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Original Article

European Association of Urology Guidelines on Neuro-urology: Summary of the 2026 Update

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Abstract

Context: Neurological disorders frequently impair the lower urinary tract, sexual, and reproductive function and require lifelong, individualised management. This review summarises the latest update of the European Association of Urology (EAU) Guidelines on Neuro-Urology, highlighting refined terminology, a stronger patient-centred approach, and current diagnostic and therapeutic strategies.
Objective: To present a summary of the 2026 Neuro-Urology guideline updated using a standardised methodology to provide reproducible evidence for the management of neuro-urology.
Evidence acquisition: Recommendations are derived from the updated EAU Neuro-Urology Guidelines following structured evaluation of recent literature and expert panel consensus. Evidence levels, risk–benefit considerations, and patient perspectives informed the formulation of clinically oriented recommendations.
Evidence synthesis: Early risk stratification, urodynamic evaluation, and regular surveillance remain central to preventing complications. Conservative and pharmacological therapies are first-line treatments, whereas minimally invasive and surgical options should be individualised according to neurological status and patient preference. Updated sections reflect refined terminology, integration of patient perspectives, and expanded guidance on urinary tract infection management, neuromodulation, reconstructive strategies, and sexual and reproductive health. Evidence remains heterogeneous, and high-level comparative data are limited for several interventions.

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Conclusions: The updated Guidelines emphasise protection of upper urinary tract function, optimisation of bladder dynamics, and shared decision-making within multidisciplinary care. Integration of sexual health and structured long-term follow-up reflects the evolving needs of patients with neurological conditions.

ADVANCING PRACTICE

What does this study add?

This overview of the 2026 European Association of Urology (EAU) guidelines provides important insights into the diagnosis, evaluation, and management of patients with neuro-urological disorders. The recommendations emphasise the importance of structured assessment, including appropriate use of urodynamics to guide treatment decisions. The guidelines highlight the need for individualised management strategies aimed at protecting upper urinary tract function, improving quality of life, and preventing complications. The guidelines stress the importance of a multidisciplinary approach to the treatment of patients with neuro-urological conditions and the importance of shared decision-making.

Patient Summary

Neurological conditions can affect bladder control, sexuality, and fertility. This update outlines modern diagnostic and treatment strategies, emphasising individualised care and lifelong monitoring to reduce complications and improve quality of life.

1. Introduction

Disturbances of the neural control of the lower urinary tract (LUT) may result in storage and voiding dysfunction, urinary incontinence (UI), and upper urinary tract (UUT) damage. Clinical presentation and risk depend on the underlying neurological disease [1]. Management and follow-up must therefore be individualised and multidisciplinary. In this update, terminology has shifted from 'neuro-urological patients' to 'neurological patients with LUT dysfunction' to emphasise that LUT dysfunction is secondary to a broader neurological condition. The European Association of Urology (EAU) Guidelines on Neuro-Urology are regularly revised to reflect emerging evidence and clinical practice [2]. This summary outlines key updates in diagnostic evaluation, treatment, follow-up, and patient involvement in shared decision-making.

2. Evidence acquisition

This summary reflects the most recent update of the EAU Guidelines on Neuro-Urology. A structured literature search of MEDLINE, EMBASE, and the Cochrane Library included publications up to 1 May 2025, following EAU Guidelines methodology. A multidisciplinary panel reviewed the evidence and updated recommendations, incorporating patient representatives to strengthen guidance on quality of life (QoL) and shared decision-making. Recommendations were graded as strong or weak based on evidence quality, benefit-harm balance, and patient values [3].

3. Evidence synthesis

3.1. *Epidemiology, aetiology, and pathophysiology*

Neurological disorders affecting the central and peripheral nervous system may disrupt bladder storage and voiding. Dysfunction is largely determined by lesion level and extent. Suprapontine, spinal, and peripheral lesions may also impair bowel and sexual function. Prevalence and progression vary by disease and influence complication risk and QoL. The aetiologies and associated LUT manifestations are listed in the full text of the guidelines.

3.2. *Classification systems*

Definitions and classifications follow International Continence Society standards [4,5]. A practical classification system is provided in Fig. 1 [1].

