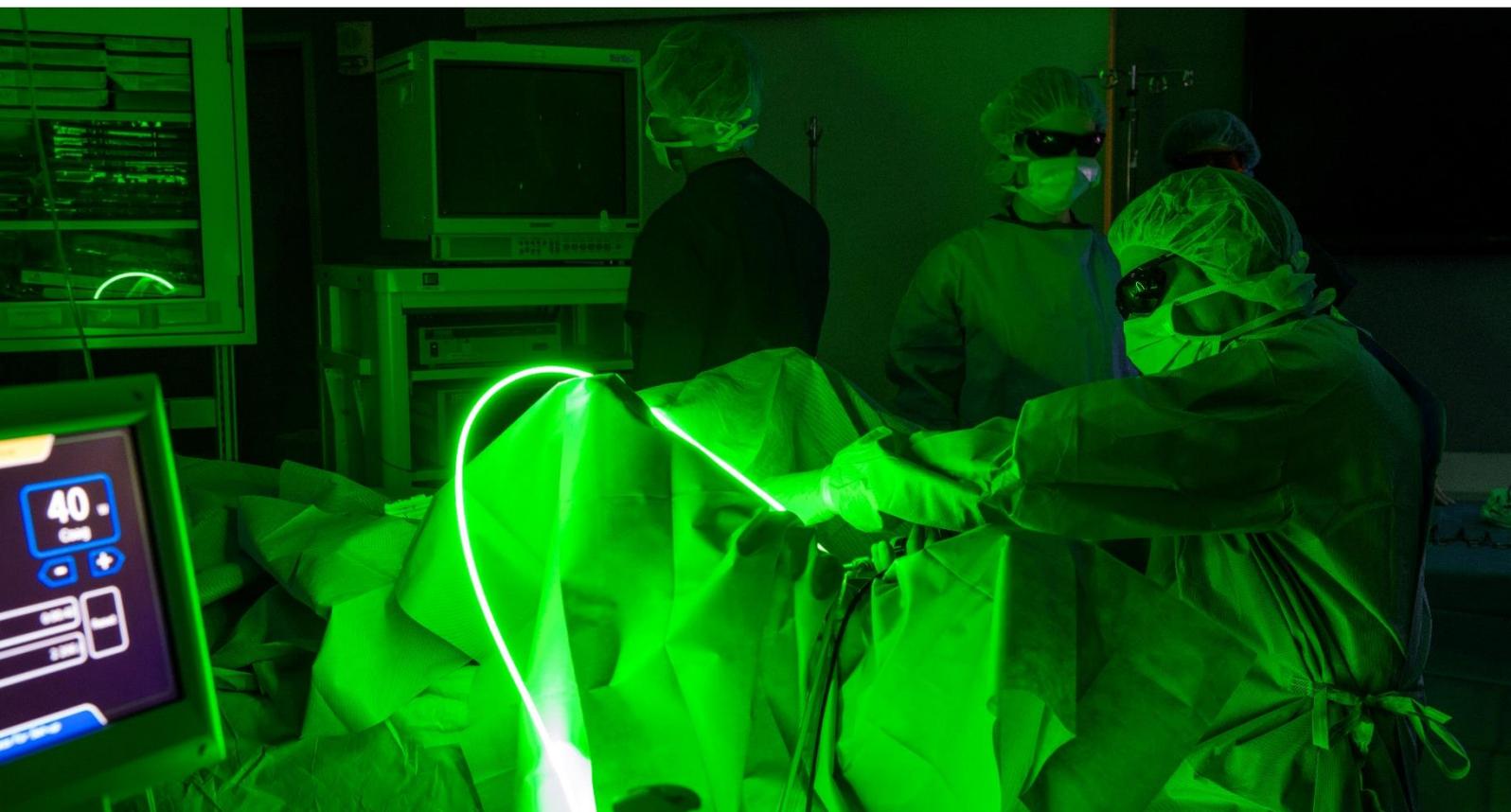


Urology: towards better care for patients with bladder outlet obstruction

A practical guide to improving the management of bladder outlet obstruction

January 2022



Executive summary

Who should read this guide?

This work has been conducted with those involved in urology service improvement in mind. Clinicians, operations managers and commissioners should all find useful insights within the document to shed light on how bladder outlet obstruction services can be improved to the benefit of patients and the NHS.

What is the guide's aim?

The guide describes the key features of a contemporary and comprehensive bladder outlet obstruction service and acts as a guide for teams who are committed to high-quality care. It will aid the identification of potential 'gaps' in their current service and offer practical advice that will then help the multi-disciplinary team to bridge them.

What the guide contains:

Case for change

1. [Introduction](#)
2. [Benefits of improving care for patients diagnosed with bladder outlet obstruction](#)

Good practice bladder outlet obstruction pathway

3. [The bladder outlet obstruction pathway](#)
4. Key components of high-quality bladder outlet obstruction care:
 - a. [Managing patients in a timely manner to improve patient experience and outcomes](#)
 - b. [Providing a one-stop service for patient assessment to improve quality and increase efficiency](#)
 - c. [Providing high-quality information to patients](#)
 - d. [Offering a comprehensive range of treatment options within a urology area network](#)
 - e. [Maximising the use of day surgery and improved recovery pathways](#)
 - f. [Optimising arrangements for follow up and audit](#)
 - g. [Developing a workforce with specific knowledge and skills for managing bladder outflow obstruction](#)

Resources to support service improvement

5. [Good practice case studies](#)
6. [Additional information](#)
7. [Delivery checklist](#)
8. [Suggestions for areas of research that would help inform future quality improvement work on bladder outlet obstruction care](#)

Appendix

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- [Glossary](#)
- [Contributors](#)

Foreword

The 2018 [GIRFT national specialty report on urology](#) demonstrated a wide variation in practice across the NHS and highlighted the need for improvement in urological practice in a range of areas. The GIRFT Best Practice Academy aims to identify good practice and provide guidance on service improvement, particularly focussing on common conditions and frequent interventions, thereby maximising impact.

The starting point in the quality-improvement process is the recognition that some aspects of care are suboptimal. While this is apparent to some of those who are delivering services, the GIRFT methodology of data analysis and clinically-led conversations with front-line staff, which culminated in the publication of the National Specialty Report, definitively demonstrated that we can do better. The next step is to understand where we should be heading. NICE guidance provides the clearest and best-researched evidence that can be used to guide practice. However, inevitably, there are gaps in such guidelines when it comes to defining how first-class clinical services should function. These are filled by expert professional opinion, typically provided to urology by the British Association of Urological Surgeons (BAUS), the British Association of Urological Nurses (BAUN) and the British Association of Day Case Surgery (BADs).

The GIRFT Academy developed this guide on the management of bladder outflow obstruction to support the implementation of good practice. This comes at a time when the management of this common condition is both improving and getting more complex. Patients can now be offered a range of treatment options as effective and safe alternatives to monopolar transurethral resection of the prostate (TURP). There is the added benefit that some of these technologies can be delivered as day cases and, in select cases, as outpatient procedures. All men requiring prostate surgery to treat bladder outflow obstruction should be counselled about their options for treatment, using a patient-centric approach to decision making.

We hope this document will facilitate progress that delivers improved outcomes and experiences for patients with bladder outlet obstruction.

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About GIRFT and the GIRFT Academy

Getting It Right First Time (GIRFT) is an NHS programme designed to improve the quality of care within the NHS by reducing unwarranted variation. By tackling variation in the way services are delivered across the NHS, and by sharing best practice between trusts, GIRFT identifies changes that will help improve care and patient outcomes, as well as delivering efficiencies such as the reduction of unnecessary procedures and cost savings.

The GIRFT Academy has been established to provide easily accessible materials to support best practice delivery across specialties and adoption of innovations in care.

Importantly, GIRFT Academy is led by frontline clinicians who are expert in the areas they are working on. This means advice is developed by teams with a deep understanding of their discipline, generated by the management of services on a daily basis.

The GIRFT programme is one element of the government's response to the recommendations of Lord Carter's report on operational productivity and performance in NHS acute trusts in England, published in 2016. The Carter Report highlighted the GIRFT programme within its theme on quality and efficiency, outlining the orthopaedic GIRFT pilots which identified the scale of benefit to tackling unwarranted variation.

