



## Topic Exploration Report

Topic explorations are designed to provide a high-level briefing on new topics submitted for consideration by Health Technology Wales. This report was prepared by Health Technology Wales on behalf of the Bevan Commission. It summarises the existing evidence on the technology of interest to support a Bevan health technology exemplar application.

Topic:	Prostatic urethral lift (Urolift) for the treatment of urinary tract symptoms from benign prostatic hyperplasia (BPH)
Topic exploration report number:	TER021
Referrer:	Hrishi Joshi
Topic exploration undertaken by:	Health Technology Wales

### Aim of Search

Health Technology Wales researchers searched for evidence on the use of prostatic urethral lift (Urolift) for the treatment of urinary tract symptoms from benign prostatic hyperplasia (BPH).

### Summary of Findings

The evidence for Urolift in the treatment of urinary tract symptoms from BPH has been reviewed by the National Institute for Health and Care Excellence (NICE) in medical technologies guidance [MTG26]. Since this was published in September 2015, trial follow ups indicate that the evidence for Urolift use continues to be favourable.

### Key sources of evidence

- Medical technologies guidance [MTG26] (2015) UroLift for treating lower urinary tract symptoms of benign prostatic hyperplasia: <https://www.nice.org.uk/guidance/mtg26>
- Leb Dai S, Chevrot A, Doizi S, et al (2018) Do patients have to choose between ejaculation and miction? A systematic review about ejaculation preservation technics for benign prostatic obstruction surgical treatment. World J Urol. 2018 Jul 2: <https://link.springer.com/article/10.1007%2Fs00345-018-2368-6>
- Pham H and Sharma P (2018) Emerging, newly-approved treatments for lower urinary tract symptoms secondary to benign prostatic hypertrophy. Can J Urol. 25(2):9228-9237: [https://www.canjurol.com/html/free-articles/V25\\_I2\\_05\\_FREE\\_DrPham.pdf](https://www.canjurol.com/html/free-articles/V25_I2_05_FREE_DrPham.pdf)

## Areas of Uncertainty

We did not identify any significant uncertainties regarding the evidence.

