

Title	Laser treatment of lower urinary tract symptoms associated with benign prostatic hyperplasia
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Aim

To assess and compare the efficacy, the safety and the cost of the laser techniques most widely used in France (laser photoselective vaporisation of the prostate (PVP)) and overseas (Holmium laser enucleation (HoLEP)) compared with traditional techniques (transurethral resection of the prostate (TURP) and open prostatectomy (OP)). To determine the precise indications and the conditions of use of the two laser techniques

Conclusions and results

The studies did not show that the laser techniques (PVP or HoLEP) are superior or inferior to the traditional techniques in terms of efficacy. However, it should be noted that the studies showed an improvement in symptoms with all the techniques (laser and traditional).

With regard to the duration of catheterisation and the length of hospital stay, the data showed an advantage in favour of the PVP and HoLEP techniques.

Moreover, all the studies showed that there was less bleeding with the PVP and HoLEP techniques compared with open prostatectomy. As regards the comparison with TURP, a meta-analysis showed an advantage in favour of the PVP technique. The professionals consulted noted a significant reduction in perioperative and postoperative bleeding whichever laser technique was used.

The analysis of the literature did not provide precise information on the broadening of the indications for surgical treatment of BPH with the two laser techniques.

Given the uncertainties about the conclusions that arose from the analysis of clinical studies, the economic assessment has been oriented towards a comparison of the costs of PVP with the costs of TURP in a group perspective. The resources required for the HoLEP laser technique were not assessed because of a lack of available information on its usage and results in France.

The results of the cost assessment showed that a distinction must be made between high and low levels of activity in order to best assess the difference in cost between the techniques and the uncertainty surrounding the results. Only establishments with a high annual volume of activity can recoup the initial investment costs. The benefits achieved

through the reduced length of stay with PVP can only partly offset the high costs of the laser equipment. The other key element in favour of the PVP technique is the use of the laser technique in outpatient surgery.

In summary, the literature data on one hand and the views of the consulted healthcare professionals on the other show that the studied laser techniques (PVP and HoLEP) can be regarded as possible treatment options in the same indications as the traditional techniques (TURP and OP), given the advantages shown by these two laser techniques, namely reductions in bleeding, the length of catheterisation and the length of stay in hospital.

Methods

The method of assessment used in this report is based on critical analysis of the data identified in the clinical and economic scientific literature, an assessment of the costs of the PVP technique compared with TURP in France and on the consultation of healthcare professionals.

Written by

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