For more information on the GIRFT programme, visit our website at:

www.gettingitrightfirsttime.co.uk

GIRFT Academy has also published urology delivery guides on outpatient transformation, acute stones and bladder cancer. These are available at:
www.gettingitrightfirsttime.co.uk/urology

1. Introduction

The development of lower urinary tract symptoms (LUTS) associated with benign prostatic hyperplasia (BPH) is a common condition often resulting in a significant adverse impact on quality of life. With advancing age, the prostate enlarges in size, which is often termed benign prostatic enlargement (BPE) thereby obstructing the bladder outlet. Over one third of men in the UK are living with moderate or severe urinary symptoms, which for the majority is due to bladder outflow obstruction (BOO). This equates to 3.4 million men in the UK, and is likely to represent a growing health burden due to an ageing population.

Men presenting with urinary symptoms due to BOO typically have experienced symptoms for many years before seeking help. Following assessment, lifestyle changes and medications are usually first line recommendations. However, a substantial number of men will require surgical treatment, either because of the severity of their condition or because of a failure of conservative treatment to control symptoms. A suite of minimally invasive surgical treatments (MISTs) has built up over recent years, replacing the traditional mainstay of the TURP. This increased range of treatments has meant that there is now a requirement for specialist assessment to include more complex counselling of patients about their options.

By supporting networked urology teams to focus on the opportunities for improvement in their BOO service, we hope to reduce variation in practice and improve patient experience and outcomes. The changing NHS landscape and an increased focus on collaboration means that even the best performing centres should aspire to further improvements.

The timing of this document is particularly relevant given the potential for most of the innovative treatment options to be delivered as day case surgery, or even outpatient treatment. This provides a focus on efficiency and effectiveness that should ensure that patients have access to the right treatment, at the right time and in the right setting, while freeing up NHS resources.

The rapidly changing clinical landscape of BOO management provides interested clinicians with an opportunity to explore this field as a sub-specialty, networking with similarly interested colleagues across the country. This move to sub-specialisation will expedite efforts to drive service improvement.

Further information and context on lower urinary tract symptoms and bladder outlet obstruction are [linked to from section 6 of this guide.](#)

2. Benefits of improving care for bladder outlet obstruction patients

As evidenced through the previous GIRFT review of urology services, the case for delivering service improvement across the BOO pathway is strong. The benefits to patients, clinicians and the wider NHS are clear.

A BOO service must be built around the requirements of the individual patient. The treatment portfolio has expanded in such a way as to make it possible to tailor treatment to the specific needs of the patient. This patient-centred approach should drive improvements in patient experience and outcomes, measurable using a wide range of metrics, including hospital stays, readmission rates and retreatment rates.

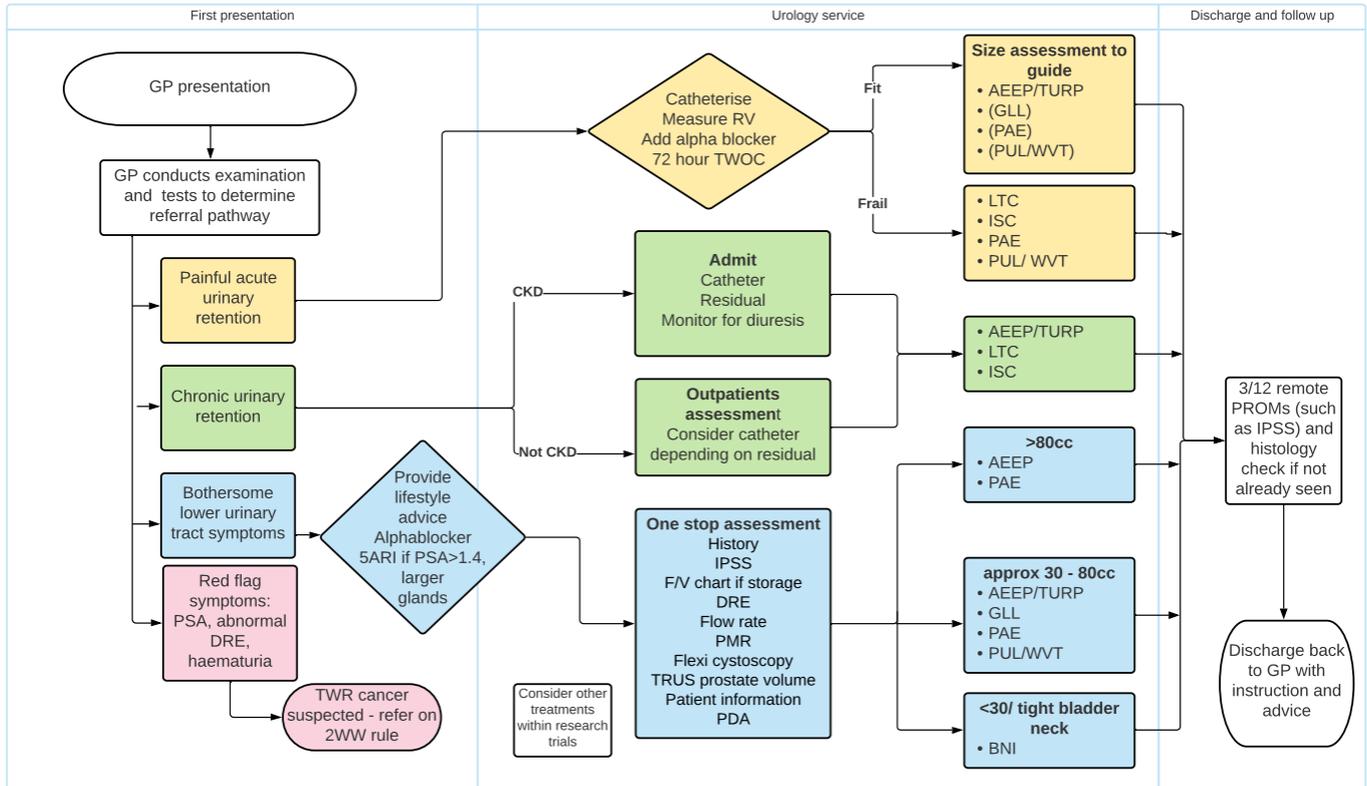
Seeking to deliver appropriate treatments through day surgery, and potentially via outpatients, will often be more convenient and a preferred option for patients. Furthermore, the ability to treat suitable patients as day cases, will reduce pressure on inpatient beds and reduce disruption from cancelled operations. Day case surgery also delivers significant benefits to overall urology services, freeing up operating theatre capacity and optimising waiting list management.

Taking a best practice approach to BOO management has the potential to unlock cost savings for the NHS in other ways. Improved patient outcomes ensure fewer patients experience incontinence and/or sexual dysfunction, both of which have a knock-on effect in terms of reducing spend on medicines. A collaborative, network-wide approach to implementing service improvements facilitates the rationalisation and best use of NHS resources across a wider geography. This approach will also enable centres to focus on what they are good at and will provide opportunities for sub-specialisation within the urology team.

3. The bladder outlet obstruction pathway

Summary of the pathway

This pathway covers the various modes of presentation for men with problematic urinary symptoms with an aim not to overcomplicate. The subsequent paragraphs provide a more detailed explanation of the pathway. The [glossary](#) at the end of this guide explains the meaning of the various acronyms.



Glossary of pathway terms:

2WW	two-week wait urgent cancer referral	PDA	patient decision aid
5ARI	5-alpha-reductase inhibitors	PMR	post micturition residual
AEEP	anatomical endoscopic enucleation of the prostate	PROMS	patient reported outcome measures
BNI	bladder neck incision	PSA	prostate-specific antigen
DRE	digital rectal examination	PUL	prostate urethral lift
F/V	urinary frequency / volume chart	RV	residual volume
GLL	green light laser	TRUS	trans-rectal ultrasound
IPSS	patient satisfaction scores	TURP	transurethral resection of the prostate
ISC	intermittent self-catheterisation	TWOC	trial without catheter
LTC	long-term use of urinary catheter	TWR	two-week referral
PAE	prostate artery embolisation	WVT	water vapour therapy

First presentation and initial assessment

The majority of BOO patients present to their GPs with lower urinary tract symptoms (LUTS), such as a reduced urinary stream, urinary urgency or urinary incontinence. Initial assessment and treatment with medication takes place in primary care. Those who fail to respond adequately to first-line treatment will be referred for specialist care.