## Brief literature search results

Resource	Results
<p data-bbox="136 204 472 236">Guidelines and guidance</p> <p data-bbox="136 236 472 268"><a href="#">NICE</a></p> <p data-bbox="136 292 472 480"><i>We searched for guidelines, technology appraisals, diagnostics, interventional procedures, and medical technologies guidance.</i></p>	<ul data-bbox="472 236 2141 1102" style="list-style-type: none"> <li>• Medical technologies guidance [MTG26] (2015) UroLift for treating lower urinary tract symptoms of benign prostatic hyperplasia: <a href="https://www.nice.org.uk/guidance/mtg26">https://www.nice.org.uk/guidance/mtg26</a></li> <li>• NICE pathway: Lower urinary tract symptoms in men: <a href="https://pathways.nice.org.uk/pathways/lower-urinary-tract-symptoms-in-men">https://pathways.nice.org.uk/pathways/lower-urinary-tract-symptoms-in-men</a></li> <li>• Medical technologies guidance [MTG29]: GreenLight XPS for treating benign prostatic hyperplasia: <a href="https://www.nice.org.uk/guidance/mtg29">https://www.nice.org.uk/guidance/mtg29</a></li> <li>• Medtech innovation briefing [MIB158]: Rezum for treating benign prostatic hyperplasia: <a href="https://www.nice.org.uk/advice/mib158">https://www.nice.org.uk/advice/mib158</a></li> <li>• Shared learning database: Adoption of UroLift procedure, an ambulatory pathway for patients suffering from Lower Urinary Tract Symptoms of Benign Prostatic Hyperplasia: <a href="https://www.nice.org.uk/sharedlearning/adoption-of-urolift-procedure-an-ambulatory-pathway-for-patients-suffering-from-lower-urinary-tract-symptoms-of-benign-prostatic-hyperplasia">https://www.nice.org.uk/sharedlearning/adoption-of-urolift-procedure-an-ambulatory-pathway-for-patients-suffering-from-lower-urinary-tract-symptoms-of-benign-prostatic-hyperplasia</a></li> <li>• Shared learning database: Insights from the NHS: adoption of UroLift for treating lower urinary tract symptoms of benign prostatic hyperplasia at Frimley Park Hospital: <a href="https://www.nice.org.uk/sharedlearning/insights-from-the-nhs-adoption-of-urolift-for-treating-lower-urinary-tract-symptoms-of-benign-prostatic-hyperplasia-at-frimley-park-hospital">https://www.nice.org.uk/sharedlearning/insights-from-the-nhs-adoption-of-urolift-for-treating-lower-urinary-tract-symptoms-of-benign-prostatic-hyperplasia-at-frimley-park-hospital</a></li> <li>• Shared learning database: Insights from the NHS: adoption of UroLift for treating lower urinary tract symptoms of benign prostatic hyperplasia at St Helens and Knowsley Teaching Hospital NHS Trust: <a href="https://www.nice.org.uk/sharedlearning/insights-from-the-nhs-adoption-of-urolift-for-treating-lower-urinary-tract-symptoms-of-benign-prostatic-hyperplasia-at-st-helens-and-knowsley-teaching-hospital-nhs-trust">https://www.nice.org.uk/sharedlearning/insights-from-the-nhs-adoption-of-urolift-for-treating-lower-urinary-tract-symptoms-of-benign-prostatic-hyperplasia-at-st-helens-and-knowsley-teaching-hospital-nhs-trust</a></li> <li>• Medtech innovation briefing [MIB123]: Memokath-028, 044 and 045 stents for urethral obstruction: <a href="https://www.nice.org.uk/advice/mib123">https://www.nice.org.uk/advice/mib123</a></li> <li>• Interventional procedures guidance [IPG625]: Transurethral water vapour ablation for lower urinary tract symptoms caused by benign prostatic hyperplasia: <a href="https://www.nice.org.uk/guidance/ipg625">https://www.nice.org.uk/guidance/ipg625</a></li> <li>• Interventional procedures guidance [IPG611]: Prostate artery embolisation for lower urinary tract symptoms caused by benign prostatic hyperplasia: <a href="https://www.nice.org.uk/guidance/ipg611">https://www.nice.org.uk/guidance/ipg611</a></li> <li>• Interventional procedures guidance [IPG475]: Insertion of prostatic urethral lift implants to treat lower urinary tract symptoms secondary to benign prostatic hyperplasia: <a href="https://www.nice.org.uk/guidance/ipg475">https://www.nice.org.uk/guidance/ipg475</a></li> <li>• Clinical guideline [CG97]: Lower urinary tract symptoms in men: management: <a href="https://www.nice.org.uk/guidance/cg97">https://www.nice.org.uk/guidance/cg97</a></li> <li>• Quality standard [QS45]: Lower urinary tract symptoms in men: <a href="https://www.nice.org.uk/guidance/qs45">https://www.nice.org.uk/guidance/qs45</a></li> </ul>
<p data-bbox="136 1129 472 1193"><a href="#">Healthcare Improvement Scotland</a>:</p> <p data-bbox="136 1217 472 1372"><i>We searched the HIS website for any relevant advice and hand-searched Scottish Health Technologies Group and</i></p>	<p data-bbox="472 1129 2141 1193">We did not identify any guidance on prostatic urethral lift (Urolift) for the treatment of urinary tract symptoms from benign prostatic hyperplasia.</p>

