

In-Office Versus Operating Room Hysteroscopic Resection of Endometrial Polyps: A Cost Analysis From a Spanish Hospital Perspective.

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Objective

Hysteroscopic resection represents the standard treatment for endometrial polyps, a common condition diagnosed in 10%-40% of women with abnormal uterine bleeding, as well as in 1%-12% of asymptomatic patients during gynecologic examinations.<sup>1</sup>

The procedure can be performed in the operating room; however, technological advancements, such as hysteroscopic morcellation, have enabled the performance of polypectomy in the office setting.

This analysis explores the economic implications associated with the introduction of in-office hysteroscopic morcellation (IO-HM) versus hysteroscopic resection with a conventional resectoscope in the operating room (OR-CR) for the treatment of endometrial polyps, from a Spanish hospital perspective.

Methods

- A cost analysis was developed based on previously published evidence on health resource use (HRU) for in-office and operating room (OR) hysteroscopic resection of endometrial polyps, endorsed by a clinical expert.<sup>2</sup>
- Unit costs, obtained from Spanish sources and expressed in €2024, were applied to estimates of HRU including the preanesthetic assessment, surgical procedure, and postoperative recovery room stay (Table 1).
- The budget impact over a 3-year time horizon, in a hypothetical cohort of 250 patients annually treated and a progressive implementation rate of IO-HM (25%, 50% and 75% the first, second and third year, respectively), and the number of OR hours released, were also estimated.

Results

- Estimated mean total cost was €681.4 for patients undergoing IO-HM and €986.8 for patients undergoing OR-CR (Figure 1).
- In comparison to OR-CR, the introduction of IO-HM would result in mean total cost savings of €305.4 per patient, attributed to similar surgical procedure costs (€681.4 IO-HM vs. €671.3 OR-CR), along with the avoidance of the preanesthetic assessment (-€209.5) and postoperative recovery room stay requirements (-€106.0)
- Over 3 years, total savings associated with the progressive implementation of IO-HM were estimated at €114,528.6 (Figure 2) and 352.5 operating room hours would be released (Figure 3).

Table 1: Health resources and unit costs considered in the analysis.

Health resource	Units	Unit cost (€ 2024)
Hysteroscopic resection in the OR		
Preanesthetic assessment		
Anesthesiology consultation	1 <sup>‡</sup>	132.7 € <sup>3</sup>
Blood test	1 <sup>‡</sup>	76.8 € <sup>3</sup>
Surgical procedure		
Gynecologist	2 <sup>2</sup>	27.1 €/h <sup>4</sup>
Anesthesiologist	1 <sup>2</sup>	27.1 €/h <sup>4</sup>
Nurse	2 <sup>2</sup>	15.7 €/h <sup>4</sup>
Nurse assistant	1 <sup>2</sup>	11.0 €/h <sup>4</sup>
Operating room	0.94 h <sup>2</sup>	508.9 €/h <sup>5</sup>
Materials (anesthesia, irrigation tubes and surgical drape)	76.8 € <sup>2</sup>	
Postoperative recovery room stay	1.5 h <sup>‡</sup>	70.7 €/h <sup>3</sup>
In-office hysteroscopic morcellation		
Surgical procedure		
In-office surgical procedure*	1	193.8 € <sup>3</sup>
Materials (hysteroscopic morcellator, irrigation tubes, analgesia and waterproof drape)	487.6 € <sup>2,6</sup>	

\*It is assumed that the cost of healthcare professionals is included in the cost of the in-office surgical procedure  
‡Expert input

Figure 2: Estimated cost savings associated with the progressive implementation of IO-HM.