3.3. *Diagnostic evaluation*

3.3.1. *Timing*

Early evaluation is essential in congenital and acquired disorders, as delayed assessment increases UUT risk [6–8]. Lifelong follow-up is recommended [9,10].

3.3.2. *History and bladder diaries*

History should include LUT, sexual, bowel, and neurological symptoms, comorbidities, medication, functional status, and prior interventions [11,12]. Bladder diaries document voiding, catheterisation, fluid intake, and incontinence [13,14].

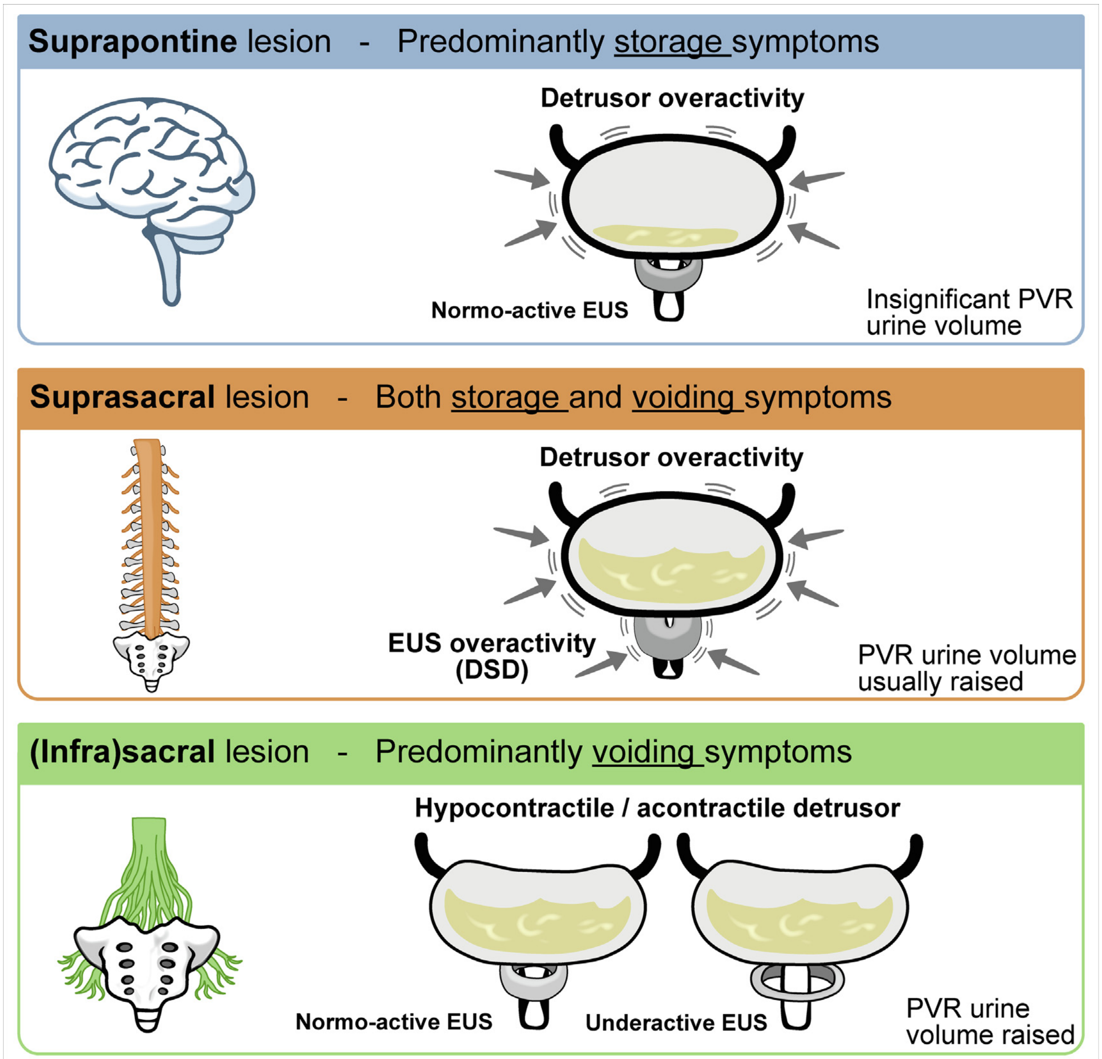

Fig. 1 – Schematic representation of lower urinary tract dysfunction patterns associated with neurological lesions at suprapontine, spinal (suprasacral), and sacral/infrasacral levels, showing typical changes in bladder activity and external urethral sphincter function. DSD = detrusor–sphincter-dyssynergia; EUS = external urethral sphincter; PVR = post-void residual.

3.3.3. QoL and questionnaires

Validated tools assess symptom burden and QoL. Condition-specific instruments include Qualiveen [15,16] and the Neurogenic Bladder Symptom Score (NBSS) [17,18]. Higher NBSS scores are associated with bladder management as the primary health concern [19]. Additional instruments such as QoL-BM [20] and MSISQ-15 [21] may be used in selected populations. Generic tools (eg, Short Form-36 [SF-36], SF-12, King's Health Questionnaire [KHQ]) may complement disease-specific questionnaires; no single instrument is universally recommended [22].

3.3.4. Examination and baseline tests

Neurological and urogenital examinations should assess sensory and motor function, reflexes, and pelvic floor integrity [1,23]. Baseline tests include urinalysis, blood chemistry, postvoid residual (PVR), and urinary tract imaging for risk stratification [24]. Autonomic dysreflexia (AD) must be considered in patients with spinal cord injury (SCI) at or above Th6, particularly during invasive testing [25–27]. Table 1 summarises recommendations for baseline evaluation.

3.3.5. Urodynamics and pelvic neurophysiology tests

Urodynamics remain essential, as symptoms alone may not reflect the underlying dysfunction [28]. Noninvasive tests such as free uroflowmetry and PVR provide an initial assessment of bladder emptying. Filling cystometry evaluates storage (capacity, compliance, and detrusor overactivity). Pressure-flow studies assess detrusor-outlet interaction [29–32]. Videourodynamics add anatomical detail and detect reflux to the UUT [33,34]. Early baseline urodynamics is recommended after SCI to identify parameters associated with risk to the UUT, and repeat testing may be required [35–37]. Continuous blood pressure monitoring is mandatory in patients at risk of AD. Pelvic neurophysiology testing may be considered when diagnostic uncertainty persists [38]. Table 2 provides a summary of recommendations for urodynamics and additional tests.

