the Truven Health MarketScan® Commercial Database.

• Exclusion criteria

• Diagnosis of menopause prior to the index date

• Diagnosis of a primary cancer at any time during the study period

• Urinary incontinence or removal of levonorgestrel releasing intrauterine system (LNG-IUS) during the pre-index period

• Claim indicating pregnancy or delivery in the 90 days prior to the index date

• Reintervention and adjunctive pharmacotherapy

• Reintervention was defined as the patients as the receipt of a second GEA procedure or hysterectomy. Reintervention was evaluated for 5 years post-index.

• Adjunctive pharmacotherapy was defined as receipt of LNG-IUS, non-IUS hormonal therapy, or tranexamic acid in the 3 years post-index.

• Direct medical costs

• Intervention-related costs included treatment-related costs and complications, medical care utilization and costs in the 30 days following index, and subsequent OYN-related utilization of inpatient and outpatient services for the remainder of the 12-month post-index period.

• All costs were adjusted to 2011 USD.

• Complications

• Complications were defined as the presence of cervical occlusion, cervical trauma (including cervical lacerations and hematometra), uterine perforation, bowel perforation, fluid overload, pregnancy, pyometra, senile cervicitis and device complications, a second GEA or hysterectomy within 30 days; or an inpatient stay or ER visit within 2 days of the index procedure (excluding patients with an inpatient index event).

• Indirect costs

• Workplace absenteeism and short term disability (STD) claims were available for a subset of patients in the MarketScan Health and Productivity Management Database.

• Absenteeism costs assume a wage constant of $30/hour.

• STD claims assume a wage constant of $510/hour and 8 days/month with an adjustment factor of 70%.

RESULTS

Table 1. Demographic and Clinical Characteristics

Table 2. Direct Medical Costs of Intervention

Figure 1. Total Treatment-Related and Indirect Costs in the Year Following Index Event

CONCLUSIONS

• Hysterectomy was nearly twice as expensive as GEA for menorrhagia treatment in terms of direct medical costs and costs associated with workplace absenteeism and STD.

• Treatment-related complications were more common among hysterectomy patients than GEA patients, matching the results of a recent meta-analysis.4

• Last productivity representations significantly higher for hysterectomy patients than GEA patients in the year following the index event ($257,718 vs. $2,967, P < 0.001). (Figure 1)

LIMITATIONS

• Information on race, socioeconomic status, anthropometrics, and mortality is unavailable.

• As observed in other retrospective claims database analyses, the most completely recorded data are those that affect reimbursement. Hence, it is expected that the capture of expenditures is highly accurate whereas there is a potential for under-ascertainment of individual comorbidities and indicators of severity.

• Procedure coding is limited in its ability to differentiate specific types of GEA or hysterectomy for more specified analysis. There are documented differences in effectiveness across different GEA approaches.9

• Indirect costs included in this analysis are not exhaustive. For example, absenteeism and STD claims do not include caregiver time, childcare time, long-term disability, or reduced productivity while at work.

• The study population consists of patients with commercial insurance; therefore, the results may not be representative of all patients with menorrhagia, especially those uninsured or covered by Medicaid.

REFERENCES


