

Medico-Economic Evaluation of Single-Use Versus Reusable Hysteroscopes in Outpatient Gynecological Consultations

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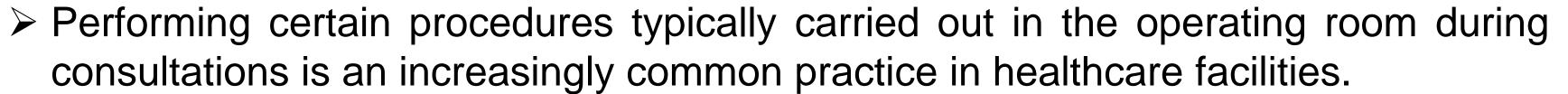
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BACKGROUND AND IMPORTANCE







> The relocation of some hysteroscopies was requested by our gynecologists to free up operating room (OR) slots and streamline the patient care pathway. Due to the lack of reusable equipment, single-use hysteroscopes (SUH) were provided as a temporary solution.



> The decision to use either single-use or rigid reusable hysteroscopes (RRH) equipment takes into account numerous factors, primarily financial but also technical, depending on existing standards and practitioner's habits.



MATERIALS AND METHODS



Retrospective economic evaluation carried out over the period June 2023 - June 2024

(The numbers are based on the hysteroscopies carried out during this period in our center and the number of RRHs required was determined by the gynaecology team).

- > Economic assessment based on :
 - ✓ Supplier quote depreciated over 5 years, which includes hysteroscopes, crocodile clips and the imaging station;

Single-use hysteroscopes

- ✓ Costs associated with the sterilisation process and the nursing time;
- Costs associated with waste.

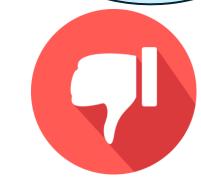


Technical comparison



Based on 66 annual hysteroscopies (36 needed crocodile clips)





Advantages:

- **Eliminates** risk of cross-contamination
- Reduces dedicated paramedical time

Drawbacks:

- Risk of supply shortages
- Increased quantity of waste
- Overly flexible tip -> limits maneuverability

Reusable hysteroscopes



Advantages:

- Reduces average costs by <u>53%</u>
 - Offers superior image quality



Drawbacks:

- Risk of cross-contamination
- Increased dedicated paramedical time and logistical management
 - Risk of breakage → cost inflation

AIM AND OBJECTIVES



✓ To compare costs associated single-use hysteroscopes (SUH) reusable hysteroscopes (RRH) outpatient consultations.



technical and organizational advantages and disavantages of each solution.



Economic comparison



RRH COSTS (Excluding taxes)

Supplier quote (for 5 hysteroscopes and including 3 crocodile clips)	29525,40 €
Quote depreciation (annual cost)	5905,08€
Sterilization process/year*	2323,20€
Sterilization containers (annual cost)	333,39€
Nursing costs/year**	554,40€
Total annual cost	10783,02€
Cost per procedure	<u>138,12€</u>

SUH COSTS (Excluding taxes)

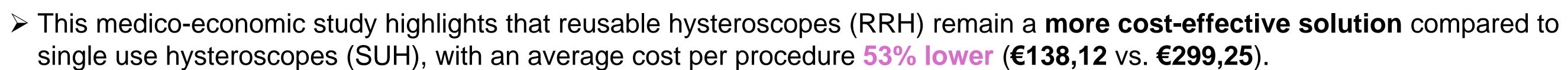
Singue-use hysteroscope (x 66)	17764,95€
Crocodile clip (x36)	1950,00€
Waste costs/year	35,29€
Total annual cost	19750,24€
Cost per procedure	<u>299,25€</u>

*Calculation based on the 'unités d'oeuvre' (UO) method of the French sterilisation society. 1 UO = 0.32€ and the sterilisation of a RRH corresponds to 110 UO. The nursing time required to manage an RRH is around 20 minutes, which corresponds to a 8.40€ cost according to nursing pay scales.

CONCLUSION AND RELEVANCE









> Investing in RRH is justified in the short term. However, the evolution of costs and performance of single-use devices warrants reevaluation in the coming years to ensure optimal decision-making that accounts for economic, ecological, and organizational criteria. For this reason, this subject will be discussed at a multi-professional consultation meeting in order to make the most appropriate choice.

<u>Limitations</u>: This study did not account for the costs associated with the reception and distribution of single-use devices within the institution. Such logistical efforts are not yet quantifiable. In addition, the risk of RRH breakage has not been taken into account either.