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Table 1 – Recommendations for baseline evaluation

Recommendations	Strength rating
Take an extensive general history, concentrating on past and present symptoms.	Strong
Take a specific history for each of the four mentioned functions: urinary, bowel, sexual, and neurological.	Strong
Pay special attention to the possible existence of alarm symptoms/signs (eg, pain, infection, haematuria, fever) that warrant further specific diagnosis.	Strong
Assess the quality of life when evaluating and treating patients with neurogenic lower urinary tract dysfunction.	Strong
Use available validated tools for urinary and bowel symptoms in patients with neurological conditions.	Strong
Use MSISQ-15 or MSISQ-19 to evaluate sexual function in patients with multiple sclerosis.	Strong
the disabilities of the individual patient when planning further investigations.	Strong
Describe the neurological status as completely as possible; sensations and reflexes in the urogenital area must all be tested.	Strong
Test the anal sphincter and pelvic floor functions.	Strong
Perform urinalysis, blood chemistry, bladder diary, postvoid residual, incontinence quantification, and urinary tract imaging as initial and routine evaluation.	Strong

Table 2 – Recommendations for urodynamics and pelvic neurophysiological tests

Recommendations	Strength rating
Perform a urodynamic investigation to detect and specify lower urinary tract function/dysfunction, and use the same-session repeat measurement, because it is crucial in clinical decision-making.	Strong
Noninvasive testing is mandatory before invasive urodynamics are planned.	Strong
Use video-urodynamics for invasive urodynamics in patients with neurological conditions. If this is not available, perform a filling cytometry, continuing into a pressure flow study.	Strong
Use a physiological filling rate and body-warm saline.	Strong
Perform blood pressure and heart rate monitoring during urodynamic investigation and other invasive procedures in patients at risk for autonomic dysreflexia.	Strong

3.3.6. *Renal function*

Patients with SCI or spina bifida [39] have an increased risk to the UUT from high detrusor pressure [40]. This risk appears greater than in patients with progressive conditions such as multiple sclerosis (MS) or Parkinson's disease (PD) [41]. Renal function and imaging are required at baseline and during follow-up, particularly in high-risk patients.

