Male Bladder Outflow Obstruction Surgery

Coder guidance on procedure coding

BAUS audit steering group

GIRFT clinical coding team

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GIRFT is part of an aligned set of programmes within NHS England

Contents

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What is this document for?

Introduction

The purpose of this document is to provide supplementary information to help coders gain a better understanding of the nature of male Bladder Outflow Obstruction procedures and the codes that most accurately describe them, together with why and how the procedures are performed. It also provides examples of different medical terms that may be used by medical professionals in a patient's medical record.

Understanding the relevant disease process and related procedures assists clinical coders to assign codes accurately and consistently in accordance with the national clinical coding standards. The information contained within this document is produced by the GIRFT clinical coding team in collaboration with the BAUS clinical audit committee.

All clinical codes used in this guidance are taken from OPCS-4.10 which is valid from April 2023.

What is this document not for?

This document does not cover the coding process in detail and does not cover specific index trails or national standards. The code examples do not replace or contravene national coding standards.

Included

Procedures to treat male bladder outflow obstruction (including Trans Urethral Resection of Prostate TURP).

Not included

Procedures to treat Prostatectomy for malignancy.

Any questions regarding the information within this document should be directed to

england.girft.coding@nhs.net

Queries relating to the application of ICD-10 and OPCS-4 classifications codes and the national clinical coding standards should be directed to information.standards@nhs.net.

Diagnosis

The prostate is a small gland located in the pelvis at the base of the bladder surrounding the urethra. If the prostate becomes enlarged, it can place pressure on the bladder and urethra. This can cause symptoms that affect urination, resulting in bladder outflow obstruction. Prostate enlargement (benign prostatic hyperplasia, BPH) can cause troublesome symptoms and may fail to respond to treatment with medication. Surgery to reduce the excess prostatic tissue may therefore be necessary. It may also be indicated following an episode of acute urinary retention.

Main procedures for male bladder outflow obstruction

Trans-Urethral Resection of the Prostate (TURP)

A transurethral resection of the prostate (TURP) is an endoscopic surgical procedure that involves cutting away a section of the prostate. This improves the flow of urine from the bladder to the outside.

The code for TURP where no other information is available is M65.3.

Table 1: OPCS-4.10 procedure code for TURP where no further detail is available

Code	Code definition
M65.3	Endoscopic resection of prostate NEC

Transurethral resection of the prostate (TURP) and transurethral resection (TUR) are standard, non-specific terms for male bladder outflow obstruction (BOO) surgery. Coders should aim to use the most precise codes to describe the type of BOO surgery performed. The main procedures that are currently performed for male bladder outflow obstruction are:

1. Monopolar TURP
2. Bipolar TURP
3. Bladder Neck Incision (BNI)
4. Holmium laser enucleation of prostate HoLEP
5. Greenlight laser vapourisation (PVP)
6. Rezum steam therapy
7. Urolift
8. Aqua ablation of prostate
9. Open prostatectomy (for benign disease)

1. Monopolar TURP

Monopolar TURP is a resection of the prostate using electricity (electrocauterisation). The term electrotome used in code M65.1 is not well understood (by anyone) and is never used by clinicians. Electrotome most likely refers to technology which is now obsolete. Because monopolar TURP uses electrocauterisation the most accurate way to code it is using the standard code for TURP (M65.3) followed by a modifier for electrocauterisation (Y10.2).

Table 2: Example of OPCS-4.10 procedure codes for monopolar TURP

Code	Code definition
M65.3	Endoscopic resection of prostate NEC
Y10.2	Electrocauterisation of organ NOC

Monopolar TURP requires the use of a nonconductive flushing solution. This fluid may contain irritants such as glycine which results in increased absorption of water. The fluid may be absorbed into the body causing TUR/TURP syndrome where sodium levels drop (hyponatraemia), and in severe cases can lead to neurological symptoms/coma/death. This would be coded as post-operative hyponatraemia along with codes for specific neurological symptoms.

