Putting NICE guidance into practice

Costing statement:
UroLift for treating lower urinary tract symptoms of benign prostatic hyperplasia (MTG26)

Published: September 2015
Summary

It is unlikely that the guidance will result in a significant change in resource use in the NHS. The UroLift system is recommended as another option alongside current standard treatments, such as transurethral resection of the prostate (TURP) and holmium laser enucleation of the prostate (HoLEP).

Using the UroLift system in a day-surgery unit is estimated to save around £286 and £159 per patient compared with using monopolar and bipolar TURP in an inpatient setting.

The UroLift system may result in productivity savings for NHS trusts from shorter length of stay in hospital and reduced inpatient resource use (for example, theatre operating time and associated staffing costs and consumables) because unlike TURP it can be done as a day-case procedure. It may also help to improve productivity (time savings for healthcare professionals) in outpatient settings due to reduced post-discharge follow-ups, both in primary care settings and in an outpatient setting.

The UroLift system is commissioned by clinical commissioning groups (CCGs). Providers are NHS hospital trusts.
1 Introduction

1.1 The guidance states that:

- The clinical case for adopting the UroLift system for treating lower urinary tract symptoms of benign prostatic hyperplasia is supported by the evidence. The UroLift system relieves lower urinary tract symptoms while avoiding the risk to sexual function associated with transurethral resection of the prostate (TURP) and holmium laser enucleation of the prostate (HoLEP). Using the system reduces the length of a person’s stay in hospital. It can also be used in a day-surgery unit.

- The UroLift system should be considered as an alternative to current surgical procedures for use in a day-case setting in men with lower urinary tract symptoms of benign prostatic hyperplasia who are aged 50 years and older and who have a prostate of less than 100 ml without an obstructing middle lobe.

- The primary cost drivers in the model were the cost of each implant and the number of implants used per treatment (the modelling assumed 4). Compared with monopolar and bipolar transurethral resection of the prostate (done as an inpatient procedure, which is most common), using the UroLift system in a day-surgery unit results in cost savings of around £286 and £159 per patient. There was uncertainty over the procedure duration in the model, but this made no difference to the cost case.

2 Background

2.1 The UroLift system is used to perform a prostatic urethral lift, a procedure that relieves lower urinary tract symptoms by moving enlarged prostate tissue so it does not block the urethra. The system uses adjustable, permanent implants to pull excess prostatic tissue away so that it does not narrow or block the
urethra. In this way, the device is designed to relieve symptoms of urinary outflow obstruction without cutting or removing tissue.

2.2 The UroLift system is intended for use in the treatment of lower urinary tract symptoms secondary to benign prostatic hyperplasia where conservative management options have not been successful, or are not appropriate, and surgery, usually TURP or HoLEP, is indicated.

2.3 In the submission the company suggested that, in the future, the UroLift system might be used earlier in the care pathway as an alternative to medication. The Committee noted that this is outside the scope of the current evaluation. It considered that earlier use of the device in the care pathway might form part of a future evaluation with the development of a more mature evidence base for the UroLift.

2.4 The cost of the UroLift system (comprising 1 delivery device and 1 implant) stated in the company’s submission is £330 (excluding VAT). An average of 4 implants is used for each procedure so the typical per-patient cost is £1,320.

2.5 Initial treatment options for benign prostatic hyperplasia include conservative management and medication (5-alpha reductase inhibitors and alpha-blockers). If conservative management or drug treatment have been unsuccessful or are not appropriate and symptoms are severe, then surgical options are considered.

2.6 NICE guidance on [lower urinary tract symptoms in men](https://www.nice.org.uk/guidance/cg218) recommends using monopolar or bipolar TURP, monopolar transurethral vaporisation of the prostate or HoLEP. However, it specifies that HoLEP should only be done at a centre that specialises in the technique, or which has mentorship arrangements in place. Expert clinical opinion suggests the number of HoLEP procedures for benign prostatic hyperplasia is small.

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2.7 NICE interventional procedure guidance on insertion of prostatic urethral lift implants to treat lower urinary tract symptoms secondary to benign prostatic hyperplasia states that TURP, transurethral vaporisation of the prostate or HoLEP may be used when surgical treatment is needed.

2.8 Table 1 shows the number of people for whom the UroLift system may be appropriate. Approximately 5,400 men are eligible for the UroLift system each year, but the actual number depends on local clinical decisions and patient preferences for other surgical procedures.