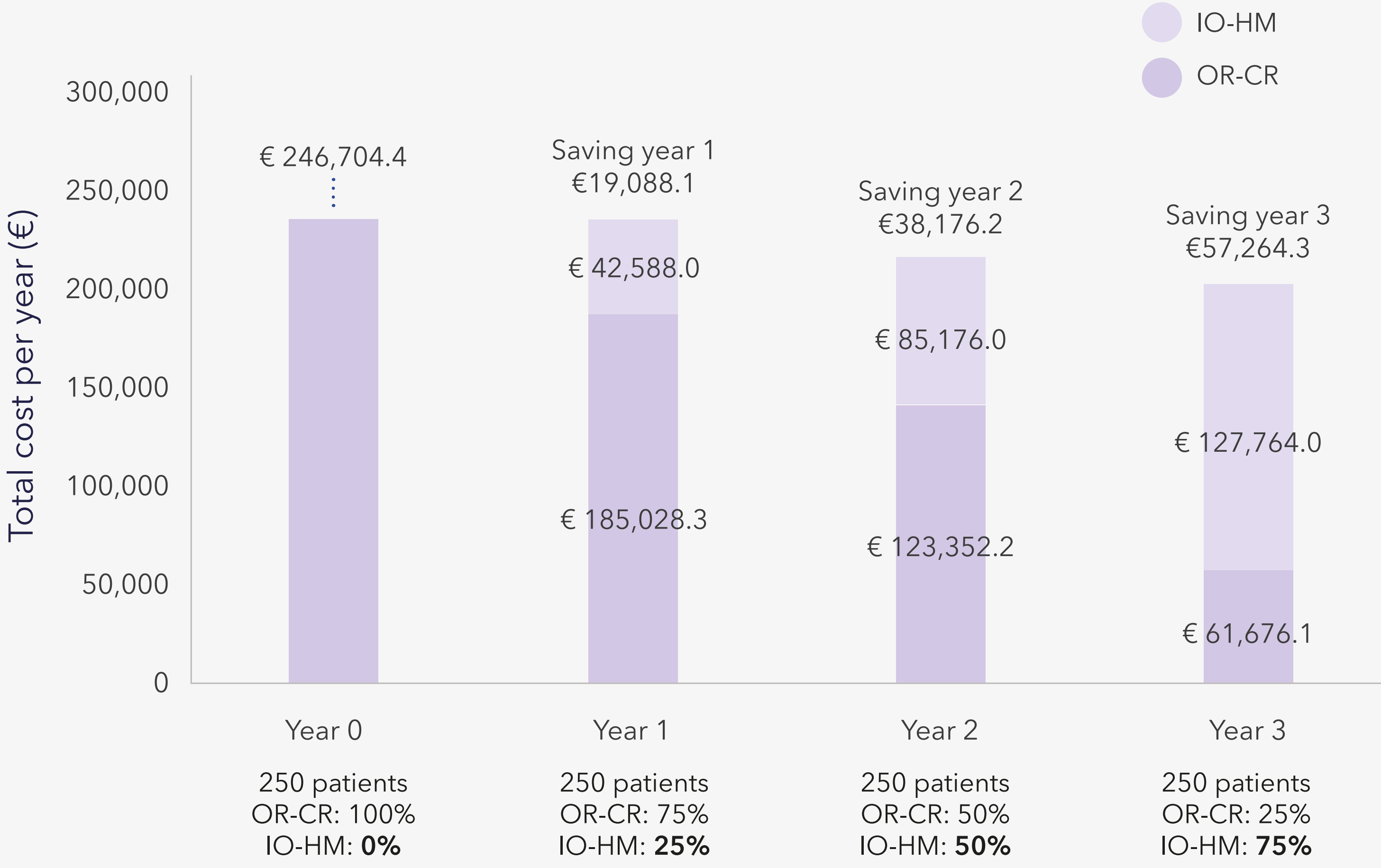


Figure 1: Estimated cost per patient undergoing OR-CR or IO-HM.