For men presenting with acute painful retention of urine, it is important to assess the residual urine volume after catheter drainage and to understand the possible triggers for the episode. The majority of patients

are treated with an alpha blocker, followed by a trial without catheter (TWOC). Onward referral for assessment by a urologist is recommended:

- if the trial fails or, after a successful TWOC,
- if there are concerns regarding the potential for further retention episodes or ongoing troublesome symptoms. For some patients, the initial TWOC will need to be organised through secondary care services.

People with chronic retention of urine are likely to need hospital assessment because some patients will have associated hydronephrosis and renal impairment.

Urology service

Patients are referred to urology services either as elective outpatients or as emergency cases.

In the outpatient setting, a LUTS one-stop clinic is an ideal forum for assessment and treatment-planning. The dedicated LUTS clinic streamlines clinical assessment, appropriate investigations, patient information and treatment planning. At this visit, patients should be adequately supported using a variety of materials to explore and access the range of treatment options available within the urology area network (UAN). It may be necessary to refer the patient to another hospital or trust for the most appropriate treatment. Key factors for decision-making include the mode of presentation, patient concerns and expectations, comorbidities and the volume of the prostate gland.

For patients presenting with painful acute urinary retention, the immediate need is for bladder drainage in order to relieve pain. Most patients will be suitable for conservative treatment with medication and a planned trial without catheter, carried out either as an outpatient or in the community. However, surgical treatment will be needed for those that fail to re-establish satisfactory micturition and for those in whom a TWOC was contraindicated. Such patients will need to be informed about their treatment options and will choose, with the help of decision-aids, which treatment approach best meets their needs. Treatment may involve a surgical procedure, or conservative, catheter-based management.

Chronic retention patients are at risk of progressive kidney damage. Identifying those who have renal impairment, or are at risk of developing such damage, is a priority. With kidney function safeguarded, chronic retention patients will go forward for either continuing catheter management, with intermittent catheterisation (CISC) or an indwelling catheter, or surgical treatment of their BOO.

If on-going catheterisation is needed for a patient with BOO who is awaiting definitive surgical treatment, CISC should be considered (in appropriately selected cases) as an interim measure, because of the reduced morbidity when compared with a long term in-dwelling catheter. Catheterised patients (or those performing CISC) should be prioritised for surgery and services should be streamlined in an effort to reduce the morbidity associated with prolonged catheterisation. It is expected that functioning urology area networks will organise services in such a way so as to offer prompt treatment to men with catheters or severe symptoms, avoiding waiting times of over 3 months, in line with the [GIRFT sentinel metric](#).

Discharge and follow up

It is important that there are appropriate and efficient pathways in place once treatment of BOO has been undertaken, be it conservative or surgical. Again, this will need to be appropriate to the needs of the individual patient. Good quality patient education and clarity about follow up arrangements will reduce patient anxiety and the numbers of unplanned contacts with NHS services.

Innovation in follow up care should allow a range of options to be available, including face-to-face and virtual consultations. This is an area where patient initiated follow up arrangements may also work well.

4. Delivering improvements in bladder outlet obstruction management

This section of the guide provides detailed consideration of the key areas for quality improvement in bladder outlet obstruction management. Explanatory remarks (aimed particularly at the non-urologist) can be found under each heading, including guidance on what good care might look like. The guidance links to good practice case studies, which can be found in Section 5 of the document, and the additional resources in Section 6.



4A Managing patients in a timely manner to improve patient experience and outcomes

Key quality actions:

- Ensure that men with severe lower urinary tract symptoms are prioritised in patient pathways
- Ensure that urinary retention pathways do not allow inappropriate delays in care to develop
- Ensure that patients with indwelling catheters, or severe lower urinary tract symptoms, are afforded a high priority on surgical waiting lists

There is a large range in symptom severity in men who are referred to secondary care for LUTS management. Within this group, are some with severe symptoms, such as those with urinary incontinence or frequent urinary tract infections. In contrast, many men with LUTS have symptoms that are causing little inconvenience. In an era of relatively long waits for care, it is important that those with severe LUTS are afforded priority in accessing diagnostic and assessment services.

Data captured within the GIRFT programme, and the clinically-led discussions during GIRFT trust visits, have shown that men who present with urinary retention, and go on to need surgical treatment of their BOO, often fail to undergo surgery within a reasonable time interval. It is important that pathways for urinary retention do not build in inappropriate delays. This is a key [GIRFT sentinel metric](#). A key factor is ensuring that the patient has an assessment by a senior decision-maker at an early stage in the pathway, so that inappropriate TWOCs are not attempted, and those who require surgery are placed on the waiting list as soon as the need for surgery is clear.

For catheterised men awaiting surgery for the relief of acute urinary retention, there is strong evidence supporting early surgery. Within six weeks, a patient with an indwelling catheter will have their urinary tract colonised with bacteria. There is an incidence of catheter-associated urinary tract infection in these men of around 8-10%. The major side-effects reported in a UK study of such men, who were awaiting surgery, were urinary leak (46%), mild haematuria (44%), urgency (42%), pain around the penis (42%), painful erection (31%) and catheter blockage (26%).

In addition to these patient-reported outcomes, there are catheter-associated acute presentations to emergency departments and hospital admissions. The burden of attendances and admissions with catheter-associated UTI, blockages, pain and other symptoms is well-documented.

It is unacceptable for catheterised patients to remain on non-prioritised surgical waiting lists. In the first instance, patients with indwelling catheters should expect to have undergone surgery within 3 months by:

- Actively managing waiting lists, with clear lines of responsibility
- Validating waiting lists with appropriate clinical input and risk-assessment mechanisms
- Supporting patients to make informed decisions with regard to on-going care

Read our [case study on timely patient management](#)

4B Providing a one-stop service for patient assessment to improve quality and increase efficiency

Key quality actions:

- **Ensure that protocols are available for primary care colleagues, so that seamless care is provided for men with lower urinary tract symptoms**
- **Establish one-stop clinic services for men with lower urinary tract symptoms**

All symptomatic patients with suspected BOO should be initially assessed and managed in primary care. If symptoms become refractory to treatment, or if side effects are not tolerated, a referral to secondary care is needed. To ensure optimal co-ordination between primary and secondary care, protocols should be in place that set out what care should be provided in primary care, (e.g lifestyle advice and primary medical management), and the triggers for referral to specialist care.

Many innovations have contributed improvements in the care provided to men with LUTS. These include improved methods of assessment, an increase in options for conservative treatment and the development of a number of different operative procedures. Suitability for the different surgical operations depends on factors such as prostate anatomy and size, catheter-dependence, and level of concern about maintaining sexual function. This complexity means that dedicated clinics, run by urologists with a particular interest in BOO management, are needed to ensure that an informed patient is able to navigate a shared decision-making process.

An efficient one-stop service is dependent on excellent communication with patients. Prior to attending, patients need to understand how the clinic works, and complete pre-appointment questionnaires and charts. They need to know what the on-the-day assessment process will involve, and the nature of investigations that might be carried out. Finally, they should have a basic understanding of the causes of LUTS and the treatment options that might be discussed.

The clinic should be configured so that only a small minority of patients fail to complete the assessment process and leave without a clear management plan. Supporting materials should be used to ensure that the patient understands all available options. Future best practice is likely to involve the use of validated patient decision aids. Local knowledge of the available technologies within the UAN is needed in order to inform the decision-making process. Where the chosen treatment is not offered at the local hospital, the patient will need to be entered on the waiting list of the unit where that operation is performed. All of the relevant information about their case should be available in the receiving hospital, so that there is no need to repeat the assessment process.

Read our [case studies on one-stop urology clinics](#)

4C Providing high-quality information to patients

Key quality actions:

- Review the portfolio of patient information that is offered to men with bladder outflow obstruction
- Ensure that patient decision-aids are available to facilitate discussions about treatment options

Accurate, understandable and accessible patient information is vital in modern medicine. Treatment choices for patients with BOO are complex due to the range of possible approaches that can be used. Different techniques will produce subtly different outcomes and implications for patients. Side-effects can be embarrassing for patients to discuss, yet failure to address them can have devastating consequences. Communicating these issues to patients, and being confident that they have understood, is a considerable challenge but is central to the process of informed consent.

