

Figure 3: Further care of the patient with neurogenic lower urinary tract dysfunction: management within an appropriate multi-disciplinary team

PERFORM INVASIVE URODYNAMIC INVESTIGATIONS IF INDICATED

- Video-urodynamic investigations are required in patients who are at high risk of upper urinary tract complications (e.g. spinal cord injury, myelomeningocele) and prior to performing surgical procedures.
- Do not carry out invasive urodynamic investigations (filling cystometry and pressure/flow studies) as a matter of routine in all neurogenic lower urinary tract dysfunction patients.

FORMULATE A LIST OF MANAGEMENT OPTIONS SUITABLE FOR THE INDIVIDUAL PATIENT

- Voluntary voiding in the patient with adequate preservation of bladder sensation and micturition that is under voluntary control.
- Intermittent catheterisation (carried out by the patient themselves).
- Containment of incontinence using either a penile sheath system or pads.
- Indwelling catheter (e.g. suprapubic catheter) with or without a catheter valve.
- Urinary diversion (e.g. ileal conduit) if other options are inappropriate or have failed.

**CONSIDER WHAT TREATMENTS ARE NEEDED TO OPTIMISE URINARY TRACT CARE –
SEE ALGORITHM ON TREATING SPECIFIC URODYNAMIC ABNORMALITIES**

- Some patients will require additional treatment in order to eliminate or minimise symptoms (e.g. a multiple sclerosis patient with difficulty with bladder emptying causing infections, a man with Parkinson's disease who can void voluntarily but has urgency and incontinence, a child with spina bifida who is wet despite using intermittent catheterisation).
- Some patients will have asymptomatic abnormalities that require treatment in order to protect kidney function.

**AGREE THE MANAGEMENT APPROACH WITH THE PATIENT,
CARERS AND FAMILY MEMBERS AS APPROPRIATE**

- Discuss possible risks (such as urinary tract stones, infections, bladder cancer) as appropriate and the symptoms that should be reported and acted on.
- Arrange training for the patient, carers and family members (e.g. intermittent catheterisation training, catheter care or penile sheath use).

MAKE ARRANGEMENTS FOR FOLLOW-UP AND CONTINUING CARE

- Patients at high risk of kidney complications (e.g. spinal cord injury and spina bifida patients) should be offered life-long renal surveillance.
- Patients with complex multi-disciplinary needs may require follow-up within a specialist team (e.g. in a neuro-rehabilitation unit or paediatric urology department).
- Provide details of who to contact and how to contact them in case of difficulties.