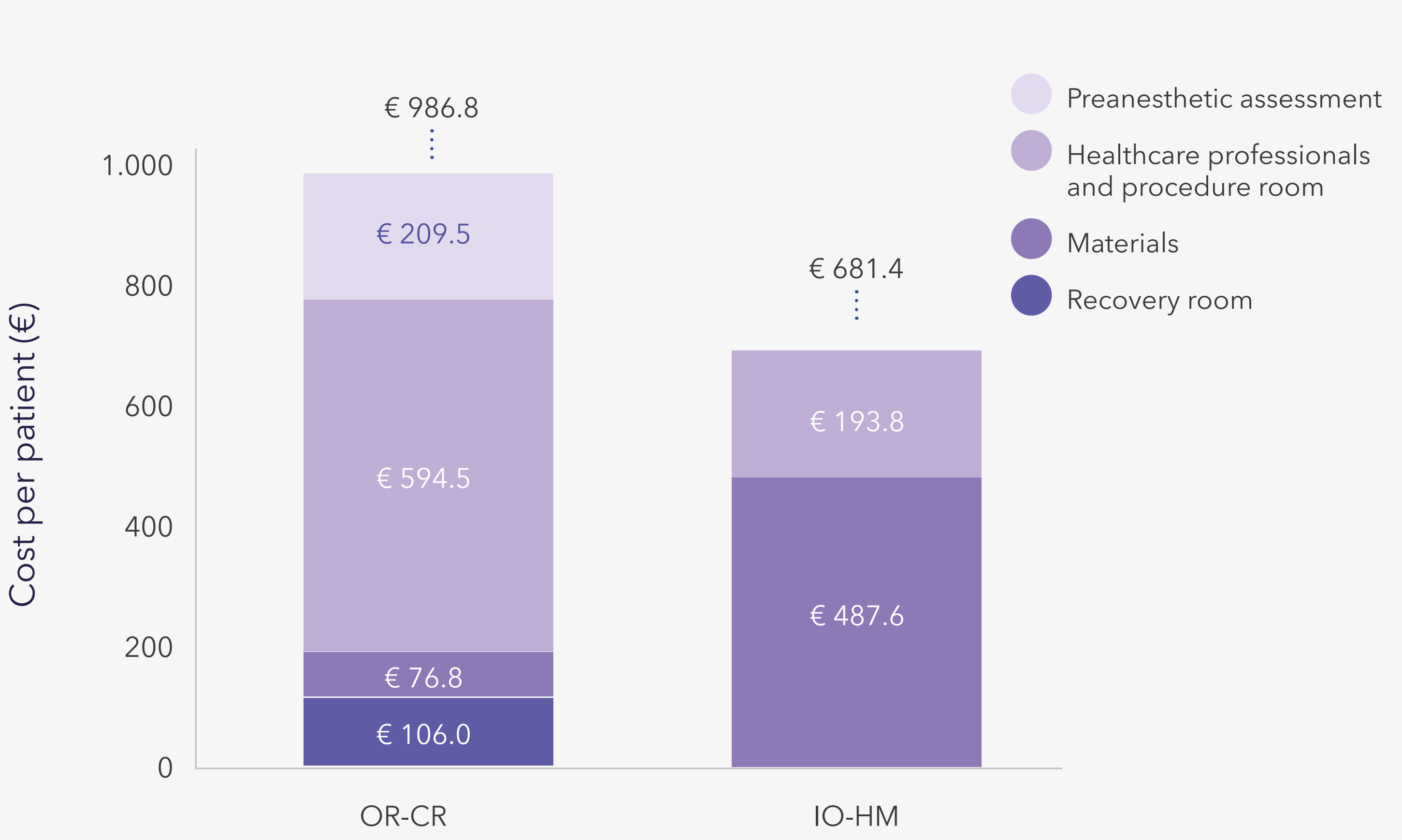
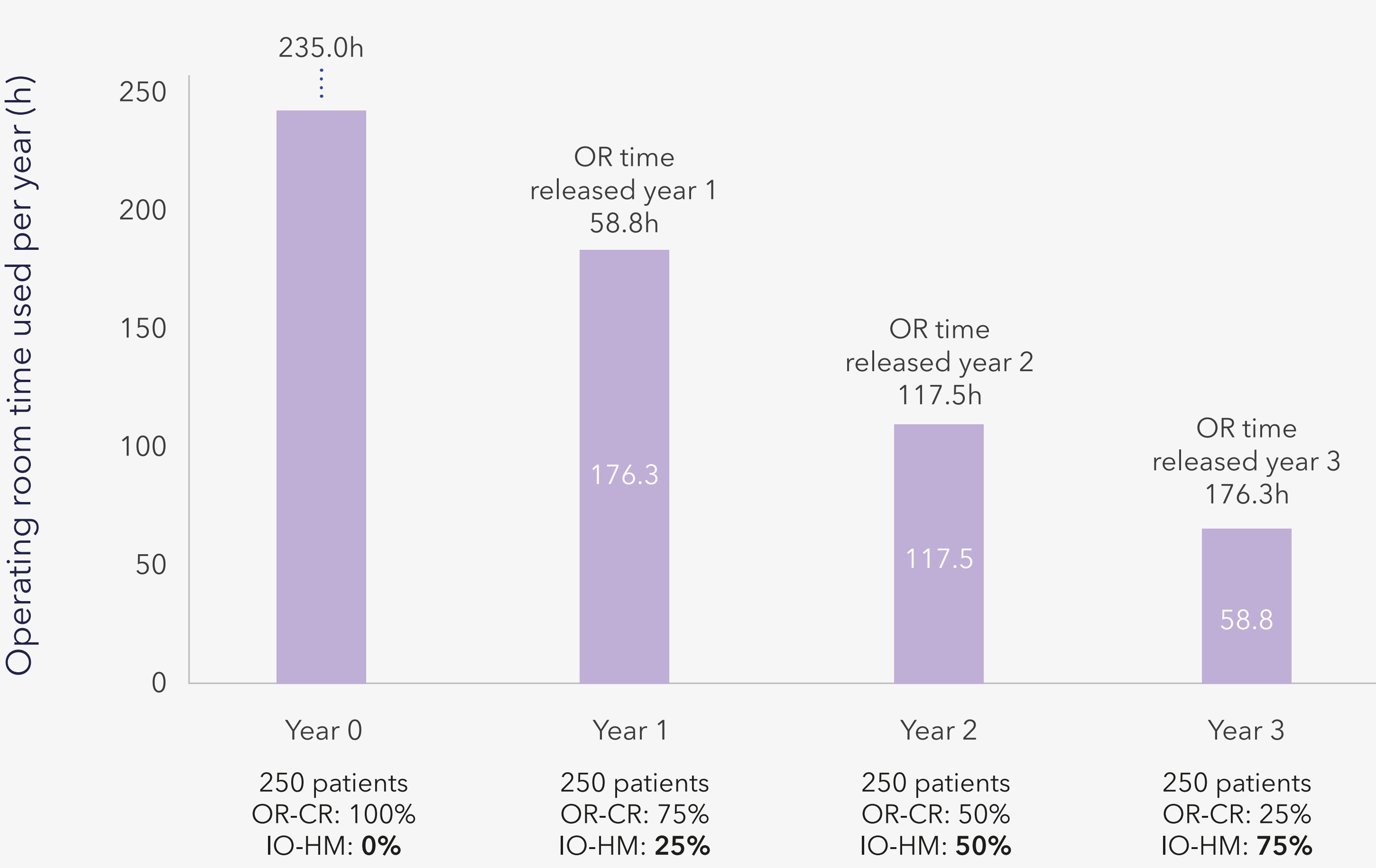


Figure3: OR time released with the progressive implementation of IO-HM.



Conclusion

Efforts to increase the implementation of IO-HM for treating endometrial polyps could yield substantial cost savings in Spain.

References

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