Expert input is needed to produce useful patient information resources. For example, one in five adults find it challenging to understand language aimed at a typical 12-year-old, so that the language of written content must be appropriate to the audience. Information should be well presented and engaging. Including pictures and diagrams will help improve patient understanding. Information should be accessible to all, which may require translation into a number of different languages and formats. Centres should look at their own patient demographics to determine local patient information requirements and tailor information accordingly.

Increasingly, patients look online to find their own information. It can be difficult for them to navigate the large quantity of information available and to identify trustworthy sources. Clinicians should be able to offer guidance to patients about getting the best out of online material.

Patient Decision Aids

More recently, a number of patient decision aids (PDAs) have been developed. These go one step further than the provision of information alone, and help patients to make informed choices, taking their personal values and preferences into account. They provide information about available options from an evidence-based perspective, encourage active engagement with the decision-making process and help patients to think through what is important to them, so that they can make choices that reflect their priorities and wishes. A number of PDAs have already been developed for shared decision making in BOO treatment, the most advanced of which is from the [Canadian Urological Association, published in May 2021](#).

Use of a BOO PDA for patients deciding between non-surgical, surgical and minimally invasive treatment options is recommended. Centres should be encouraged to use a PDA even if they are unable to provide all the treatment options locally. It is vital, moving forward with UAN collaboration, that patients have equity of access to all treatments.

Read our [case study on understanding patient information requirements](#)

Read about [areas for further research in patient decision aids](#)

4D Offering a comprehensive range of treatment options within a urology area network

Key quality actions:

- Develop collaboration between all of trusts within a Urology Area Network to ensure that a comprehensive range of BOO treatment options is available
- Ensure that investment in BOO technology is part of an overall UAN plan that provides an efficient use of resources
- Review arrangements for recruitment of patients into BOO clinical trials

Among the range of [NICE approved treatments](#) of bladder outlet obstruction are:

- monopolar or bipolar transurethral resection of the prostate
- transurethral vaporisation of the prostate
- holmium laser enucleation of the prostate
- transurethral incision of the prostate
- water vapour therapy
- prostate artery embolization
- prostatic urethral lift

With an increasing range of new innovations for the treatment of BOO, not all treatment options will be available within a single centre. It is expected that hospitals within a UAN collaborate, so that patients can be offered a range of treatments, even if this means travelling beyond their local centre.

Some procedures, such as prostate artery embolisation (PAE), may be restricted to a small number of centres. This should not limit appropriate patients accessing this treatment but may necessitate more than one UAN referring patients to a particular centre.

Within the UAN, there should be consistency of the use of patient information resources and patient decision aids. Similarly, there needs to be a clear description of the UAN's provision for BOO surgery.

Evaluation of the results of different treatment modalities for BOO is ongoing as it takes a number of years before mature outcomes can be assessed. It is important that patients should, wherever possible, be offered the option of being recruited into clinical trials that evaluate BOO management.

There is a responsibility on all service providers to use NHS resources efficiently. It is incumbent on clinicians and managers actively to collaborate in developing a UAN plan for BOO treatment that is efficient and effective. This will mean that different hospital sites might offer different treatment options within a system that allows free access for patients to a comprehensive range of therapies.

Read our [case study on providing patients access to innovation](#)

4E Maximising the use of day surgery and improved recovery pathways

Key quality actions:

- Develop day surgery pathways for BOO patients in line with British Association of Day Surgery guidance
- Ensure that any patient who is discharged with a catheter in situ is provided with support, and early catheter removal

Guidelines for day-case surgery, published in conjunction with the British Association of Day Surgery (BADS), suggest that 75% of elective surgery should be performed as day cases but this is yet to be suitably applied for men undergoing BOO surgery. Patient, surgical, anaesthetic and environmental factors have to be taken into account in the implementation of best practice pathways, such as those detailed in the [National Day Surgery Delivery Pack](#).

Traditionally, TURP has been associated with an operative time of 60-90 minutes and a 3-4-day hospital admission. However, the use of green light and holmium lasers for vaporisation or enucleation of the prostate, as well as advances in bipolar TURP (bTURP), have been adopted to reduce blood loss and length of stay following bladder outflow surgery. More recently, the use of newer, minimally-invasive surgeries, including prostatic urethral lift and water vapour therapy, have been introduced. The duration for minimally-invasive procedures is around 20 to 30 minutes and most patients do not need a hospital stay.

As a result of these technical innovations, focus has turned towards the potential for bladder outflow surgery to be performed in a day case setting. This will necessitate investment in equipment and training, given that, currently, 80% of BOO operations are TURPs.

Managing patients' expectations of their treatment pathway is important in maximising day case rates. Discharge protocols are also integral to successful day surgery. Adherence to a rigorous, nurse-led discharge protocol is known to improve the efficiency of patient discharge.

An important element to ensuring high use of day surgery, or short inpatient stays, is catheter management. Using modern technology, many patients can be discharged on the day of surgery, catheter-free. However, some may need to be discharged with a catheter in situ. It is recognised that pre-operative patient education and post-operative support will allow many patients to be satisfactorily discharged with a urinary catheter in situ. Catheter removal in the early post-operative period can be organised either at home or on return to an outpatient facility.

Read our [case study on day case BOO surgery](#)

It is highly desirable for patients to be able readily to access advice following discharge home. This can be achieved using telephone advice lines and drop-in assessment facilities, should a face-to-face consultation be needed.

4F Optimising arrangements for follow up and audit

Key quality actions:

- Ensure that follow up arrangements are individualised to the patient and make efficient use of resources
- Ensure that the evaluation of key outcome measures is built into follow up protocols

The landscape of outpatient follow up post-surgical review has changed dramatically over the past few years. In addition to standard face-to-face outpatient clinic appointments, there are virtual appointments, patient initiated follow up (PIFU), and remote monitoring of patient-submitted information.

Follow up after BOO surgery lends itself well to PIFU and remote monitoring, using standardised outcome questionnaires (IPSS, QoL and IIEF scores). Further detail on these approaches can be found in the [GIRFT Academy guide to urological outpatient transformation](#).

Plans for follow up should be clearly communicated to the patient at the time of discharge to make sure that patients know exactly what symptoms or difficulties might arise, and what follow up arrangements are in place. Where patient contact is needed, follow up can be undertaken by specialist nurses or medical staff. Patient contact should be timed to allow early post-operative symptoms to have settled so that any residual longer-lasting symptoms can be evaluated; post-operative follow-up at 3 months is usually appropriate. Follow up arrangements must be robust in relation to the provision of results from histological examination of any prostatic tissue which was sent for analysis.

An important aspect of the after care of patients following BOO surgery is the provision of advice about self-management of residual symptoms. This requires provision of supporting information which give individuals the skills and confidence to treat and cope with their symptoms, while reinforcing their role in taking responsibility for their own health.

A high-quality service for BOO treatment will build the audit of outcomes into its standard practices. Post-operative patient-reported outcome measures are particularly valuable in this type of surgery, given that the majority of patients are undergoing a procedure principally to relieve symptoms.

Read our [case study on optimising follow up](#)

4G Developing a workforce with specific knowledge and skills for managing bladder outflow obstruction

Key quality actions:

- Ensure that patients are managed under the care of consultants who have a special interest in bladder outflow obstruction treatment
- Develop the knowledge and skills of the wider clinical team who provide care to bladder outflow obstruction patients

Whilst it is accepted that there is a need for sub-specialist consultants to undertake certain urological procedures, such as radical prostatectomy and cystectomy, BOO surgery has traditionally been considered a 'general urology' discipline in which all UK urologists have been trained. However, this arrangement is no longer fit for purpose. Many urologists with other sub-specialist interests no longer deliver a consistently high volume of BOO consultations or surgical procedures. With an increasing menu of interventions to choose from, maintaining expertise amongst all consultant urologists is impossible.