It is not possible or necessary to distinguish between monopolar and bipolar TURP using OPCS-4 procedure codes: both procedures are coded the same. Surgical units tend to use only one of the two methods.

2. Bipolar TURP

Most units use this method of electrocauterisation instead of monopolar TURP. The different energy source used by the bipolar instrument means that saline can be used as a flushing solution during the procedure, therefore eliminating the possibility of developing TURP syndrome/hyponatraemia. Many of these bipolar devices have brand names that could be used in the clinical record (e.g. PLASMA, Advin, TURis).

Some bipolar instruments also allow the surgeon to switch to vaporisation as a technique during surgery. The instrument consists of a heated loop for resecting tissue (electrocauterisation) and a flat button-like tool that vaporises tissue. Vaporisation may be used towards the end of the surgery to achieve haemostasis. It is not necessary to code this vaporisation as a separate procedure code in addition to the codes for bipolar electrocauterisation.

Table 3: Example of OPCS-4.10 procedure code for bipolar TURP

Code	Code definition
M65.3	Endoscopic resection of prostate NEC
Y10.2	Electrocauterisation of organ NOC

3. Bladder Neck Incision (BNI)

Under general or spinal anaesthesia, an endoscope (cystoscope) is inserted into the bladder through the urethra. The bladder is checked for any additional problems before proceeding with the BNI procedure. An electric “spike” (which works by electrocautery) is used to cut through the thickened muscle at the neck of the bladder with the aim of improving the flow of urine. A laser may be used instead of electrocauterisation. Occasionally, it may also be necessary to remove some prostatic tissue (resection) to ensure the urinary channel remains clear and open. This will be documented in the clinical record and should be coded in addition to the BNI. A catheter is inserted into the bladder at the end of the procedure and normally bladder irrigation is performed through the catheter to flush out any clots or bleeding. It is not necessary to code the catheterisation and irrigation separately. On average, the procedure takes 20 to 30 minutes to complete. This is often a day case procedure though admission overnight may be required.

Table 4: Example of OPCS-4.10 procedure codes for BNI using electrocautery

Code	Code definition
M66.2	Endoscopic incision of outlet of male bladder NEC
Y10.2	Electrocauterisation of organ NOC

Table 5: Example of OPCS-4.10 procedure codes for BNI using laser

Code	Code definition
M66.2	Endoscopic incision of outlet of male bladder NEC
Y08.6	Laser incision of organ NOC

4. Holmium laser enucleation of prostate (HoLEP)

Lasers can be used for different procedures within bladder outflow obstructive surgery, including bladder neck incision and enucleation or vaporization of prostate.

HoLEP stands for Holmium Laser Enucleation of the Prostate. This is the most common type of laser procedure on the prostate. The laser is used to cut the prostate away from its surroundings, releasing the prostate tissue in several large "chunks" which are washed into the bladder. The laser is also used to seal off any blood vessels encountered during the procedure. The sealing of the blood vessels forms part of the procedure and does not need to be coded separately. Once the prostate has been cleared, a morcellator is inserted down the endoscope to "chew up" the prostate tissue in the bladder to enable the tissue to be extracted from the bladder for microscopic analysis in the pathology laboratory.

The morcellation and removal of the prostate pieces is a normal part of the HoLEP procedure and should not be coded separately. In some very large prostates, morcellation is not an option as it would take too long and be too difficult. In these rare cases, the large pieces of enucleated prostate are removed

through an open cystotomy (incision into the bladder). When the prostate pieces are removed through a cystotomy an additional procedure code should be used.

Table 6: Example of OPCS-4.10 procedure codes for HoLEP

Code	Code definition
M65.4	Endoscopic resection of prostate using laser
Y05.6	Enucleation of organ NOC

Thulium laser enucleation (ThuLEP)

ThuLEP stands for Thulium Laser Enucleation of the Prostate. This procedure is essentially the same as the HoLEP procedure described above but uses a thulium laser for the cutting/enucleation. The procedure codes will be the same as for holmium laser enucleation.