Table 1 People eligible for treatment in England

<table>
<thead>
<tr>
<th>Details</th>
<th>Proportion</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td></td>
<td>53,107,169</td>
</tr>
<tr>
<td>Total number of men aged 50 years and above in England</td>
<td></td>
<td>8,617,189</td>
</tr>
<tr>
<td>Prevalence of diagnosed benign prostatic hyperplasia(^1)</td>
<td>18.00%</td>
<td>1,551,094</td>
</tr>
<tr>
<td>Number of men with benign prostatic hyperplasia eligible for invasive procedures(^1)</td>
<td>1.40%</td>
<td>21,715</td>
</tr>
<tr>
<td>Number of men with benign prostatic hyperplasia for whom UroLift is appropriate(^2)</td>
<td>25.00%</td>
<td>5,429</td>
</tr>
</tbody>
</table>

\(^1\)The prevalence of diagnosed benign prostatic hyperplasia and the number of men eligible for invasive treatments was obtained from the economic model submitted by the company for the UroLift system.

\(^2\)Based on clinical expert opinion.

3 Resource impact

3.1 It is unlikely that the guidance will result in a significant change in resource use in the NHS.

3.2 Table 2 shows the costs per person for TURP and the UroLift system derived using the bottom-up costing approach. The costs are based on the company’s submission for the UroLift system and were revised by the External Assessment Centre. The costs include the initial procedure and procedure-related adverse events.

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and costs associated with a second procedure and procedure-related adverse events for people in whom the initial procedure does not give sufficient benefit or who subsequently have a relapse.

Table 2 Detailed resource use costs associated with procedures

<table>
<thead>
<tr>
<th>Item</th>
<th>UroLift</th>
<th>TURP(^5)</th>
<th>HoLEP</th>
<th>Bi-TURP(^6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical(^2)</td>
<td>£392</td>
<td>£423</td>
<td>£457</td>
<td>£410</td>
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<tr>
<td>Nursing</td>
<td>£64</td>
<td>£113</td>
<td>£137</td>
<td>£105</td>
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<tr>
<td>Drugs(^3)</td>
<td>£35</td>
<td>£21</td>
<td>£20</td>
<td>£21</td>
</tr>
<tr>
<td>Clinical supplies and services(^4)</td>
<td>£549</td>
<td>£1,710</td>
<td>£1,314</td>
<td>£1,484</td>
</tr>
<tr>
<td>Equipment cost per procedure(^6)</td>
<td>£1,325</td>
<td>£56</td>
<td>£97</td>
<td>£56</td>
</tr>
<tr>
<td>Adverse events and capital costs</td>
<td>£40</td>
<td>£369</td>
<td>£290</td>
<td>£487</td>
</tr>
<tr>
<td>Total</td>
<td>£2,405</td>
<td>£2,691</td>
<td>£2,315</td>
<td>£2,564</td>
</tr>
</tbody>
</table>

\(^1\)Costs are based on the economic model submitted by the company for the UroLift medical technology and revised by the external assessment group.

\(^2\)Consultant staff costs.

\(^3\)Cost of anaesthetics, saline, and antibiotics.

\(^4\)Includes cost of tests pre- and post-procedure and hospital bed day costs.

\(^5\)TURP, monopolar transurethral resection of the prostate; Bi-TURP, bipolar transurethral resection of the prostate.

\(^6\)Includes the cost of the UroLift implants £1,320 and £5 for consumable equipment supplies such as electrodes.

3.3 The key driver of the costs with the UroLift system is the number of devices used (implants) per procedure. Based on the economic model submitted by the company, each procedure needs 4 devices and at a cost of £330 each, the total cost per procedure is £1,320. Costs may differ because of the various discount arrangements that may exist between different NHS trusts and suppliers of implants.
About this costing statement

This costing statement accompanies the NICE guidance on UroLift for treating lower urinary tract symptoms of benign prostatic hyperplasia and should be read in conjunction with it. See terms and conditions on the NICE website.

This statement is written in the following context

This statement represents the view of NICE, which was arrived at after careful consideration of the available data and through consulting healthcare professionals. The statement is an implementation tool and focuses on the recommendations that were considered to have a significant impact on national resource use.

Assumptions used in the statement are based on assessment of the national average. Local practice may be different from this, and the impact should be estimated locally.

Implementation of the guidance is the responsibility of local commissioners and providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this costing tool should be interpreted in a way that would be inconsistent with compliance with those duties.

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