It is apparent that BOO management will be undertaken by fewer urologists, and that these consultants will need to have sub-specialist expertise in the field. Identifying this cohort of consultants will need to be undertaken on a UAN basis so that there is a match between capacity and demand across a region. There will need to be changes to urological training to enable clinicians to develop the required sub-specialist skills.

This consultant workforce will need to lead the transition towards a new model of care for BOO patients which delivers the quality ambitions which are set out in the previous sections of this document. This will involve planning for and commissioning the introduction of new technology, designing pathways of care and working with colleagues to develop a suitably skilled multi-disciplinary workforce. There will be a truly transformative agenda.

Read our [case study on workforce development](#)

5. Good practice case studies

For each of the seven areas for quality improvement described in section 4 (see above), a number of good practice case studies have been collated. These studies draw on the experience of teams that have already achieved quality improvement in the highlighted area of bladder outlet obstruction.



5A Managing patients in a timely manner to improve patient experience and outcomes

Waiting list management using SMS messaging University Hospital of Southampton (UHS) NHSFT

Motivation and aims

Backlogs for surgery have lengthened and in urology we have seen BOO surgery waiting lists build alarmingly because of the COVID-19 pandemic. The NHS needs to identify who still needs treatment and how best to prioritise patient flow, making best use of NHS resources. Trusts also need to provide up to date waiting list information to NHS England.

Traditional waiting list management techniques have been resource-hungry, with patients being contacted to check whether they still need surgery, normally via letter. Patients are asked about treatment and are required to phone back to provide the information required. For patients who do not respond, a follow up call would be made. This inefficient way of working leads to delayed data collection and means extra demand is placed on an already overstretched resource.

UHS Digital contacted a trusted tech partner to help them find a more efficient digitalised solution.

What was done

The company took the initial product requirements for a digital waiting list management system from the UHS team and was able to build a minimum viable product within three business days, through use of low-code and iterative, agile working. The solution was presented to UHS Digital and clinicians in a feedback session. The updates and refinements were incorporated in real-time and then released to user acceptance testing. The power of low-code and agile working made it possible to release a solution to go-live within a week.

Mobile details are available for 75% of the 8,500 patients that UHS needs to contact. Now, these patients are sent SMS messages and asked to provide a secure response online. 88% of such patients have interacted with SMS communications. Patients who do not initially respond are sent reminder SMS messages. Letters have been sent out to the 25% of patients who have not provided mobile numbers. Those patients can then access the dedicated website, complete the survey, and provide their mobile number for future use through the digital communications platform.

Successes/ key points of good practice

The system has driven greater efficiencies in patient management, including:

- Instant responses received from patients: the number of responses received on the first day communications are issued via text has exceeded what could be collected within the first few weeks using a traditional, manual approach
- Savings on postage and resource costs are made, compared to sending letters or calling
- Actionable management information is available for the trust
- There has been a significant reduction in the number of calls required to understand patients' waiting list requirements
- NHS England data returns are maximised and returned quickly, with minimal manual input
- Valuable clinical resources can be focused on priority patients

The system has been relatively easy to implement, as it is easy to configure to trust requirements and can be flexibly deployed, with the ability to ask specific questions of patients

Lessons learned

- Agile working has helped deliver a digital solution on a very ambitious timeline
- The system can be adapted and used in many applications

5B Providing a one-stop service for patient assessment to improve quality and increase efficiency

Male lower urinary tract symptoms one-stop outpatient clinic Imperial College London NHS Trust

Motivation and aims

Lower urinary tract symptoms (LUTS) are a substantial reason for referrals to urology clinics across the UK. This places significant pressure on overstretched resources. In the standard (old) pathway at our university hospital, patients waited 20 weeks for a new appointment and 55 weeks for a follow up appointment. Enabling definitive management plans on the same day of the first visit through designing a one-stop LUTS clinic can reduce this 35 week gap.

What was done

As one of Imperial's Flow Coaching Academy quality improvement projects, we introduced a new one-stop male LUTS clinic following a successful pilot.

This new one-stop clinic comprised consultations before and after the required diagnostic tests (flow rate, post-voiding bladder scan, flexible cystoscopies and transrectal ultrasound) on the same day.

This resulted in a definitive management decisions being made on the same day in the large majority of patients.

Successes/ key points of good practice

- The one-stop model reduced the need for follow up appointments from 60% (in the old pathway) to 5%
- The one-stop model increased the number of patients offered surgical management at their first appointment from 10% (old) to 57% (one-stop)
- There was also an increase in discharges from secondary care (from 25% to 32%) at their first consultation
- Patient decisions aids (PDAs) were developed to assist patients in reaching a decision on the most suitable treatment option for their condition

Lessons learned

- Employing a one-stop clinic model for LUTS patients can reduce the patient pathway by 35 weeks, while providing more consistent and higher quality care, and reducing variability in patient management
- Definitive plans regarding surgical management or discharge are made at the first visit, due to the availability of all investigations
- Patient reported satisfaction surveys were positive (98% preferred the one-stop model and 100% were satisfied or extremely satisfied)

One-stop BPH clinic

NHS Fife, Scotland (Victoria Hospital- Kirkcaldy, St Andrews Community Hospital, St Andrews)

Motivation and aims

A one-stop BPH clinic was introduced to streamline patient assessment and support for BOO surgery, given the large range of options available. The aim was to improve patient experience and develop a more uniform standard of care.

What was done

A one-stop BPH clinic was set up to provide surgical assessment and counselling for BOO patients. Patients are referred to the clinic by GPs (if refractory or intolerant of conservative treatment, or catheterised) or by colleagues if BOO surgery counselling is required. This clinic is run by a consultant urologist with special interest in BOO surgery and supported by a nurse specialist (or dedicated band 5 nurse) who would follow the patients journey and arrange follow up.

Once referred, the booking officer sends the patients a BOO clinic package with a 3 days bladder diary and specific validated questionnaires (IPSS/IIIEF3, OAB score, PGI-C score, Retrograde Ejaculation – Y/N, QoL score) for completion prior to attendance. A nurse specialist's contact details are provided for queries.

Upon arrival, a flow rate and post void residual urine volume is measured (unless catheterised). If surgery is recommended, prostate volume estimation is determined with a transrectal probe (unless a recent transabdominal/MRI volume is available). Flexible cystoscopy is performed only if a diagnostic uncertainty is encountered (prostate volume <40 cc, history/flow suggestive of stricture, recent haematuria). The patient will be placed on the waiting list for treatment following their visit to the one-stop clinic and provided with relevant patient information materials.

Nurse-led follow up is provided in the BOO follow up clinic at three months. Validated parameters will be compared and, if concerns are raised, then a consultant led review will be arranged.

Successes/ key points of good practice

- Standardised patient pathways and uniform data collection
- Informed shared decision-making process so that patients are fully informed about their options considering current data, weighing safety/side-effects profile against the likely durability of the treatment
- Patients avoid multiple visits (reduces waiting times)
- Excellent teaching opportunity for trainees/students

Lessons learned

- Patients should be informed that they might be in the unit for a few hours as they will need uroflowmetry, prostate volume, possible flexible cystoscopy, bloods etc
- Ensure 30 minute face-to-face clinic slots are booked
- Easier to set up in a unit that has other one-stop clinic formats
- Counselling should take into account available procedures in the wider UAN, rather than what is only available in the local trust

5C Providing high-quality information to patients

Patient information initiative

BPH Academy, BAUS/GIRFT

Motivation and aims

The project aimed to:

- Formulate a shared decision aid to improve patient understanding of treatment options available for benign prostatic hypertrophy and facilitate their decision-making process
- Provide a standardised template to support discussion and counselling, assisting both the physician/surgeon and patient during this consultation process
- Provide signposting for patients to access additional information
- Standardise representation of information, data and outcomes in a way that is accessible to all patients and in a format that is clear and understandable

What was done

Funding was sourced from BAUS and GIRFT for a patient and public engagement initiative to explore:

- What information participants would like regarding a medical condition that requires treatment (full referral pathway versus focused information on treatment options - along with how comprehensive this information should be)
- At what point in the pathway the information should be provided (ie. at GP appointment or at specialist clinic appointment)
- In what format (paper versus digital) to maximise patient understanding and clear representation of data (engaging infographics)