Table 7: Example of OPCS-4.10 procedure codes for ThuLEP

Code	Code definition
M65.4	Endoscopic resection of prostate using laser
Y05.6	Enucleation of organ NOC

5. Greenlight laser vaporisation (PVP)

Greenlight photoselective vaporisation of prostate (PVP) works by shining a green potassium-titanyl-phosphate (KTP) laser on the prostatic tissue, which is vaporised. This creates a channel, relieving the symptoms of benign prostate enlargement.

Table 8: Example of OPCS-4.10 procedure codes for greenlight PVP

Code	Code definition
M65.4	Endoscopic resection of prostate using laser
Y10.4	Vapourisation of organ NOC

Other lasers may be used to perform vaporisation of the prostate. Holmium laser vaporisation may be abbreviated to HoLVP and thulium laser vaporisation may be abbreviated to ThuVARP (vaporesection of prostate). The procedure codes for vaporisation of the prostate using laser are the same whichever laser is used.

Holmium laser vaporisation (HoLVP)

A holmium laser is used to penetrate tissue and vaporise it. The procedure codes for HoLVP are the same as for PVP in Table 8.

Thulium laser vaporisation (ThuVARP)

Thulium laser vaporisation may be described as Thulium laser vaporesection of prostate (ThuVARP). When compared to the holmium laser, this laser has a peak absorption spectrum closer to that of water, which causes increased tissue vaporisation and results in reduced penetration depth. The thulium laser therefore permits smaller and more precise cutting and consequently a decreased risk of bleeding. The procedure codes for ThuVARP are the same as for PVP in Table 8.

6. Rezum steam therapy

Rezum is an endoscopic procedure usually under local anaesthetic used for the treatment of symptoms of benign prostate enlargement. Steam is injected directly into the prostate lobes using needles. Rezum is a brand name and is the only brand capable of performing this technique at the time of writing. The steam causes the prostate cells to shrink and die over the five to seven days following treatment. This relieves obstruction and associated symptoms. A generic term that clinicians might use for this could be “steam ablation” or “convective radiofrequency water vapour thermotherapy”.

Table 9: Example of OPCS-4.10 procedure code for Rezum

Code	Code definition
M65.6	Endoscopic ablation of prostate using steam

7. UroLift

UroLift, which is a brand name, is an endoscopic operation where the prostate is stapled to reduce pressure on the bladder outlet; no tissue is excised. This may also be described as a prostatic urethral lift. Urolift is the only brand capable of performing this technique at the time of writing.

Table 10: Example of OPCS-4.10 procedure code for UroLift

Code	Code definition
M68.3	Endoscopic insertion of prosthesis to compress lobe of prostate

8. Aquablation of prostate

Also known as transurethral water jet ablation, Aquablation is a relatively new technique combining image guidance and robotics for the resection of prostatic tissue. A rigid cystoscope is inserted into the bladder under direct vision followed by the Aquablation hand piece which is then secured into position. A

transrectal ultrasound probe is then inserted to image and map the contours of the prostate. The series of coordinates generated by the imaging unit are then used by the robotic assisted device to direct the saline jets to the correct areas of affected tissue, turning them on and off as needed to remove the prostatic tissue.

Table 11: Example of OPCS-4.10 procedure code for water ablation

Code	Code definition
M65.8	Other specified endoscopic resection of outlet of male bladder
Y76.5	Robotic assisted minimal access approach to other body cavity
Y53.2	Approach to organ under ultrasonic control

9. Open prostatectomy (for benign disease)

Open prostatectomy, which is rarely performed for BOO, can be achieved via two different approaches, namely transvesical or retropubic. It tends to be the procedure of choice where the prostate weighs more than 100g (normal weight is 20g) – they can reach 300g in weight. It may also be performed where an open bladder procedure is being performed at the same time. As an alternative, some larger prostates can be treated using the HoLEP laser but this can be technically challenging.