3.4. *Disease management*

Goals are UUT protection, functional improvement, and QoL. Shared decision-making should consider disability, caregiver support, technical complexity, and the patient's culture and background. Maintaining low detrusor pressure is central.

3.4.1. *Conservative treatment*

3.4.1.1. *Assisted emptying.* Credé, Valsalva, and reflex voiding may increase intravesical pressure and should only be used when urodynamics confirm safety [42,43]. Triggered reflex voiding may induce high detrusor pressures, particularly when outlet resistance is elevated, and may trigger AD in patients with lesions at or above Th6 [44,45]. External appliances may provide social continence; penile clamps should be avoided in cases of poor bladder compliance or neurogenic detrusor overactivity (NDO).

3.4.1.2. *Rehabilitation and neuromodulation.* Behavioural therapy, pelvic floor training, and bladder training may benefit selected patients (eg, PD, MS, SCI), although high-level evidence remains limited [46–51]. Telerehabilitation and adjunctive transcranial stimulation may provide additional benefit in selected cohorts [52–55]. Peripheral stimulation techniques [56–63] and sacral magnetic stimulation show potential benefits in small studies [48,64]. Intravesical electrostimulation [65–67], transcranial approaches, and electroacupuncture remain investigational [68–72]. These interventions should be considered adjunctive within multimodal care.

3.4.1.3. *Drug treatment.* Treatment should be guided by urodynamics, adverse-event profile, and patient preference.
3.4.1.3.1. *Drugs for storage symptoms.* Antimuscarinics remain the first-line treatment for NDO and improvement of bladder capacity and continence [73,74]. Higher doses [75,76] or combination therapy [77] may be used cautiously due to adverse effects, including cognitive risk [78,79]. Solifenacin has shown improvement in LUT symptoms with fewer adverse events (AEs) compared with trospium chloride in selected studies [80]. Beta-3 adrenergic receptor agonists such as mirabegron improve symptoms and QoL [81,82]; however, urodynamic effects are variable [83,84]. A standard dosage of 50 mg has been reported to be effective without worsening cognitive function and with a lower risk of AEs compared with antimuscarinics in patients with PD [85,86]. However, these findings may not be generalisable to all neurological populations [87]. Cardiovascular safety has been reported in placebo-controlled studies [83]. Evidence for vibegron is emerging [88,89]. Desmopressin may treat nocturnal polyuria but requires serum sodium monitoring [90]. Gabapentin may be used as adjunctive therapy [89]. Evidence for cannabinoids [91,92] and tadalafil [93] remains limited.

3.4.1.4. *Drugs for voiding symptoms.* Cholinergic agents such as bethanechol are rarely used [94]. α-blockers, including tamsulosin, naftopidil, and silodosin, may reduce outlet resistance, PVR, and AD in selected patients [95–97]. Evidence for pharmacological treatment of stress UI (SUI) is limited.

3.4.2. *Minimally invasive treatment*

Minimally invasive interventions may be considered when conservative and pharmacological strategies do not achieve safe bladder storage or efficient emptying. Treatment decisions should be guided by urodynamic findings, neurological status, and patient preference, with the aim of preserving low-pressure bladder function and preventing complications.

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3.4.2.1. Catheterisation. Intermittent catheterisation (IC) is widely used and guided by functional status, risk profile, and preference. Urinary tract infections (UTIs) appear similar between IC and indwelling catheters [98]. Hydrophilic catheters may reduce UTI risk [99], and appropriate education, optimisation of bladder management, and adequate catheterisation frequency are essential to reduce complications [100–102]. Indwelling catheters have higher long-term complication rates [103,104]. Intermittent clamping has not shown clinical benefit [105].