Successes/ lessons learned

- Patient preferences recorded and now in progress/development
- Standardised animation requested for each procedure accessible by a central locker
- Information required to be engaging with related infographics to represent risk, to ensure understanding by all educational backgrounds
- Acknowledgement that paper patient information is also required
- Digital shared decision tool agreed as an overall preference amongst participants
- The GIRFT Academy BOO team is now engaging with NHS X to progress the development of the decision aid

Key points of good practice

- Ensuring a representative, diverse group of patients helped ensure a balanced approach to materials development
- Circulation of examples of patient information, infographics and animations allowed a tangible review of preferred material
- Enthusiasm of participants to continue the initiative as it develops, allowing continuation of input during the process, helps, demonstrated support for the development of a PDA for BOO

5D Offering a comprehensive range of treatment options within a urology area network

Developing a business case to support the introduction of new technologies

Hampshire Hospitals NHS Foundation Trust (HHFT)

Motivation and aims

Having successfully introduced the prostatic urethral lift (PUL) in early 2016, the business case for introducing another cost saving MIST was relatively straightforward. The predictable fixed cost of only one handpiece per case with water vapour therapy balanced with the avoidance of a TWOC for 82% of patients undergoing PUL left little between the two in terms of financial outlay. The benefits of being able to offer patients a new MIST with the versatility of being able to routinely treat the prostatic median lobe, made this a welcome addition to the portfolio following its introduction in 2017. The goal was to complement the established treatment options and further reduce the demand for inpatient beds and theatre time. An audit performed in 2014 had previously demonstrated an average stay of 19.5 hours for photoselective vaporisation of the prostate and 53 hours for TURP

What was done

In 2017 a business plan was developed and taken through the trust business planning process. Given that we were the first unit in the UK offering this treatment modality, additional governance measures were put in place and a dedicated nurse-led follow up clinic was set up in preparation. A detailed questionnaire was also created which included relevant PROMs, as well as information about urological medications, and objective measures of outcome, including Qmax. A satisfaction questionnaire was included for all patients to complete at six months post operatively. Gland volumes were also recorded. Data was collected prospectively for consecutive patients following the first case in March 2017. The procedure now carries its own reimbursement coding M656 which maps to HRG codes LB70C/D. In 2020, NICE (MTG49) guidance estimated a cost saving of £550 over 4 years compared with TURP.

Successes/ key points of good practice

- Our case series has now exceeded 700 patients treated to date. In the first 4 years pre- and post-operative data is available for the initial 461 patients. We recommend performing the first 15-20 cases under general anaesthetic
- To date, 40% of our patient have had the procedure under GA with the remainder performed under local anaesthetics with or without light sedation. The mean operative time was 17.5 minutes. In an audit period between October 2018 and March 2019, all patients undergoing water vapour therapy on a morning list were discharged the same day. The average length of catheterisation was 5 days. The surgical retreatment rate in the first year was 2.4%.

Lessons learned

- water vapour therapy is a versatile option for men of all ages but is ideally suited to men who wish to preserve sexual function with early return to normal activities
- In light of positive early results, we do consider larger gland sizes >80mls in select cases and the median lobe does not present an obstacle to treatment
- Securing engagement from all members of the urology team can be challenging and can pose a risk to successful adoption of any technology

5E Maximising the use of day surgery and improved recovery pathways

Day Case Holmium Laser Enucleation of the Prostate (HOLEP) Norfolk & Norwich University Hospital

Motivation and aims

Growing waiting lists for bladder outflow surgery and limited access to main theatre lists drove a change to day case BOO surgery. In 2012, the option of HOLEP was a one-night stay procedure. A day case pathway was introduced that year with a view to moving this cohort of procedures away from main theatres to free up space for other work.

What was done

Men requiring HOLEP were booked as a day case as default and procedures performed in the day unit from September 2012 onwards. They were discharged with a 3-way catheter (with the irrigation limb spigoted) and a district nurse-led trial of voiding booked for 24 hours. Data for the first two years of the service were audited with three years of follow up.

267 men were performed in the time period. 76.7% were intended as day case procedures.

Successes/ key points of good practice

- 82.9% of intended day case HoLEP patients were successfully discharged the same day
- Readmission rate within 28 days was only 2.94%
- Median post-operative IPSS and quality of life scores were 2 and 0 respectively
- For trusts lacking the scale to deliver HoLEP on site, delivery may be supported via a urology area network

Lessons learned

- The vast majority of HOLEPs regardless of size can be managed as day cases. More than 1200 men have now been managed on this pathway
- Reasons identified for failure of day case discharge included social factors (no accompanying adult at home- 6%), need for continuous bladder irrigation – 5%, and patient being recovered on an inpatient ward rather than day unit
- Sepsis - requiring readmission for intravenous antibiotics was only observed in 1.17% of the cohort
- Spinal anaesthesia was more common in the failed discharge cohort
- The mean age of failed discharge patients was higher

5F Optimising arrangements for follow up and audit

The Follow Up Pathway post minimally invasive surgical treatment

Hampshire Hospitals NHS Foundation Trust (HHFT)

Motivation and aims

Historically, men at HHFT have had the opportunity to access a range of treatments for BOO. When we decided to introduce minimally invasive surgical treatment (MIST), water vapour therapy, at the trust, we decided to set up an additional clinic to ensure that the new patient pathway was optimised. As an early adopter of this technology, we had a responsibility to audit patient experience and outcomes to evidence its impact. Our thorough approach to follow up was intended to provide reassurance on the treatment and guidance on pathway development.

What was done

A post-op BPH telephone clinic was already in place, with patients attending at three months post-op with a view to being discharged to their GP if symptoms had improved.

Initially, follow up for the new post-MIST treatments, prostatic urethral lift and water vapour therapy, was carried out at face-to-face appointments, at three months, six months, 12 months and 24 months. A flow rate and post void residual scan and PROMs IPSS/QOL/IIEF/Ejaculatory score and EQ-5D were completed at each appointment review.

Over time, review of data generated through the intensive follow up schedule, suggested that the frequency and mode of patient follow up could change to a telephone review at three months; face-to-face appointment at six months and a telephone appointment and discharge at 12 months.

Successes/ lessons learned

- MIST treatments are different to traditional operations and necessitate a more patient-centric and collaborative approach to follow up to optimise outcomes
- The introduction of nurse-led review clinics has continued to provide an excellent yet efficient service for patients undergoing BOO treatments
- The evolution of these follow up arrangements has helped inform requirements around future clinics and increased clinical nurse specialist capacity for the BOO service, with the addition of a band 6 and band 4 role
- More sophisticated methods for follow up will be adopted as the service continues to evolve, including patient initiated follow up
- The My Medical records arm set up for BOO in its infancy required additional work to make it fit for purpose. An upgrade will enable patients to upload symptom score values, which will either trigger a red flag to contact the patient or confirm the existing patient initiated follow up pathway. We will also be able to produce reports to evaluate all BOO outcomes, improving our virtual outpatient review

Key points of good practice

- With the review of outpatient utilisation, we were able to sustain the nurse-led clinical follow up for BOO patients
- With data to illustrate the volume of patients for review, we were able to increase the clinical nurse specialist hours for the benign service, to ensure that it was adequately staffed
- PROMs recorded at each outpatient review enabled the department to evaluate surgical outcomes

5G Developing a workforce with specific knowledge and skills for managing bladder outflow obstruction

Streamlining the pathway for men with urinary retention

Freeman Hospital, Newcastle-upon-Tyne

Motivation and aims

The aim of this service was to streamline the pathway for men with acute urinary retention, from the point of a referral being received to outcome from trial without catheter (TWOC). The service limits the patient to one visit to the hospital but ensures a history has been taken prior to the visit, and that suitable medical management is started, where appropriate, before attending for TWOC.

The motivation for setting up the service was to have a robust, standardised pathway that would increase capacity for men to be seen in the shortest time possible after going into retention, whilst providing opportunities for nurses to upskill. The service started before COVID-19 and used a nurse-led telemedicine assessment at the outset of the pathway, allowing for both on and off site working. We were aware of multiple pathways for patients in retention and wanted to amalgamate these, so that patients received the same standard of care. By enabling three specialist nurses to run the service, we planned to remove variation that could be detrimental to the speed with which patients were seen and assessed.

