URETEROSCOPY

Ureteroscopy is the internal telescopic examination of the ureter and kidney. It affords the best assessment of stones and disease affecting the lining of the upper urinary tract and may be vital before a urological diagnosis can be reached (diagnostic ureteroscopy). It may be combined with biopsy or simultaneous treatment of strictures, stones or tumours.
Ureteroscopy avoids some of the risks of open surgery and allows for a significantly shorter hospital stay and rapid recovery of normal function. It is performed under general anaesthetic, the telescope being passed into the ureter, via the urethra and bladder. Most patients go home either later on the day of surgery or the following day.
The normal ureter is narrow and may preclude ureteroscopy with standard surgical instruments. Prior JJ ureteric stent placement for 2 weeks or more typically achieves ureteric dilatation which may facilitate ureteroscopy and make this procedure safer.
It may also be necessary to leave a stent (a fine internal plastic tube that sits in the ureter between the kidney and bladder) following ureteroscopy, to drain urine, facilitate passage of stone fragments, prevent obstruction and assist ureteric healing or to facilitate later repeat ureteroscopy. A stent may remain in place for up to 6 months - it is vital that it is removed again, as kidney damage may result from a forgotten stent. Stent removal does not require general anaesthesia and can be performed simply as an office procedure. Stents are generally well tolerated, but may cause pain, bladder storage symptoms and blood in the urine.

WHAT TO DO BEFORE YOUR PROCEDURE:

- ensure laboratory tests are done > 48 hours prior to surgery, unless advised otherwise
- discontinue aspirin and other anticoagulants 1 week prior, other medications may also need to be stopped
- nothing to eat or drink from 6 hours prior to procedure - see Admission Booklet regarding diet restrictions
- you will be admitted to hospital on the day of surgery.
- you do not need to shave prior to surgery
- please ensure any recommended repeat imaging is done prior to surgery

WHAT HAPPENS IN HOSPITAL AFTER YOUR PROCEDURE:

- day 1: urethral catheter will be removed and discharge home
- frequency and urgency, and burning with voiding settles rapidly

WHAT HAPPENS AFTER YOU LEAVE HOSPITAL:

- recovery is reasonably quick; there is no restriction on driving or on normal activities, including sexual intercourse after discharge from hospital
- reinstate usual medications and increase fluid intake (<2 litres daily) for 2 weeks
- many patients experience occasional intermittent colicky flank pain for <4 days after ureteroscopy, and rarely this may occur intermittently for 2 weeks
- some haematuria (blood in the urine) is expected, occasionally with small clots, and this may also continue for a few days after ureteroscopy. It settles spontaneously with good fluid intake. More significant bleeding is rare.

WHAT CAN GO WRONG:

Although most cases proceed without particular difficulty and have excellent outcomes, surgical complications occur overall in 5% of patients. The ureter may be too narrow to allow the ureteroscope to pass, requiring stenting and delayed ureteroscopy. Stents cause discomfort, particularly with urination, and bleeding, both of which settle partially but incompletely over a few days.
The list below details complications recognised as common or serious, but this does not include the rare and extraordinary. Risk of death is approximately 0.03% in generally healthy patients.

AT THE TIME OF AND EARLY AFTER SURGERY:

- Failed procedure and placement JJ ureteric stent with a plan to return to ureteroscopy at a later date <5%
- Recurrent colic as detailed above, which may require readmission to hospital <1%
- Infection may require antibiotic treatment <3%, readmission to hospital <1%
- Patients with underlying bladder obstruction may develop urinary retention requiring catheterisation
- Ureteric perforation (<1%) : usually heals spontaneously and without further problem
- stone fragments may be extruded from the ureter but these generally do not cause further problems
- the procedure may have to be abandoned, stent placed and repeat ureteroscopy performed at a later date
- it may be necessary to drain the kidney by a nephrostomy tube, placed through the back directly into the kidney
- Ureteric avulsion (<0.1%) : conversion to open or laparoscopic surgery to repair the ureter, or nephrectomy
- Numbness or tingling in legs, genitalia and perineum is usually temporary
- Clots (DVT, PE), gas embolism
- Risk of death may be estimated using the nzRISK https://nzrisk.com on-line pre-operative calculator. It has been developed and validated for patients in New Zealand over the age of 18, to help patients and doctors balance benefits and risks of treatment.

LATER POTENTIAL COMPLICATIONS :

- Incomplete stone clearance
- Ureteric stricture