

# The Economic and Capacity Impact of Time Saved in the Operating Theatre Performing Holmium Laser Enucleation of the Prostate with MOSES™ Technology vs Standard Technology

Bruno L, Demaire C, Sfeir J, Woodward E.

based on ISPOR Europe Poster<sup>1</sup>, presented on November 8<sup>th</sup> 2022 in Vienna, accessible [HERE](#)

## OBJECTIVE

To estimate time savings in the operating room and the potential economic and capacity impacts, comparing standard vs. MOSES™ technology for Holmium Laser Enucleation of the Prostate (HoLEP vs. MoLEP) in key European countries.<sup>1</sup>

## BACKGROUND

A recent meta analysis demonstrated that using MOSES™ technology for HoLEP was associated with a statistically reduced operative time.<sup>1</sup> Reducing time in the operating room (OR) is an important lever for hospitals to optimize their operational efficiency, thus optimizing their costs.<sup>2</sup>

Gauhar et al.<sup>1</sup> found:

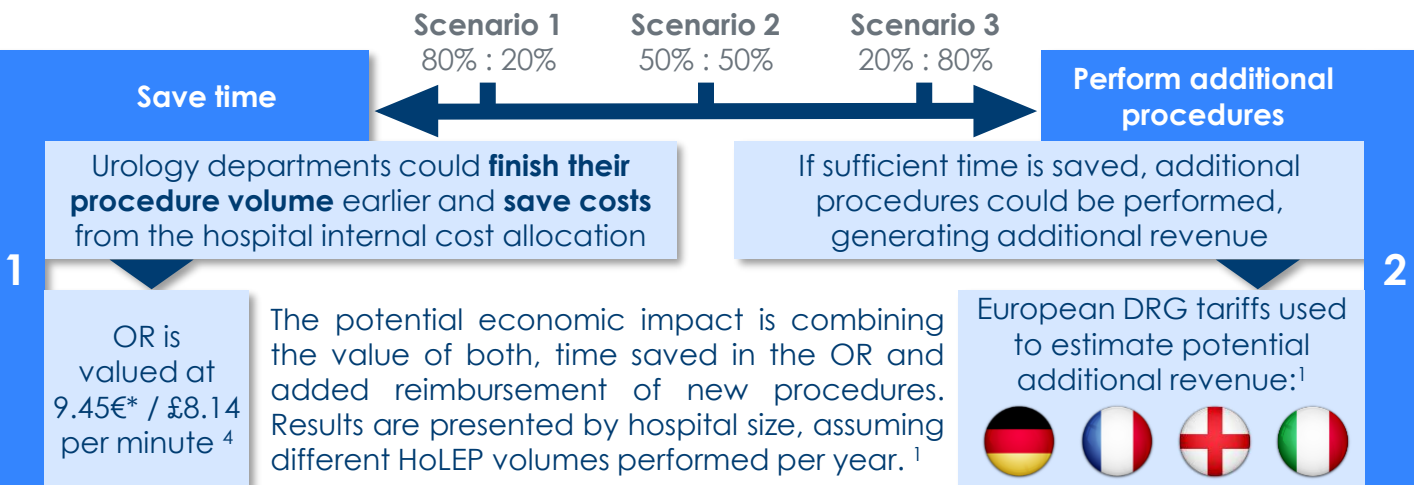
No. of patients included in the OR time analysis	Standard technology pooled operating time per HoLEP case*	MOSES™ technology pooled operating time per HoLEP case*	Time difference absolute & in percent
381	70.62 min	54.55 min	-16.07 min -22.75%

\* Calculated from the pooled Meta Analysis results<sup>2</sup>

## METHODS

An Illustrative Health Economic Model was developed to extrapolate the per-procedure time savings on to a range of potential annual procedure volumes, assuming a 100% switch to MoLEP.

The model evaluated 2 ways to utilise the time savings realizable with MoLEP vs. HoLEP:<sup>1</sup>



1. Bruno L, et al. The Economic and Capacity Impact of Time Saved in the Operating Theatre Performing Holmium Laser Enucleation of the Prostate with MOSES™ Technology vs Standard Technology. Value in Health 25:125 2022.

2. Chapman Jr WC et al.. Time is money: Can punctuality decrease operating theatre cost? J Am Coll Surg. 2020, 230(2):182-189

3. Gauhar V, et al. Does MOSES Technology enhance the efficiency and outcomes of standard holmium laser enucleation of the prostate? Results of a systematic review and meta analysis of comparative studies. Eur Urol Focus. 2022.

