

Objective

Functional menorrhagia, also known as abnormal uterine bleeding (AUB), encompasses heavy, prolonged, or excessive menstrual bleeding that is bothersome to a woman and interferes with physical, emotional, social, and/or material quality of life¹.

AUB is responsible for significant economic burden, as its initial management is based on surgical strategies and frequently involves hospitalization in the case of failure or severe complications. The objective of this study was to compare 4 surgical strategies used in France for the treatment of AUB in terms of costs and failure or complication avoided.

Methods

COHORT SETTING-UP

STUDY PERIOD:
January 1st, 2009 to December 31st, 2015.

DESIGN:
Retrospective study of the PMSI-MCO (French National Hospital discharge database - Medicine, Surgery, Obstetrics) database, a comprehensive collection of all inpatient stays in France.

DATA EXTRACTION:
All hospital stays from 2009 to mid-2014 in 35-55 year-old women with 4 types of menorrhagia surgery were extracted (index stay): curettage, 1st generation (1G: loop resection ± rollerball), 2nd generation (2G: radiofrequency, thermal balloon, microwave), hysterectomy. Only incident women were included.

Patients were followed for a period of at least 18 months from their index stay and until end 2015, and rehospitalizations related to surgery failure (new surgical intervention, a medical AUB management or a pregnancy) or severe complication were tracked. The methodology used in this study has been recently published².

ECONOMIC EVALUATION

Hospital costs associated with these patients during this period were estimated from a healthcare payer’s perspective, using the French official tariffs expressed in 2017 Euro. A cost-effectiveness analysis was performed comparing each surgical procedure to 2G, in terms of cost and rate of failure or severe complication avoided. Probabilistic sensistivity analysis was performed using a bootstrap resampling (1000 samples).

Conclusion

This study shows that 1G and 2G techniques seem to be the most efficient strategies, in line with their recommended use as preferred surgical solutions in France³. Curettage is the least effective strategy with the highest rate of complications and failure. Hysterectomy has the lowest rate of failure and/or severe complications but is also the most expensive strategy.

The PMSI is a database originally designed to analyze hospital activity. The main advantage of this database is the comprehensiveness of the inpatient stays in France. In the current context, it allows medico-economic research with some limitations to be considered: events occurring outside of hospital are not reported, and severe complications only which lead to rehospitalization could be tracked; sick leaves following initial surgery or failure/complications are not gathered and are not included in the costing.

