The UroLift System – Transforming outpatient urology

The NHS Long Term Plan outlined its vision for the NHS to move to a new service model in which patients receive more options, better support, and properly aligned care at the right time in the optimal care setting.[1] Amongst its targets was to reduce outpatient appointments by up to 30% - saving 30 million patient trips to hospital. NHS operational priorities continue to reflect this, with a focus on reducing bed occupancy and outpatient follow-up activity.[2] In the face of escalating demand and continued pressure on elective care, this shift in paradigm will provide obvious benefits for patients and the system, as well as the wider goals around achieving a greener NHS.

GIRFT published a practical guide to support this shift in outpatient urology.[3] Some of the key outpatient transformation initiatives outlined in this document include:

- Undertake diagnostics prior to first appointment or at a *one-stop clinic* visit
- Utilise patient initiated follow up (PIFU) if clinically appropriate. PIFU is a system that enables a patient or their carer to initiate a follow-up appointment when they need one (e.g., due to a change in symptoms or circumstances).
- Maximise "Right procedure Right place"– moving appropriate procedures into procedure rooms as opposed to higher resource environments.

In response to a national drive to move procedures from inpatient to day case settings, and from day case to outpatient clinics, the *National Day Surgery Delivery Pack* includes a list of procedures that may be undertaken as an outpatient rather than day surgery.[4] It specifically included the UroLift System in this list, with the recommendation to develop an outpatient, rather than day surgery, pathway.

The UroLift System is recommended by NICE as a day case or outpatient alternative to Transurethral Resection of the Prostate (TURP) or Holmium Laser Enucleation of the Prostate (HoLEP).[5] It has been shown to relieve lower urinary tract symptoms from BPH, while preserving sexual function and improving quality of life.[6,7]

The UroLift System is one of four BPH technologies included in the NHS MedTech Funding Mandate Policy, which aims to support the acceleration of the adoption of selected NICE-approved cost-saving medical devices.[8]

Implementing an outpatient treatment pathway – Case study

Sandwell and West Birmingham NHS Trust
Lead: Ananda Kumar Dhanasekaran, Consultant Urologist*

Case for change
Sandwell and West Birmingham NHS Trust had already established an efficient day case pathway for the UroLift System and developed a local anaesthetic (LA) protocol. An audit of their patients demonstrated that performing a UroLift procedure under local anaesthesia without sedation is feasible and is associated with good recovery and symptom improvement.[9] With advanced techniques, they also demonstrated the LA pathway can be suitable for men with an obstructive median lobe or high bladder neck[10] and for men in acute or chronic retention.[11] As part of the strategy for developing a simplified, minimally invasive pathway for patients with obstructive Lower Urinary Tract Symptoms (LUTS), the Trust also established a One-Stop LUTS clinic, whereby patients can be assessed and counselled on different treatment options in a single visit.

Although establishing a minimally invasive treatment pathway for obstructive LUTS resulted in capacity release in theatres and inpatient beds,[12] the ongoing challenges of elective recovery post-Covid-19 pandemic continued to put pressure on waiting times for benign elective surgery. Having a proven LA protocol, the trust decided to move the UroLift service to an outpatient setting.

Aims
Their goal was to create a minimally invasive outpatient pathway whereby patients with obstructive LUTS can be treated effectively and safely while minimising the number of hospital visits and time spent in hospital

Implementation
A suitable area for performing UroLift was identified in the Birmingham Treatment Centre. At the time, the area was being utilised for a diverse range of outpatient services. With support from multiple stakeholders, a proposal was put forward to dedicate the area solely to urology related services – thereby creating the *Urology Day Unit*. The unit now offers a regular One-Stop (male) LUTS clinic and a range of urology outpatient procedures, including the UroLift System, lithotripsy, and percutaneous tibial nerve stimulation.

As well as locating a suitable area, staffing requirements were addressed. Three people were required for the UroLift procedure:

- One staff member to manage the patient flow in and out of the treatment room.
- Two staff members in treatment room.
  - One person fully deployed in talking to the patient ('vocal local'), and to manage irrigation.
  - A second staff member maintains the sterility of the equipment and opens the UroLift implant packs.

Equipment needs were addressed, which comprised:

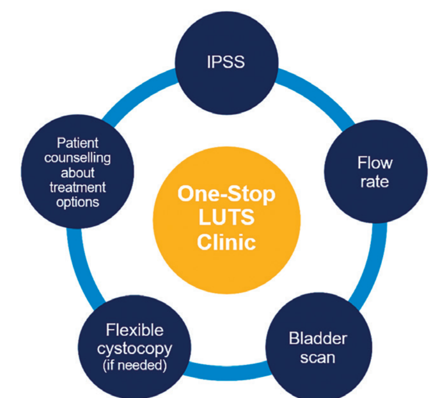
1. Trolley with lithotomy leg stirrups
2. Stack system, which can be used for the UroLift System and other procedures

As the team were already confident with performing the UroLift procedure under LA, there was no need to plan for the presence of an anaesthetist or any sedative equipment.

