**Introduction**

The objective of this study was to assess the current hospital burden of functional menorrhagia, or abnormal uterine bleeding (AUB), surgically treated in France between 2009 and 2015, and to evaluate the impact of each surgical technique on failure, severe complications and associated costs, by extracting data from the PMSI (French Medical Information System, Programme de Médicalisation des Systèmes d’Information).

**Method**

**INCLUSION OF PATIENTS**

All hospital stays from 2009 to 2015 with 4 types of AUB surgery identified by French Nomenclatures of Surgical Procedures (CCAM) codes associated with International Classification of Diseases, 10th Revision (ICD-10) codes in 35-55 year-old women were extracted from PMSI-MICO (Medicine, Surgery, Obstetrics: curettage, 1st generation (IG; resection n rollerball), 2nd generation (2G; radiofrequency, thermal balloon, microwave), hysterectomy. A retrospective analysis until 2006 was performed to exclude women previously treated for AUB (surgical procedure) since 2006. An algorithm was completed with the medical input of experts in order to exclude any patient identified as presenting comorbidities that would introduce bias in the results (breast or colorectal cancer, myoma, endometriosis...).

**IDENTIFICATION OF FAILURE AND SEVERE COMPLICATIONS**

Patients operated on before mid-2014 were followed at least 18 months from their surgery and up to 5 years (for patients included in 2009 and 2010).

Another algorithm and a medical review identified rehospitalizations related to surgery failure or severe complications and occurring during the follow-up period. Failure stays corresponded to a new surgical intervention (curettage, 1G, 2G, Hysterectomy), a medical AUB management or a pregnancy. Severe complications were complications linked to AUB surgery and requiring hospitalization of the patient. Some could occur within 30 days : inflammatory disorders, hemoperitoneum, systemic complications. Others located within the uro-genito-abdominal location could occur at any time after surgery: adhesions, foreign body, pain, venal hernia.

**ECONOMIC EVALUATION**

Hospital costs associated with initial stays as well as all stays that occurred during the follow-up period were estimated from a healthcare payer’s perspective, using the French official tariffs. These costs were added up to obtain a median cost per patient, expressed in 2017 Euro.

**Conclusion**

This study shows that mini-invasive 1G and 2G techniques, which are recommended as preferred solutions for the surgical treatment of AUB in patients who do not wish to become pregnant in the future, are associated with low severe complication rates and low costs, compared to curettage and hysterectomy.

All inpatient stays from all private and public hospitals in France are recorded in the PMSI. The PMSI is primarily designed for financial tracking of hospital activity and is not an epidemiological/c clinical database; this is why some limitations are to be considered. Failure and complications that would occur out of hospital and that would not lead to hospitalization shall not be tracked, as well as sick leaves. The burden of failure and severe complications following surgical treatment of AUB might therefore be underestimated.