<p>Scottish Intercollegiate Guidelines Network publications.</p>	
<p><a href="#">Guidelines International Network</a></p>	<p>We did not identify any guidance on prostatic urethral lift (Urolift) for the treatment of urinary tract symptoms from benign prostatic hyperplasia.</p>
<p>Secondary literature and economic evaluations</p>	
<p><a href="#">ECRI</a></p>	<p>Custom product briefs:</p> <ul style="list-style-type: none"> <li>• Overview of Three Devices for Treating Benign Prostatic Hyperplasia</li> <li>• Spanner Prostatic Stent (SRS Medical) for Maintaining Urine Flow after Treatment for Benign Prostatic Hyperplasia</li> <li>• Rezūm System (NxThera, Inc.) for Treating Benign Prostatic Hyperplasia</li> <li>• Plasma-Oval Button (Olympus America) for Treating Benign Prostatic Hyperplasia</li> </ul> <p>Technology news:</p> <ul style="list-style-type: none"> <li>• UroLift Relieves Symptoms at Five-year Follow-up</li> </ul> <p>Emerging technology reports:</p> <ul style="list-style-type: none"> <li>• Implantable Transprostatic Tissue Retractor System (UroLift) for Treating Benign Prostate Hyperplasia</li> </ul>
<p><a href="#">Cochrane library</a></p> <p>We searched for relevant Cochrane Reviews.</p>	<p>We did not identify any Cochrane Reviews assessing the use of prostatic urethral lift (Urolift) for the treatment of urinary tract symptoms from benign prostatic hyperplasia.</p>
<p><a href="#">Medline</a></p> <p>We searched the Medline database for systematic reviews, meta-analyses, economic evaluations only.</p>	<ul style="list-style-type: none"> <li>• Magistro G, Stief CG and Woo HH. (2018) Mini-Review: What Is New in Urolift? Eur Urol Focus 4(1):36-39: <a href="https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S2405456918300142?returnurl=https:%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS2405456918300142%3Fshowall%3Dtrue&amp;referrer=https:%2F%2Fwww.ncbi.nlm.nih.gov%2Fpubmed%2F29475817">https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S2405456918300142?returnurl=https:%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS2405456918300142%3Fshowall%3Dtrue&amp;referrer=https:%2F%2Fwww.ncbi.nlm.nih.gov%2Fpubmed%2F29475817</a></li> <li>• Lebdaï S, Chevrot A, Doizi S, et al (2018) Do patients have to choose between ejaculation and miction? A systematic review about ejaculation preservation technics for benign prostatic obstruction surgical treatment. World J Urol. 2018 Jul 2: <a href="https://link.springer.com/article/10.1007%2Fs00345-018-2368-6">https://link.springer.com/article/10.1007%2Fs00345-018-2368-6</a></li> <li>• Pham H and Sharma P (2018) Emerging, newly-approved treatments for lower urinary tract symptoms secondary to benign prostatic hypertrophy. Can J Urol. 25(2):9228-9237: <a href="https://www.canjurol.com/html/free-articles/V25_I2_05_FREE_DrPham.pdf">https://www.canjurol.com/html/free-articles/V25_I2_05_FREE_DrPham.pdf</a></li> <li>• Chin P and Robertson P. (2017) Medium-term efficacy of the prostatic urethral lift. Transl Androl Urol. 6(Suppl 2): S122-S132: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5522795/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5522795/</a></li> <li>• Bardoli AD, Taylor WSJ and Mahmalji W. (2017) Can the UroLift prostatic implant device treat the symptoms of benign prostatic hypertrophy, avoid sexual dysfunction and reduce hospital TURP waiting times? A single centre, single surgeon experience and review of the literature. Aging Male 20(3): 192-197: <a href="https://www.tandfonline.com/doi/full/10.1080/13685538.2017.1336531">https://www.tandfonline.com/doi/full/10.1080/13685538.2017.1336531</a></li> </ul>