3.4.2.2. Intravesical drug treatment. Intravesical oxybutynin may be considered when oral therapy fails [106]. Vanilloids are rarely used [107].

3.4.2.3. Botulinum toxin injections in the bladder. Intradetrusor botulinum toxin A reduces UI and improves bladder capacity in refractory NDO, particularly in patients with SCI and MS [108–110]. The effectiveness of the various toxin preparations appears to be comparable [111]. Effects are temporary and may require IC [112,113]. Common AE include urinary retention, UTI, and haematuria [114].

3.4.2.4. Outlet procedures. Reduction of bladder outlet resistance may protect the UUT and improve bladder emptying but carries a risk of UI. Urethral sphincter botulinum toxin A is temporary and off-label [115,116]. Urethral bulking agents may benefit selected women with MS, but durability is limited [117].

3.4.3. Surgical treatments

3.4.3.1. Bladder-neck and urethral procedures for SUI. Urethral slings, particularly in women performing IC, provide durable continence outcomes [118,119], with synthetic slings showing favourable medium- to long-term results and low morbidity [120,121]. Autologous slings may be preferred when bladder augmentation is planned, although de novo LUT symptoms can occur [120]. Artificial urinary sphincters remain an effective treatment [122,123] in selected patients [120], though revision rates are higher in neurogenic populations. Adjustable continence devices may be considered in selected patients, although complication rates remain relatively high and long-term evidence is limited [124].

3.4.3.2. Endoscopic techniques for treatment of anatomic bladder outlet obstruction. Transurethral resection of the prostate may be performed in men with benign prostatic obstruction, taking sphincter function and the underlying neurological condition into account [125]. Urethrotomy may be used for urethral strictures [126], whereas urethroplasty tailored to individual lesions shows high failure rates in patients with neurological conditions [127]. Sphincterotomy is irreversible and mainly used in men using condom catheters. Urethral stents provide outcomes comparable to sphincterotomy, with shorter recovery but at higher costs and risk of complications [128].

3.4.3.3. Denervation, deafferentation, and sacral neuromodulation. Sacral anterior root stimulation (SARS) is reserved for highly selected complete lesions to induce detrusor contraction and enable poststimulus voiding [129,130]. Long-term outcomes are generally stable [131,132], although device-related complications and Charcot spinal arthropathy have been reported [133]. Sacral rhizotomy can reduce NDO but is now mainly performed as an adjunct to SARS [134]. Sacral neuromodulation may benefit selected patients, but evidence is limited [135–138].

3.4.3.4. Bladder augmentation. Auto-augmentation may be considered in selected patients to improve bladder compliance, although outcomes are variable. Intestinal bladder augmentation creates a low-pressure reservoir and reduces NDO [139], with reported benefits for renal function and QoL [140,141]. This approach should be reserved for refractory cases, as IC is frequently required, and long-term risks include perforation, stone formation, and metabolic complications, necessitating lifelong follow-up [142].

3.4.3.5. Urinary diversion. Urinary diversion may be considered when other strategies fail. Continent diversion is preferred to improve independence and QoL, although complication rates remain relevant [143]. Incontinent diversion, most commonly ileal conduit, may be used when catheterisation is not feasible or when severe LUT damage is present [144]. Concomitant cystectomy may be considered to prevent pyocystitis [145], and lifelong follow-up is required. Recommendations for the treatment of neuro-urological symptoms are listed in Table 3.

3.5. *Urinary tract infection*

3.5.1. Epidemiology, aetiology, and pathophysiology

UTI in patients with neurological conditions requires symptoms and laboratory findings; asymptomatic bacteriuria should not be treated [146,147]. Contributing factors include sex, bladder management and catheterisation, bowel dysfunction, and comorbidities such as poor glycaemic control [148–151]. UTI frequency appears similar between clean intermittent and indwelling catheterisation [98]. Presentation may be atypical, including new or worsening UI, fever, malaise, cloudy or foul-smelling urine, increased spasticity, or AD [152–155].