What was done

We notified all secretaries, doctors (A and E and hospital) and specialist nurses who receive retention referrals to forward these to the TWOC clinic nurses. In addition, patients booked into our consultant hot on-call clinic were diverted to the TWOC clinic.

Dedicated training was delivered to the nurses involved with regards rectal examination and assessment. The nurses involved also shadowed consultant consultations for men in retention, to develop a broader knowledge base on management options and assessment. Time in the nurses' job plans was secured for the initial telephone consultation and production of a letter, generated electronically in real time, which was sent to the patient and their GP.

At the end of the initial consultation, if the plan is for TWOC, the date and time for the TWOC is given to the patient both verbally and in the outcome letter. The TWOC appointment is delivered in a dedicated area set out as a lounge with sofas and soft chairs. At the time of TWOC, men have a rectal examination to exclude a malignant-feeling prostate. In those men who fail and are progressing to surgery, a trans rectal volume scan is performed at that time, if possible. We are continuing to train the specialist nurses so all can perform trans rectal ultrasound volume assessment independently.

Successes/ lessons learned

- Nurses delivering the service enjoy it and actively promote it
- Dedicating time and resources to training and skills development improves staff retention
- Lessons learned:
 - Nurse lead prescribing decreases primary care workload
 - Currently telephone only and no video consultation
 - No patient user group input as yet but a patient feedback exercise will be the next step
 - Some patients may request community-based TWOC and we are considering how best to achieve this and also perform the rectal examination of the prostate

Key points of good practice

- We have amalgamated many points of entry into our service into one pathway, increasing efficiency and patient experience
- Patient booking, delivery and administration is all done by the nurses delivering the service, allowing ownership and a focused approach to service-improvement
- New skills in patient assessment and ultrasound scanning have improved the skills base for nurses within the department
- Telephone initial contact is COVID-19 safe, efficient and allows off site delivery of this part of the service when team members cannot work on site
- Dedicate TWOC lounge aids patient comfort away from a more clinical setting
- Men with no prior LUTS and successful TWOC are discharged to primary care

6. Additional information

Background and context on bladder outlet obstruction

Recommended document	Author	Overview
NICE Clinical Guideline: [CG97] Lower urinary tract symptoms in men: management	NICE	The NICE guideline covers managing lower urinary tract symptoms (LUTS) in men over 18. This guideline was last update in 2010 and is due to be reviewed.
The management of lower urinary tract symptoms in men	Jonathan Rees, Matthew Bultitude, Ben Challacombe	BMJ clinical review article describing management of lower urinary tract symptoms in men, published June 2014
Burden of male lower urinary tract symptoms (LUTS) suggestive of benign prostatic hyperplasia (BPH) – focus on the UK	Mark Speakman, Roger Kirby, Scott Doyle, Chris Ioannou	BJU International review, published March 2014
Comparative efficacy and safety of new surgical treatments for benign prostatic hyperplasia: systematic review and network meta-analysis	Huang et. Al	BMJ research article, published September 2019
The influence of family history on prostate cancer risk: implications for clinical management	Stephen Madersbacher et. Al	BJU International article, published December 2010

Overarching guidance on bladder outlet obstruction management

Recommended document	Author	Overview
EAU Guidelines on the Assessment of Non-neurogenic Male Lower Urinary Tract Symptoms including Benign Prostatic Obstruction	European Association of Urology	EAU guidelines on BPO
AUA Guideline: Management of Benign Prostatic Hyperplasia (BPH)	American Urological Association	AUA guidelines on BPH

6A Managing patients in a timely manner to improve patient experience and outcomes

Recommended document	Author	Overview
Healthcare-associated urinary tract infections in patients with a urinary catheter: Risk factors, microbiological characteristics and patterns of antibiotic resistance	Jimenez et al	Assessment of catheter-associated urinary tract infections in a urology department
Does length of time spent on the waiting list for TURP influence the outcome?	Journal of Clinical Urology	A study to understand whether increasing time on a waiting list influences the

		outcome from a transurethral resection of prostate
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6B Providing a one-stop service for patient assessment to improve quality and increase efficiency

Recommended document	Author	Overview
A framework for re-establishing and developing urology services in the COVID-19 era	GIRFT	Reviews how service recovery might be achieved in urology, including consideration of one-stop clinics
Patient information leaflet for one-stop LUTS clinic	East Sussex Healthcare	Patient information regarding a one-stop LUTS clinic
A novel one-stop LUTS clinic model	Uma Walters Tara Latimer, Sophie Dean, Michael Morgan, Viren Jeram, Tamer El-Husseiny	An abstract from World Congress of Endourology 2019, setting out one-stop clinical model from Charing Cross Hospital, Imperial College Healthcare NHS Trust

6C Providing high-quality information to patients

Recommended document	Author	Overview
Enlarged prostate patient decision aid	Canadian Urological Association	Patient decision aid to discuss surgical treatments for an enlarged prostate
An introduction to patient decision aids	British Medical Journal	Overview of patient decision aid related considerations
NHS Choices information on consent to treatment	NHS Choices	Information on consent and the importance of appropriate written language to the audience and including pictures and diagrams to improve patient understanding.
Insights into the decision-making process for men selecting therapy for non-neurogenic Lower Urinary Tract Symptoms	Winchester Healthy Lives Research Group, Husted, M., Gray, D., Golding, S. E., & Hindley, R.	Qualitative study interviewing male patients to understand the key factors and influences for men when trying to decide between the various treatment options for non-cancerous urinary problems.

6D Offering a comprehensive range of treatment options within a urology area network

Recommended document	Author	Overview
Contemporary surgical management of benign prostatic obstruction: does there remain a place in the toolbox for TURP?	Journal of Clinical Urology, Trail et al	Overview of treatment pathway considering TURP and newer treatments for BOO
Minimally invasive surgery for benign prostatic obstruction: new insights and future technical standards	Current Opinion Urology, Rijo et al	Review of MISTs

6E Maximising the use of day surgery and improved recovery pathways

Recommended document	Author	Overview
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National day surgery delivery pack	GIRFT, BADS, CPOC	A pack designed to enable NHS Trusts to expand and increase day case surgery for the benefit of the patient and the wider healthcare system. Includes case studies on BOO
National day case surgery appendices	GIRFT	Resources to support day case surgery delivery, including 'How to' guides on day case Green Light laser prostatectomy (p26) and day case transurethral resection of prostate (p30)
Guidelines for day-case surgery 2019	Bailey, C.R., Ahuja, M., Bartholomew, K., Bew, S., Forbes, L., Lipp, A., Montgomery, J., Russon, K., Potparic, O. and Stocker, M.	Guidelines from the Association of Anaesthetists and the British Association of Day Surgery

6F Optimising arrangements for follow up and audit

Recommended document	Author	Overview
UK National Bladder Outflow Obstruction Surgery Snapshot Audit	British Journal of Urology, JJ Anning et al	Study to determine the pre-operative assessment and peri-operative outcomes of men undergoing BOO surgery in the United Kingdom
Current process and outcomes of the surgical management of LUTS due to benign prostatic enlargement: how consistent are we?	Scottish Medical Journal, Joshi et al	Results from the multi-institutional audit of surgical management of BPE in the United Kingdom

6G Developing a workforce with specific knowledge and skills for managing bladder outflow obstruction

Recommended document	Author	Overview
Implementation of a nurse-led LUTS clinic reduces general urology clinic workload in a Model 4 Hospital. Richard to complete	Kevin G. Keane, Muhammad Shakeel Inder, Caroline McIntyre, Shawgi Omer, Elizabeth McEvoy, Et al.	Irish Journal of Medical Science article on a pilot study in Tallaght University Hospital, which found that introduction of a specialist nurse-led clinic significantly reduced the number of patients requiring follow-up in general urology clinics, representing a quality improvement in service provision.