	<ul style="list-style-type: none"> <li>• Pushkaran A, Stainer V and Muir G. (2017) Urolift - minimally invasive surgical BPH management. Expert Rev Med Devices 14(3): 223-228: <a href="https://www.tandfonline.com/doi/full/10.1080/17434440.2017.1296762">https://www.tandfonline.com/doi/full/10.1080/17434440.2017.1296762</a></li> <li>• Tsui JF and Dixon CM. (2016) Urolift: a New Face of Minimally Invasive Surgical Technique for Benign Prostatic Hyperplasia? Curr Urol Rep 17(9): 63: <a href="https://link.springer.com/article/10.1007%2Fs11934-016-0619-x">https://link.springer.com/article/10.1007%2Fs11934-016-0619-x</a></li> <li>• McNicholas TA (2016): Benign prostatic hyperplasia and new treatment options - a critical appraisal of the UroLift system. Med Devices (Aukl) 9: 115-23: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4876946/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4876946/</a></li> <li>• Jones P, Rajkumar GN and Rai BP et al. (2016) Medium-term Outcomes of Urolift (Minimum 12 Months Follow-up): Evidence From a Systematic Review. 97: 20-24: <a href="https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S0090429516301510?returnurl=https:%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS0090429516301510%3Fshowall%3Dtrue&amp;referrerr=https:%2F%2Fwww.ncbi.nlm.nih.gov%2Fpubmed%2F27208817">https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S0090429516301510?returnurl=https:%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS0090429516301510%3Fshowall%3Dtrue&amp;referrerr=https:%2F%2Fwww.ncbi.nlm.nih.gov%2Fpubmed%2F27208817</a></li> <li>• Ray A, Morgan H, Wilkes A, et al. (2016). The Urolift System for the Treatment of Lower Urinary Tract Symptoms Secondary to Benign Prostatic Hyperplasia: A NICE Medical Technology Guidance. Appl Health Econ Health Policy 14(5): 515-26: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5025508/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5025508/</a></li> <li>• Marra G, Sturch P, Oderda M, et al. (2016) Systematic review of lower urinary tract symptoms/benign prostatic hyperplasia surgical treatments on men's ejaculatory function: Time for a bespoke approach? Int J Urol 23(1): 22-35: <a href="https://onlinelibrary.wiley.com/doi/epdf/10.1111/iju.12866">https://onlinelibrary.wiley.com/doi/epdf/10.1111/iju.12866</a></li> </ul>
Primary studies	
<p><a href="#">Medline</a></p> <p><i>We searched the Medline database for studies of any design.</i></p>	<ul style="list-style-type: none"> <li>• Roehrborn CG, Barkin J, Gange SN, et al (2017) Five year results of the prospective randomized controlled prostatic urethral L.I.F.T. study. Can J Urol 24(3): 8802-8813: <a href="http://www.canjurol.com/abstract.php?ArticleID=&amp;version=1.0&amp;PMID=28646935">http://www.canjurol.com/abstract.php?ArticleID=&amp;version=1.0&amp;PMID=28646935</a></li> <li>• Gratzke C, Barber N, Speakman MJ, et al (2017) Prostatic urethral lift vs transurethral resection of the prostate: 2-year results of the BPH6 prospective, multicentre, randomized study. BJU Int. 119(5): 767-775: <a href="https://onlinelibrary.wiley.com/doi/epdf/10.1111/bju.13714">https://onlinelibrary.wiley.com/doi/epdf/10.1111/bju.13714</a></li> <li>• Rukstalis D, Rashid P, Bogache WK, et al (2016) 24-month durability after crossover to the prostatic urethral lift from randomised, blinded sham. BJU Int. 118 Suppl 3: 14-22: <a href="https://onlinelibrary.wiley.com/doi/epdf/10.1111/bju.13666">https://onlinelibrary.wiley.com/doi/epdf/10.1111/bju.13666</a>.</li> </ul>
Ongoing research	
<p><a href="#">Clinicaltrials.gov</a></p>	<ul style="list-style-type: none"> <li>• NCT01876706: UroLift System TOLerability and ReCOvery When Administering Local Anesthesia (LOCAL). Estimated study completion September 2018.</li> <li>• NCT03194737: Prostatic Urethral Lift in Subject With Acute Urinary Retention Secondary to BPH. Estimated study completion February 2020.</li> </ul>

Date of search:	September 2018
Concepts used:	Urolift, prostatic urethral lift, urinary tract symptoms, benign prostatic hyperplasia, benign prostate hyperplasia (BPH)