3.5.2. Diagnostic evaluation

Urinalysis and urine culture are required when UTI is suspected in patients with neurological conditions. Urine dipstick testing may help exclude infection but should not be used as a standalone diagnostic tool [156]. Microbiological testing is essential, as bacterial strains and resistance patterns in patients with neurological conditions often differ from those in the general population and should guide targeted therapy [157].

3.5.3. Disease management

Symptomatic UTIs should be carefully evaluated and treated with culture-guided antibiotic therapy, in line with the classification of localised versus systemic infection. Single-dose regimens are not recommended. Treatment duration is typically 5 to 7 d, or extended in severe cases [158]. Empirical therapy may be necessary in severe presentations, including fever, sepsis, or AD, and should be guided

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Table 3 – Treatment recommendations for neuro-urological symptoms

Recommendations	Strength rating
Deciding treatment option	
Consider a patient's culture and background when discussing treatment options.	Strong
Use a shared decision-making approach when discussing different treatment options with the patient.	Strong
Drug treatments	
Use antimuscarinics or beta-3 agonists for neurogenic overactive bladder.	Strong
Do not use beta-3 agonists with the intention of reducing urodynamically proven neurogenic detrusor overactivity.	Strong
Prescribe α-blockers to decrease bladder outlet resistance.	Strong
Do not prescribe parasympathomimetics for an underactive detrusor.	Strong
Screen and monitor serum sodium when using desmopressin to manage nocturnal polyuria	Strong
Catheterisation	
Use a shared decision-making approach when discussing intermittent or indwelling catheterisation for patients who are unable to empty their bladder.	Strong
Thoroughly instruct patients in the technique and risks of intermittent catheterisation.	Strong
Intravesical drug option	
Offer intravesical oxybutynin to neurogenic detrusor overactivity patients with poor tolerance to the oral route.	Strong
Intradetrusor Botulinum toxin A	
Use botulinum toxin A injections in the detrusor to reduce neurogenic detrusor overactivity if antimuscarinic therapy is ineffective.	Strong
Surgical treatments	
Offer bladder augmentation in low bladder compliance and/or refractory neurogenic detrusor overactivity.	Strong
Place an autologous urethral sling as first-line treatment in female patients with neurogenic SUI who are able to self-catheterise.	Strong
Place a synthetic urethral sling, as an alternative to autologous urethral slings, in selected female patients with neurogenic SUI who are able to self-catheterise.	Weak
Insert an artificial urinary sphincter in selected female patients with neurogenic SUI; however, patients should be referred to experienced centres for the procedure.	Weak
Insert an artificial urinary sphincter in male patients with neurogenic SUI.	Strong
Consider sacral neuromodulation in selected patients with neurological conditions.	Strong

SUI = stress urinary incontinence

by local resistance patterns and previous culture results [159]. In selected afebrile cases, initial nonantibiotic management may be considered [160].

3.5.3.1. Recurrent UTI. Recurrent UTIs often reflect suboptimal bladder management. High storage pressures, incomplete emptying, bladder stones, and indwelling catheters should be reassessed, and optimisation of bladder function, including treatment of NDO, is essential [157].

3.5.3.2. Prevention. UTI prevention focuses on optimising bladder management and removal of contributing factors. Hydrophilic catheters may reduce UTI risk in patients performing IC [152]. Routine use of cranberry products, probiotics, methenamine hippurate, L-methionine, or long-term antibiotic prophylaxis is not supported and may increase

Table 4 – Recommendations for the treatment of urinary tract infection

Recommendations	Strength rating
Do not use dipstick urine analysis to screen for UTI in patients with neurological conditions.	Strong
Do not screen for or treat asymptomatic bacteriuria in patients with neurological conditions and lower urinary tract dysfunction.	Strong
In patients with recurrent UTIs, optimise treatment of neurogenic lower urinary tract dysfunction and remove foreign bodies (eg, stones, indwelling catheters) from the urinary tract.	Strong
Consider bladder irrigation with drinking water to reduce catheter-associated UTIs.	Weak
Offer weekly cycling of antibiotic prophylaxis for select patients with SCI performing IC and recurrent UTIs.	Strong
Avoid the continuous use of long-term antibiotics for recurrent UTIs.	Strong
Individualise UTI prophylaxis in patients with neurogenic lower urinary tract dysfunction, as there is no optimal prophylactic measure available.	Strong