7. Delivery checklist

Pathway component	Key actions
7A Managing patients in a timely manner to improve patient experience and outcomes	<ul style="list-style-type: none"> • Ensure that men with severe lower urinary tract symptoms are prioritised in patient pathways • Ensure that urinary retention pathways do not allow inappropriate delays in care to develop • Ensure that patients with indwelling catheters, or severe lower urinary tract symptoms, are afforded a high priority on surgical waiting lists
7B Importance of high-quality patient information for BPH patients	<ul style="list-style-type: none"> • Ensure that protocols are available for primary care colleagues, so that seamless care is provided for men with lower urinary tract symptoms • Establish one-stop clinic services for men with lower urinary tract symptoms
7C Patients being offered the full range of treatment options as part of a urology area network	<ul style="list-style-type: none"> • Review the portfolio of patient information that is offered to men with bladder outflow obstruction • Ensure that patient decision-aids are available to facilitate discussions about treatment options
7D Providing a one-stop service for patient assessment to increase efficiency, improve quality and reduce demands on patients	<ul style="list-style-type: none"> • Develop collaboration between all of the trusts within a Urology Area Network to ensure that a comprehensive range of BOO treatment options is available. • Ensure that investment in BOO technology is part of an overall UAN plan that provides an efficient use of resources • Review arrangements for recruitment of patients into BOO clinical trials
7E To introduce PIFU where appropriate but ensure ongoing collection and review of PROMs (IPSS and QoL)	<ul style="list-style-type: none"> • Develop day surgery pathways for BOO patients in line with British Association of Day Surgery guidance • Ensure that any patient who is discharged with a catheter in situ is provided with support, and early catheter removal
7F In line with BADS recommendations, centres should aim to discharge patients on the same day	<ul style="list-style-type: none"> • Ensure that follow up arrangements are individualised to the patient and make efficient use of resources • Ensure that the evaluation of key outcome measures are built into follow up protocols
7G Take a comprehensive approach to managing waiting lists	<ul style="list-style-type: none"> • Ensure that patients are managed under the care of consultants who have a special interest in bladder outflow obstruction treatment • Develop the knowledge and skills of the wider clinical team who provide care to bladder outflow obstruction patients

8. Areas for further research

For those wishing to carry out additional research, the following priorities could help drive further improvements to bladder outlet obstruction care:

- To evaluate further the optimal patient decision aid for UK men considering treatment options for symptomatic BOO
- To develop and evaluate the feasibility of an intervention that will support clinicians and patients in moving from the 'risk-benefit' part of the treatment option discussion to the 'this is the right treatment for me' part of the discussion
- Randomised trials comparing minimally invasive interventions for the treatment of symptomatic BOO with conventional treatments, including laser therapies and TURP
- To support patients having rapid treatment it would be helpful to have data on what happens to people left with catheters for long periods of time
- Evaluation of new technologies and their use in the UK, including comparison with established treatments
- Further research into the potential role of simulation in training on improving patient outcomes

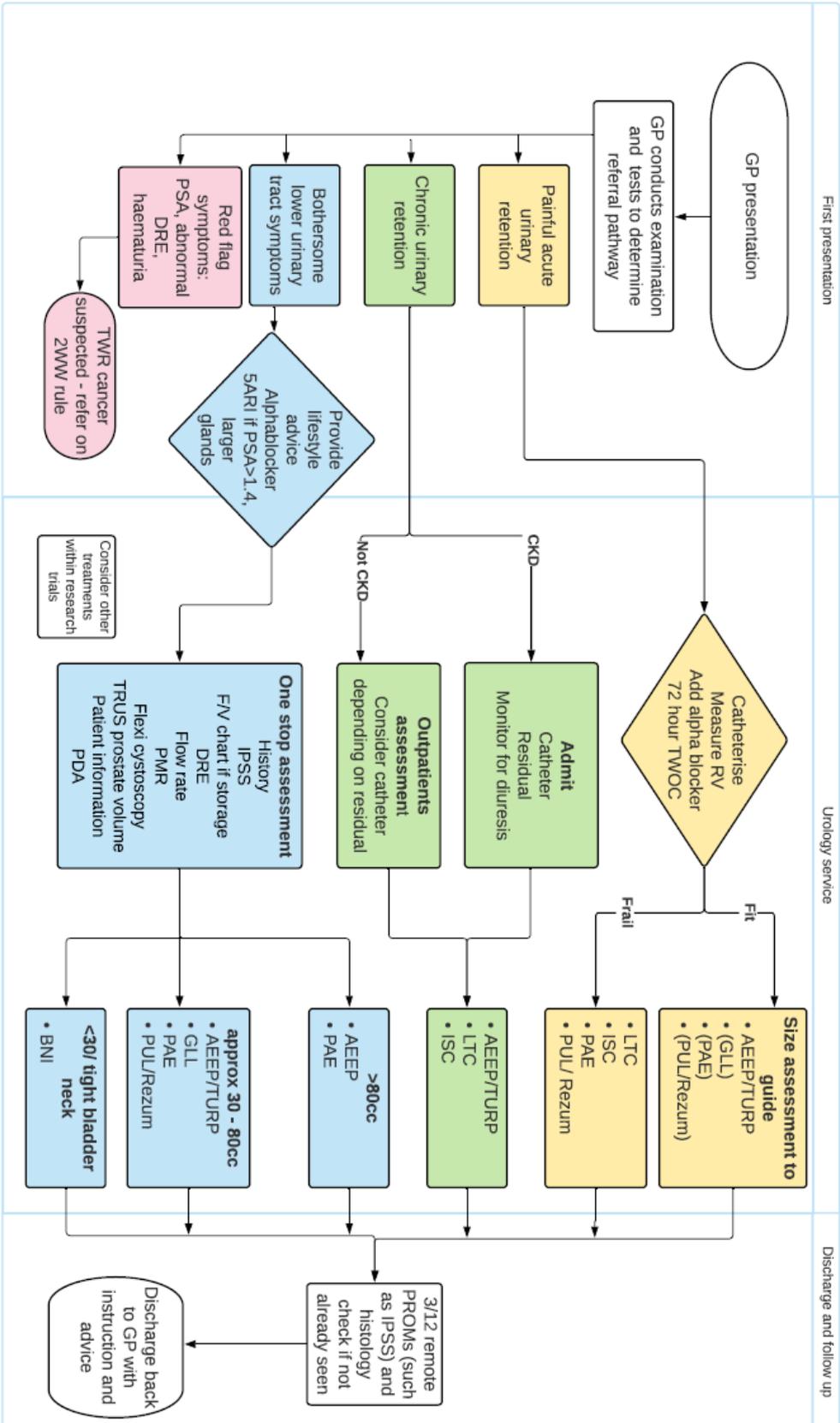
In developing section 4C on providing high-quality information to patients, it became clear that patient decision aids would be the next step, providing not just information but helping patients to make informed choices by actively engaging them with the evidence and their personal values and preferences.

Clare Bent and Rachel Morrison, members of the GIRFT Academy bladder outlet obstruction group, had begun work on patient decision aids with the support of Margaret Husted and Debra Gray of the University of [Winchester Healthy Lives Research Group \(HLRG\)](#) and Helen Allen and Louise Ward from the Bournemouth University Clinical Research Unit.

It is expected that this work will lead to the development of a patient decision aid product and this will be included in an updated edition of this document and on the GIRFT Academy.

Appendix

Full page pathway



Glossary

Organisations/groups

AUA	American Urological Association
BADS	British Association of Day Surgery
BAUN	British Association of Urological Nurses
BAUS	British Association of Urological Surgeons
EAU	European Association for Urology
GIRFT	Getting it right first time programme

Acronyms

AEEP	anatomical endoscopic enucleation of the prostate
BPE	benign prostatic enlargement
BPH	benign prostatic hyperplasia
CISC	intermittent catheterisation
IPSS, QoL and IIEF	patient satisfaction scores
LUTS	lower urinary tract symptoms
BOO	bladder outlet obstruction
bTURP	bipolar transurethral resection of the prostate
MIST	minimally invasive surgical treatment
PDA	patient decision aid
PIFU	patient initiated follow up
PAE	prostate artery embolisation
PUL	prostatic urethral lift
PVP	photoselective vaporisation of the prostate
TURP	transurethral resection of the prostate
TWOC	trial without catheter
UTI	urinary tract infection
UAN	urology area network
WVT	water vapour therapy or water vapourisation

Contributors

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