Local stakeholders involved in the transition included key people from the Operations team, Procurement and Finance. The participation and buy-in of clinical colleagues was also important.

In a typical half day outpatient list, 5 to 6 UroLift procedures are carried out. The LA protocol centres around the use of hypothermic lignocaine gel. Rarely, short-acting alfentanil (maximum 1mg, IV) may be needed. Post-operative catheterisation is rarely required. Patients recover in a comfortable chair and are mobilised for discharge by a trained member of the day surgery nursing team. They are discharged after they void at least once comfortably. Contact details of the LUTS specialist nurse are provided to the patient for any urgent needs. Patients are followed up by telephone at 3 months, where improvement in International Prostate Symptom Score (IPSS) and Quality of Life scores are noted. The patient will be discharged back to GP if comfortable to do so.

At the One-Stop LUTS clinic, men with LUTS are fully assessed and counselled on the different treatment options. Assessment includes IPSS, comorbidity assessment, physical examination (including digital rectal examination), flow rate and bladder scan. Occasionally, a disposable single-use flexible cystoscope is used to obtain a more detailed assessment of the prostate anatomy.



One-stop clinic

Benefits of utilising the UroLift System in an outpatient setting

- Good patient experience[13]
- Reduced resource use and staff requirements
- Capacity release of theatre space for more complex procedures
- Helps to clear the elective waiting list for surgical treatment of LUTS.

Key learnings

- Identify and involve key stakeholders. Clearly communicate the case for change and the expected benefits. Encourage ownership of the pathway transformation process
- Make use of existing protocols and good practice guidelines from BADS and GIRFT[3,4]
- Facilitate the transfer of knowledge from the theatre team to the urology nursing team involved in the outpatient pathway
- Procurement of extra capital equipment (e.g., stack and trolley) may need a business case, which will require clear communication of the benefits of the new pathway
- Leverage the local Urology Area Networks to support the case for change and the pathway transformation
- Ensure the UroLift procedure is coded correctly and appropriately recorded for the purposes of payment and clinical audit

Local Anaesthetic protocol:

- Cold (4°C), lidocaine gel 2%, 10 ml, instilled into the urethra, via syringe
- Clamp penis or patient holds glans for 10 minutes prior to the procedure
- Patient is placed into lithotomy position, and draped
- Cold (4°C) lidocaine gel 2%, 10 ml, instilled into the urethra, via syringe
- Scope and UroLift System devices inserted while talking to patient
- Additional anaesthesia if required: Alfentanil (max 1 mg, IV)

Implementing an outpatient treatment pathway – Case study

Bolton NHS Foundation Trust
Lead: Neil Harvey, Consultant Urologist*

Case for change

Many challenges continue to exist for male patients with LUTS. Multiple hospital visits are often needed before a patient is listed for a surgical intervention. Once on a waiting list for treatment, pressures on theatre space means that cancer and other urgent cases are often prioritised, causing lengthy waits for BPH patients, who may be left enduring a poor quality of life due to their LUTS.

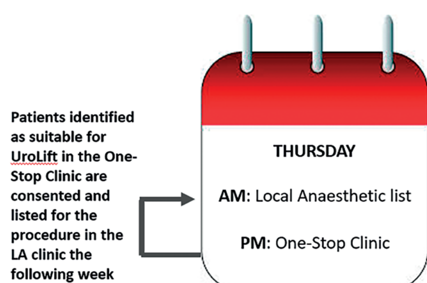
The Trust sought to develop an alternative pathway for men with LUTS, which would be both efficient and move patients out of theatre into an ambulatory setting. This would also align with the GIRFT recommendations – specifically relating to the UroLift System – to maximise opportunities to move procedures away from theatres and develop an outpatient pathway.