IC = intermittent catheterisation; SCI = spinal cord injury; UTI = urinary tract infection

antimicrobial resistance [161,162]. Weekly cycling antibiotic regimens may be considered only in selected patients with SCI [163]. Intravesical strategies, including gentamicin instillation [164], iodine washouts [165], or bladder irrigation with drinking or distilled water [166], may reduce symptomatic UTIs in selected cases, although evidence remains limited. No preventive strategy can be universally recommended, and management should be individualised. Table 4 summarises the recommendations for the treatment of UTI.

3.6. Sexual function and fertility

Sexual dysfunction and infertility are common and may be classified as primary (direct neurological damage), secondary (physical disability), or tertiary (psychosocial factors). The PLISSIT model provides a structured framework for counselling and stepwise management. Sexual dysfunction frequently coexists with bladder and bowel dysfunction, particularly in patients with MS, spina bifida (SB), and stroke [167–169].

3.6.1. Erectile dysfunction

3.6.1.1. Phosphodiesterase type 5 inhibitors. Phosphodiesterase type 5 inhibitors (PDE5Is) are first-line [170] and effective in patients with SCI, MS, SB, and PD [171–173]. Common AEs include headache and flushing, and hypotension may occur in patients with high-level SCI or autonomic dysfunction [174]. PDE5Is are contraindicated in patients using nitrate medication, including those treated for AD.

3.6.1.2. Drug therapy other than PDE5Is. Fampridine may improve erectile dysfunction (ED) in patients with SCI and MS but has a high discontinuation rate due to AEs [175]. Sublingual apomorphine shows limited efficacy and frequent side effects in populations with SCI [176]. Pergolide mesylate has demonstrated improvement in erectile func-

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tion scores in patients with PD during short- to mid-term follow-up [177].

3.6.1.3. *Mechanical devices.* Mechanical devices, including vacuum tumescence devices and penile constriction rings, may be effective in selected patients, although their use is less common than pharmacological therapy [178].

3.6.1.4. *Intracavernous injections and intraurethral application.* Intracavernous injections with vasoactive agents (eg, alprostadil, papaverine, phentolamine) are effective when oral therapy fails [179,180]. Intracavernous therapy is the preferred option in patients using nitrate medication or with contraindications to PDE5Is [181]. Intraurethral alprostadil application is less effective but may be considered as an alternative [182].

3.6.1.5. *Electrical stimulation.* Noninvasive electrical stimulation and sacral neuromodulation used for LUT dysfunction may have positive effects on sexual function. However, high-level evidence supporting these approaches remains limited.

3.6.1.6. *Penile prostheses.* Penile prosthesis implantation is an option in refractory cases but carries higher risks of complications [170,183].

3.6.2. *Male fertility*

Fertility impairment may result from ED, ejaculatory disorders, or reduced sperm quality [184]. Management includes sympathomimetic agents to treat retrograde ejaculation and semen retrieval techniques such as prostatic massage, vibrostimulation, or electroejaculation, with precautions for AD in patients with high-level SCI [185–187]. Oral midodrine may improve sperm retrieval during vibrostimulation in patients with SCI [188]. Disease-modifying therapy in MS does not appear to adversely affect pregnancy outcomes [189]. Surgical sperm retrieval may be considered when noninvasive methods fail, and assisted reproductive techniques such as intracytoplasmic sperm injection have improved biological fatherhood rates [190].

3.6.2.1. *Sperm quality and motility.* Clean IC has been associated with better semen quality than indwelling catheterisation or reflex voiding [191]. In patients with SCI, early post-traumatic changes include reduced vitality, impaired motility, and leucocytospermia [192], while long-term valproate therapy may negatively affect sperm parameters [193]. Vibrostimulation yields better motility than electroejaculation [194], and cryopreservation has not been shown to significantly improve fertility outcomes [195].