Transvesical prostatectomy

This involves surgical excision of the prostate gland and is almost exclusively performed to treat bladder outflow obstruction in patients with very large prostate glands. An abdominal incision is made followed by an incision in the lower front part of the bladder to enable access to the prostate. The benign prostatic tissue is then enucleated (removed). This may also be called a suprapubic prostatectomy and may be performed as an open, laparoscopic or laparoscopic robot assisted procedure.

Table 12: Example of OPCS-4.10 procedure code for transvesical prostatectomy

Code	Code definition
M61.3	Transvesical prostatectomy

Retropubic Prostatectomy

In comparison to a transvesical approach via the bladder, a retropubic prostatectomy involves accessing the prostate directly with an incision across the prostate itself. Historically this was also known as a Millin Retropubic Prostatectomy, named after Terence Millin who first described the procedure in 1945.

Table 13: Example of OPCS-4.10 procedure code for Retropubic prostatectomy

Code	Code definition
M61.2	Retropubic prostatectomy

Summary of factors affecting procedure code assignment

The following factors will affect procedure code assignment:

- Method of prostatic tissue removal
- Tools used
- Method of approach
- Additional incision (cystostomy) to remove prostate pieces
- Placement of prosthesis (e.g. Urolift)

Summary of factors NOT affecting procedure code assignment

The following factors will **not** affect procedure code assignment:

- Monopolar and bipolar TURP are coded the same
- Vaporisation for haemostasis following bipolar TURP
- Different types of laser (code according to resection technique, e.g. enucleation and vaporisation)
- Morcellation of resected prostate pieces so that they can be removed from the bladder
- Diagnostic cystoscopy at the beginning of a male BOO procedure
- Irrigation at the end of the procedure
- Placement of a urethral catheter at the end of the procedure

Appendix

Getting It Right First Time (GIRFT) is a national programme designed to improve the treatment and care of patients through in-depth review of services, benchmarking, and presenting a data-driven evidence base to support change.

The programme undertakes clinically led reviews of specialties, combining wide-ranging data analysis with the input and professional knowledge of senior clinicians to examine how things are currently being done and how they could be improved.

Working to the principle that a patient should expect to receive equally timely and effective investigations, treatment, and outcomes wherever care is delivered, irrespective of who delivers that care, GIRFT aims to identify approaches from across the NHS that improve outcomes and patient experience, without the need for radical change or additional investment.

GIRFT is part of an aligned set of programmes within NHS England. The programme has the backing of the Royal Colleges and professional associations and has a significant and growing presence on the Model Health System (Model Hospital) portal, with its data-rich approach providing the evidence for hospitals to benchmark against expected standards of service and efficiency.

The NHS Digital Terminology and Classifications Delivery Service produce and publish the National Clinical Coding Standards in England for the WHO International Statistical Classification of Diseases (ICD-10) and UK OPCS-4 Classification of Interventions and Procedures (OPCS-4) to ensure compliance with these information standards. All Admitted Patient Care episodes, using the information in the patient's medical record, are coded using the current releases of the ICD-10 and OPCS-4 classifications and the National Clinical Coding Standards.

BAUS

The British Association of Urologists (BAUS) is a membership organisation and registered charity which promotes the highest standard in urology for the benefit of patients. 97% of all practising consultant urologists in the UK are members of BAUS.
The BAUS Audit Steering Group (ASG) provides leadership and strategic oversight across all data and audit activity within BAUS and works in partnership with national programmes for Quality Improvement such as GIRFT, NCIP and urological patient charities. It provides the clinical input into GIRFT coding guidance for urological procedures, to improve the accuracy of urology data underpinning Model Hospital and NCIP and promotes active engagement by clinicians with their Trust coding departments to improve urology coding locally as a collaborative venture.