Aims

- Improve pathway efficiency for male LUTS patients, aiming for shortest possible *Referral to Treatment* (RTT) patient pathway and minimising the number of clinic visits
- Free up theatre capacity by maximising surgical treatment of LUTS in a LA outpatient setting

Implementation

- Two new clinics sessions were created:
  - o One-Stop Male LUTS clinic running on Thursday afternoons (see flowchart)
  - o Local Anaesthetic (LA) outpatient procedure list running on Thursday mornings. The list operates in a procedure room that is typically used for other LA procedures, such as flexible cystoscopy and TP prostate biopsy

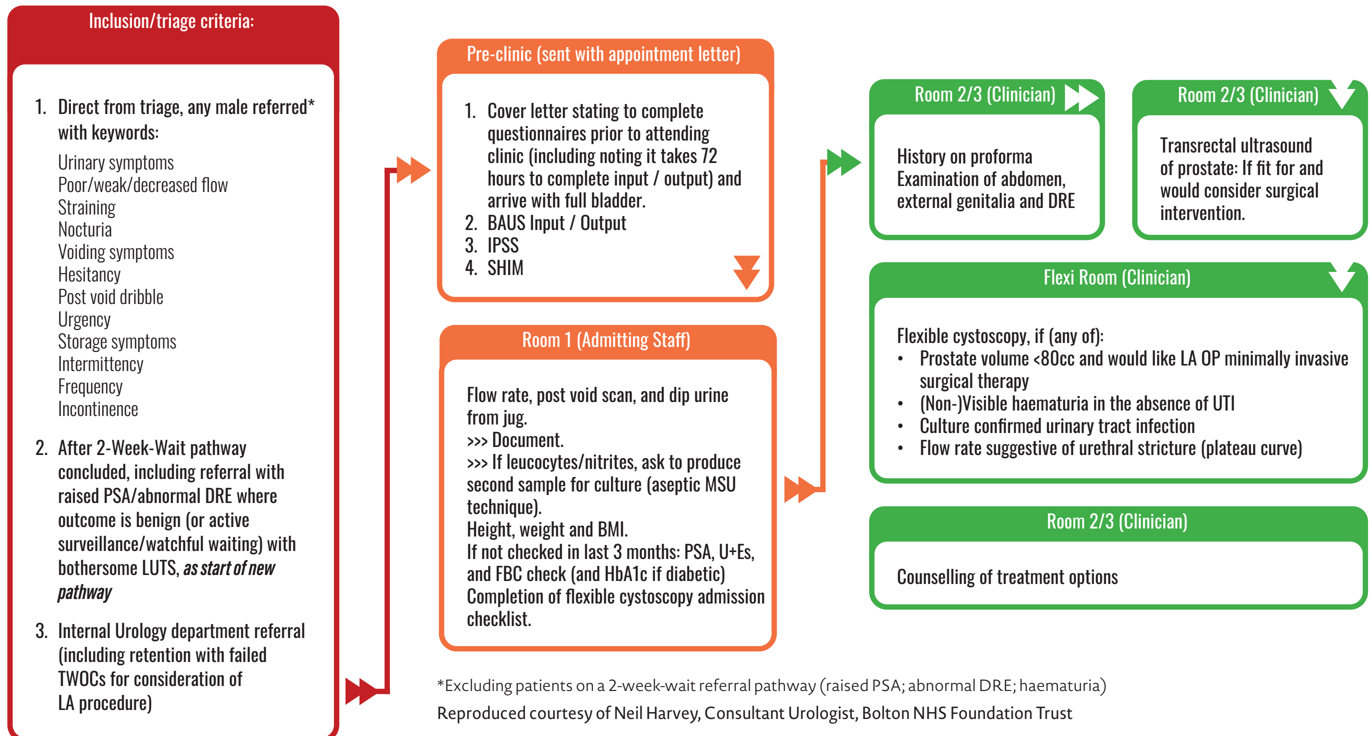


Procedure room being used to carry out UroLift System lists at Bolton Hospital.

- Key departmental stakeholders were engaged in the mapping of outpatient clinic staffing to determine where there was flexibility to move staff time and clinic room capacity to accommodate two new sessions, whilst minimising any potential loss of services. A *"win-win"* scenario was identified, whereby all parties benefited, with minimal impact on existing pathways. This improved job satisfaction and educational opportunities for all team members; for example, an advanced nurse practitioner developing new skills and expanding remit of practice.
- The pathway change meant sacrificing seven flexible cystoscopy slots per week. However, the loss was justified by the expectation that, over time (anticipated 3-6 months), there would be fewer flexible cystoscopies because these would be carried out at the point of first contact in the One-Stop Clinic.
- Clear referral criteria (in line with NICE clinical guidelines[14]) were developed and communicated with GPs and local secondary care referrers.
- A regional GP education session was organised to inform them about the new One-Stop Clinic and surgical treatment options. GPs were encouraged to trial conservative and pharmacotherapy options first and only refer to the LUTS clinic when referral criteria were met. GPs were also encouraged to use IPSS scores (to assess for those with severe scores warranting the offer of immediate surgical management) and ask patients to complete a urinary frequency volume chart (to facilitate the management of overactive bladder syndrome and nocturnal polyuria in the community).
- The new pathway will be audited against Key Performance Indicators (KPIs):
  - Referral to treatment time
  - Patient outcomes – flow rate and PVR, and the IPSS and Sexual Health Inventory for Men (SHIM) questionnaires
    - o Improvement at three months follow up (from baseline) will be compared to published outcomes
- Bed days saved (estimate by comparison to average stay of TURP)

