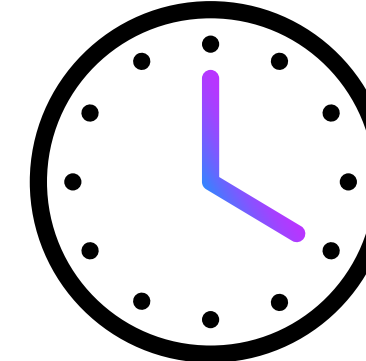




# The Economic and Capacity Impact of Time Saved in the Operating Theatre Performing Holmium Laser Enucleation of the Prostate with MOSES™ Technology vs Standard Technology

Bruno L, Demaire C, Sfeir J, Woodward E, based on ISPOR Europe Poster<sup>1</sup>, presented on November 8th 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 optimising their costs.<sup>2</sup>

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

**381**

Number of patients included in the OR time analysis

**70.62<sub>min</sub>**

Standard technology pooled operating time per HoLEP case\*

**54.55<sub>min</sub>**

MOSES™ technology pooled operating time per HoLEP case\*

**-16.07<sub>min</sub>**

**-22.75%**

Time difference absolute & in percent

\*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 onto a range of potential annual procedure volumes, assuming a 100% switch to MoLEP. The model evaluated two ways to utilise the time savings realisable with MoLEP vs HoLEP:<sup>1</sup>

**1**

**Save Time**

**Scenario 1**  
80% : 20%

**Scenario 2**  
50% : 50%

**Scenario 3**  
20% : 80%

**2**

**Perform Additional Procedures**

Urology departments could finish their procedure volume earlier and save costs from the hospital internal cost allocation

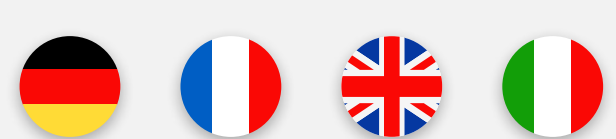
OR is valued at €9.45\* / £8.14 minute<sup>4</sup>

**The potential economic impact is combining the value of both time saved in the OR and added reimbursement of new procedures**

Results are presented by hospital size, assuming different HoLEP volumes performed per year<sup>1</sup>

If sufficient time is saved, additional procedures could be performed, generating additional revenue

European DRG tariffs to estimate potential revenue<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

## 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>**

**1**

**Save Time**

**Scenario 1**  
80% : 20%

**Scenario 2**  
50% : 50%

**Scenario 3**  
20% : 80%

**2**

**Perform Additional Procedures**

### 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 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 non-conservative 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>

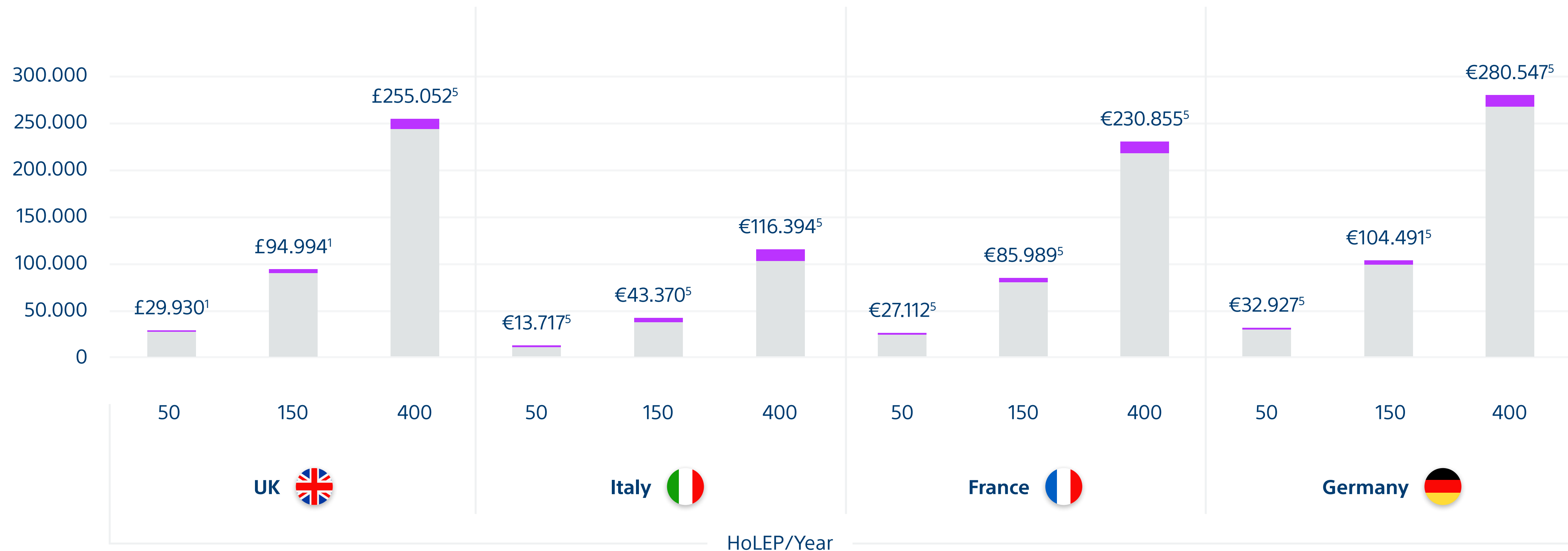


Figure 1: Scenario 3, illustration assumes 80% of time saved feeds into the performance of additional procedures and 20% of time is used to save OR costs

## 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.

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