4. Patel S et al. Understanding the costs of surgery: A bottom-up cost analysis of both a hybrid operating room and conventional operating room. Int J Health Policy Manag 2022, 11(3), 299-307

5. BSC data on file

\* based on a Netherlands cost analysis

## KEY RESULTS

The potential economic impact of MOSES™ technology varies greatly, depending on procedure volume and local reimbursement tariffs for HoLEP procedures. Hospitals with greater volumes and tariffs are likely to benefit the most from time saved in the OR.<sup>1</sup>

**5 MoLEP procedure times are equivalent to 4 HoLEP procedure times<sup>1</sup>**



### Scenario 1

- The most conservative scenario resulted in a potential increase in procedure volume of 4-6%.<sup>5</sup>
- Annual economic impact could range from 8,292€ in an Italian hospital performing 50 HoLEPs/year<sup>1</sup> to 114,264€ in a German hospital performing 400 HoLEPs/year.<sup>5</sup>

### Scenario 2

- The moderate scenario resulted in a potential increase in procedure volume of 14-15%.<sup>1</sup>
- Annual economic impact could range from 11,559€ in an Italian hospital performing 50 HoLEPs/year<sup>1</sup> to 195,978€ in a German hospital performing 400 HoLEPs/year.<sup>5</sup>

### Scenario 3

- The most nonconservative scenario resulted in a potential increase of annual procedure volume of 22%.
- The potential economic impact ranged 13,717€ in an Italian hospital performing 50 HoLEPs/year<sup>1</sup> to 280,547€ in a German hospital performing 400 HoLEPs/year.<sup>5</sup>

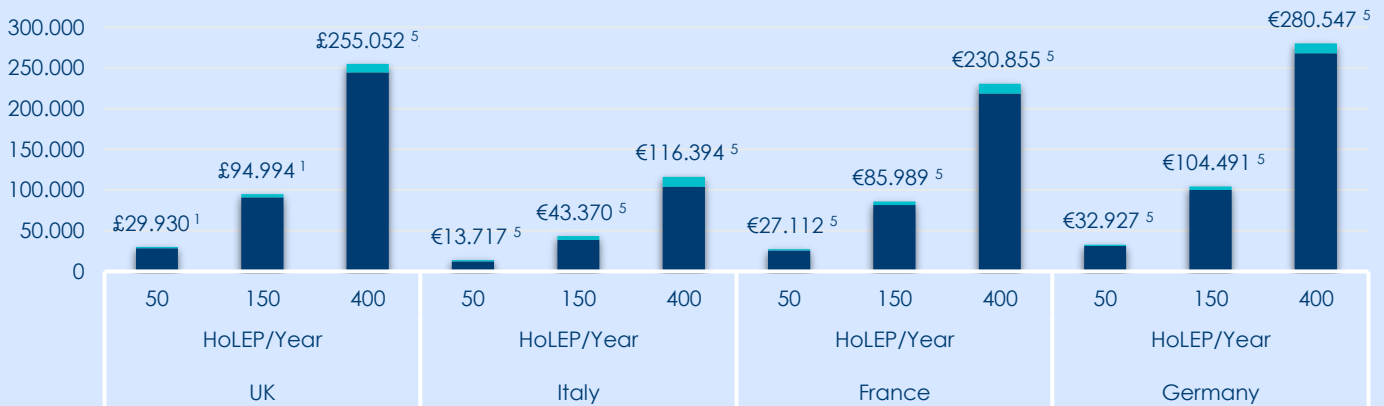


Figure 1: Scenario 3, illustration assumes 80% of time saved feeds into the performance of additional procedures and 20% of time is used to save OR costs.   
■ of time used to close the OR earlier   
■ of time used to perform additional procedures

## CONCLUSION

Using MoLEP vs. standard HoLEP may help hospitals save sufficient time in the OR to increase their procedure volume and ultimately incur additional revenue. Aspects of operative efficiency and workflow should be considered for the adoption of Medical Technologies.<sup>1</sup>



For more information on the ISPOR Europe Poster presentation on 'The Economic and Capacity Impact of Time Saved in the Operating Theatre Performing Holmium Laser Enucleation of the Prostate with Moses™ Technology vs Standard Technology', scan the QR-code or click [HERE](#) to find the published Abstract and Poster-presentation