Benefits

- Reduction in hospital visits
- Quicker access to BPH surgical treatment
- Reducing long waits for effective surgical treatment may reduce pressure on A&E departments due to less patients ending up in retention or with UTIs while they are on the surgical waiting list
- Better selection of patients for the correct procedure – *Right procedure Right place*



*Excluding patients on a 2-week-wait referral pathway (raised PSA; abnormal DRE; haematuria)

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- One-Stop Clinic provides opportunity to educate patients on their LUTS and treatment options in a single clinic visit
- Offer patients a surgical treatment within 2-4 weeks, helping the Trust meet RTT targets and significantly improving patient journey
- With appropriate use of PIFU, follow-up outpatient activity (following the One-Stop Clinic, excluding those listed for procedural intervention) is expected to be as little as 10-20% of current levels

Key learnings

- Learn from peers and NHS trusts where a One-Stop LUTS clinic and LA pathway are already established
- Whole team approach – identify opportunities for all staff to benefit from the change and where clinics and staff can be moved around to accommodate the new pathway without impacting current activity
- GP education important to ensure correct referrals
- Performing outpatient LA procedures in the morning means that patients have time to recover and pass urine before being discharged in the afternoon
- Utilise PIFU to minimise the need for patients to return for a follow-up
- Audit outcomes against pre-defined KPIs
- Be patient. Pathway transformation takes time and perseverance

Indicated for the treatment of symptoms of an enlarged prostate up to 100cc in men 50 years or older. As with any medical procedure, individual results may vary. Most common side effects are temporary and include haematuria, dysuria, micturition urgency, pelvic pain, and urge incontinence.[1] Rare side effects, including bleeding and infection, may lead to a serious outcome and may require intervention. Consult the Instructions for Use (IFU) for more information. (1. Roehrborn C G. *J Urol* 2013)

References

1. NHS Long Term Plan. January 2019. https://www.longtermplan.nhs.uk/
2. NHS England. 2023/24 priorities and operational planning guidance. December 2022. https://www.england.nhs.uk/publication/2023-24-priorities-and-operational-planning-guidance/
3. GIRFT. Clinically-led Urology Outpatient Guidance. Practical OPD guidance for urology services to maximise efficiency and reduce waiting times for patients. Nov 2022. https://gettingitrightfirsttime.co.uk/wp-content/uploads/2022/08/Clinicallyled SpecialtyOutpatientGuideDec22FINAL.pdf
4. GIRFT, CPOC, and BADS (2020). Report: National Day Surgery Delivery Pack.
5. NICE. UroLift for treating lower urinary tract symptoms of benign prostatic hyperplasia. Medical Technologies Guidance. MTG 58. May 2021 https://www.nice.org.uk/guidance/mtg58
6. Roehrborn C. et al. *Can J Urol* 2017;24(3):8802–8813.
7. Gravas, S. et al. (2021). EAU Guidelines on Management of Non-Neurogenic Male Lower Urinary Tract Symptoms (LUTS) 2021.
8. MTFM. NHS England. MedTech Funding Mandate. https://www.england.nhs.uk/aac/what-we-do/how-can-the-aac-help-me/the-medtech-funding-mandate/
9. Dhanasekaran AK. Protocol and outcomes for ambulatory prostatic urethral lift under local anaesthesia without sedation. Presented at Société Internationale d'Urologie congress 2021. Abstract UP-23-03.
10. Dhanasekaran AK. Prostatic Urethral Lift - Influence of advanced techniques on benign prostatic enlargement patient treatment pathway. Presented at World Congress of Endourology 2021. Abstract MP03-12. *J Endourol* 2021;35:S1
11. Dhanasekaran AK. Outcomes with prostatic urethral lift in urinary retention patients. Presented at Société Internationale d'Urologie congress 2021. Abstract UP-04-19.
12. Dhanasekaran AK. *Urology News* 2021;25(4). May/June Supplement
13. Treating Benign Prostatic Obstruction (BPO) with UroLift in an outpatient setting. NICE Shared Learning Case Study. NHS Fife, Victoria Hospital. June 2020. https://www.nice.org.uk/sharedlearning/treating-benign-prostatic-obstruction-bpo-with-urolift-in-an-outpatient-setting
14. NICE CG97. Lower urinary tract symptoms in men: management. Clinical guideline. CG97. Last updated https://www.nice.org.uk/guidance/cg97

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