3.6.3. *Female sexuality*

Female sexual dysfunction is common but under-recognised, particularly in patients with SCI and MS. Many women remain sexually active after SCI and stroke, but report reduced satisfaction [196,197]. UI, spasticity, and mobility limitations represent major barriers to sexual function [24,198]. Management mainly addresses lubrication and supportive counselling. In patients with SCI, arousal and orgasm may still be achieved through stimulation of preserved erogenous pathways above the lesion level [199]. Sacral neuromodulation may improve sexual function, although supporting evidence remains limited [170].

Table 5 – Recommendations for the treatment of sexual (d) function and fertility

Recommendations	Strength rating
ED	
Prescribe oral phosphodiesterase type 5 inhibitors as first-line medical treatment in neurogenic ED.	Strong
Give intracavernous injections of vasoactive drugs (alone or in combination) as second-line medical treatment in neurogenic ED.	Strong
Offer mechanical devices such as vacuum devices and rings to patients with neurogenic ED.	Strong
Male fertility	
Perform vibrostimulation and transrectal electroejaculation for sperm retrieval in men with spinal cord injury.	Strong
Perform microsurgical epididymal sperm aspiration, testicular sperm extraction, and intracytoplasmic sperm injection after failed vibrostimulation and/or transrectal electroejaculation in men with spinal cord injury.	Strong
Counsel men with spinal cord injury at or above Th 6 and fertility clinics regarding the potentially life-threatening condition of autonomic dysreflexia.	Strong
Female sexuality and fertility	
Do not offer medical therapy for the treatment of neurogenic sexual dysfunction in women.	Strong
Take a multidisciplinary approach, tailored to the needs and preferences of individual patients in the management of fertility, pregnancy, and delivery in women with neurological diseases.	Strong

ED = erectile dysfunction

3.6.4. *Female fertility*

SCI may temporarily affect reproductive capacity, with amenorrhoea commonly occurring during the early postinjury phase [200]. Pregnancy in women with SCI carries increased risks, including spasticity, pressure sores, anaemia, AD, and higher Caesarean section rates [201–203]. Women with MS planning pregnancy should review disease-modifying therapy with their treating physician to optimise maternal and neurological outcomes [204]. Table 5 summarises the recommendations for the treatment of sexual dysfunction and fertility.

3.7. *Follow-up*

Neurological disorders require lifelong surveillance of LUT and UUT function [205]. Follow-up intervals should reflect disease stability and risk but generally should not exceed 1 to 2 yr, with closer monitoring in high-risk patients [206]. Surveillance includes imaging, laboratory testing, and repeated urodynamics when indicated [207]. Any significant clinical change warrants specialised reassessment. Structured multidisciplinary follow-up may improve long-term adherence [208,209]. Ongoing follow-up is also important given the increased risk of bladder cancer [210], and special attention is required during transition from paediatric to adult care [211]. Recommendations for follow-up are listed in Table 6.

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Table 6 – Recommendations for follow-up

Recommendations	Strength rating
Assess the upper urinary tract at regular intervals in high-risk patients.	Strong
Any significant clinical changes should instigate further, specialised investigation.	Strong
Perform urodynamic investigation as a mandatory baseline diagnostic intervention in high-risk patients at regular intervals.	Strong
Individualise follow-up programs according to the patient's risk and treatment plan	Strong

4. Discussion

Neurological disorders frequently impair urinary and sexual function. Management should prioritise UUT protection while optimising continence and QoL, favouring the least invasive effective option. Lifelong, individualised follow-up and shared decision-making are essential.

5. Conclusions

The 2026 EAU Guidelines on Neuro-Urology provide updated, evidence-based recommendations for diagnosis, treatment, and follow-up of patients with neurological conditions and LUT dysfunction, with increasing emphasis on patient-centred care and long-term safety.

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Study concept and design: Sartori, Keijzer, Ecclestone, Frings, Gallo, Gross, Hamid, Hentzen, Karsenty, Kessler, Musco, Padilla-Fernández, Panicker, Schouten, van der Vorm, Blok.
Acquisition of data: Schouten.
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