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Guidelines – Pelvic Pain

EAU Guidelines on Chronic Pelvic Pain

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Abstract

Context: These guidelines were prepared on behalf of the European Association of Urology (EAU) to help urologists assess the evidence-based management of chronic pelvic pain (CPP) and to incorporate the recommendations into their clinical practice.

Objective: To revise guidelines for the diagnosis, therapy, and follow-up of CPP patients.

Evidence acquisition: Guidelines were compiled by a working group and based on a systematic review of current literature using the PubMed database, with important papers reviewed for the 2003 EAU guidelines as a background. A panel of experts weighted the references.

Evidence synthesis: The full text of the guidelines is available through the EAU Central Office and the EAU Web site (www.uroweb.org). This article is a short version of the full guidelines text and summarises the main conclusions from the guidelines on the management of CPP.

Conclusions: A guidelines text is presented including chapters on chronic prostate pain and bladder pain syndromes, urethral pain, scrotal pain, pelvic pain in gynaecologic practice, neurogenic dysfunctions, the role of the pelvic floor and pudendal nerve, psychological factors, general treatment of CPP, nerve blocks, and neuromodulation. These guidelines have been drawn up to provide support in the management of the large and difficult group of patients suffering from CPP.

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1. Introduction

The European Association of Urology (EAU) Guideline Group for chronic pelvic pain (CPP) prepared these guidelines to help urologists assess the evidence-based management of CPP and to incorporate the recommendations into their clinical practice. This overview provides a summary of the recently updated version of the 2008 EAU guidelines on CPP, available in print and on the EAU Web site [1].

2. Evidence acquisition

The data underpinning this document were gathered through a systematic literature search carried out by the EAU Guideline Group. Articles were selected from Medline, relevant textbooks, and other guidance documents. The focus was on high-quality data, and care was taken to cover the time span between the previous text, dating back to 2003 [2] and today.

Whenever possible, the EAU working group has graded treatment recommendations using a three-grade system (A–C) [3] to help readers assess the validity of the recommendation.

3. Evidence synthesis

3.1. Diagnosis and classification

Chronic (also known as persistent) pain is associated with changes in the central nervous system (CNS) that may maintain the perception of pain in the absence of acute injury. These changes may also magnify perception so that nonpainful stimuli are perceived as painful (allodynia) and painful stimuli are perceived as more painful than expected (hyperalgesia). Core muscles (eg, pelvic muscles) may become hyperalgesic with multiple trigger points. Other organs may also become sensitive (eg, the uterus with dyspareunia and dysmenorrhoea or the bowel with irritable bowel symptoms).

The changes within the CNS occur throughout the whole neuroaxis. As a consequence, abnormal efferent activity may be the cause of functional changes (eg, irritable bowel symptoms) and structural changes (eg, neurogenic oedema found in some bladder pain syndromes [BPSs]). The central changes may also be responsible for some of the psychological changes, which also modify pain mechanisms in their own right.

Basic investigations must be undertaken to rule out “well-defined” pathologies. If the results are negative, a well-defined pathology is unlikely. Further investigations should be done only for specific indications (eg, for subdivision of a pain syndrome). The EAU guidelines avoid spurious diagnostic terms that are associated with inappropriate investigations, treatments, and patient expectations and, ultimately, with a worse prognostic outlook [4]. The classification represents the efforts of many groups, and further changes in this classification system are likely. Table 1 is not comprehensive and emphasises mainly the urologic pain syndromes.

3.2. Chronic pelvic pain terminology

Table 2 defines some terms used in chronic pelvic pain [1,2,5].

3.3. Classification of chronic pelvic pain syndromes

The EAU classification of 2004 has been updated to provide a classification related to investigation and further management of the pain syndromes. This allows for a possible overlap of mechanisms between different conditions. It also encourages recognition of overlapping symptoms and treatment by a multidisciplinary approach (Table 1) [1,2,5,6].

A physician using the classification in Table 1 should start on the left side of the table and proceed to the right only if he or she can confidently confirm the pain to be perceived in the appropriate system and organ. In many cases, it may not be possible to go further than labelling a condition as a *pelvic pain syndrome*. For example, in many cases previously described as *prostadynia*, it may not be possible to state categorically that the pain stems from the prostate and not from other sites (eg, pelvic floor muscles). Such cases are therefore labelled pelvic pain syndrome.

The European Society for the Study of IC/PBS (ESSIC) has recently defined the BPS/interstitial cystitis (IC) syndrome, supported by an international consensus editorial [7,8]. As with the EAU system, ESSIC excluded well-defined non-pelvic pain (confusable) conditions. ESSIC has further divided the BPS/IC syndrome according to the results of cystoscopy and biopsy (see Table 5) [8].

3.4. An algorithm for chronic pelvic pain diagnosis and treatment

The algorithm for diagnosing and treating CPP (Fig. 1) has been written to guide a physician through the process from diagnosis to management. A physician should follow steps 1 to 6 (Table 3) while referring to the correct column in the algorithm. According to clinical practice, the various pain syndromes are presented first, followed by general treatment options.

4. Conclusions

4.1. Prostate pain syndrome

Based on a more general definition (see Table 2), the term *prostate pain syndrome* (PPS) is used instead of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) term *chronic prostatitis/chronic pelvic pain syndrome*. PPS is persistent discomfort or pain in the pelvic region with sterile specimen cultures and either significant or insignificant white blood cell counts in prostate-specific specimens (ie, semen, expressed prostatic secretions, and urine collected after prostate massage) [9]. Because there are no clinically relevant diagnostic or therapeutic consequences arising from differentiating between inflammatory and noninflammatory subtypes, PPS can be regarded as one entity.

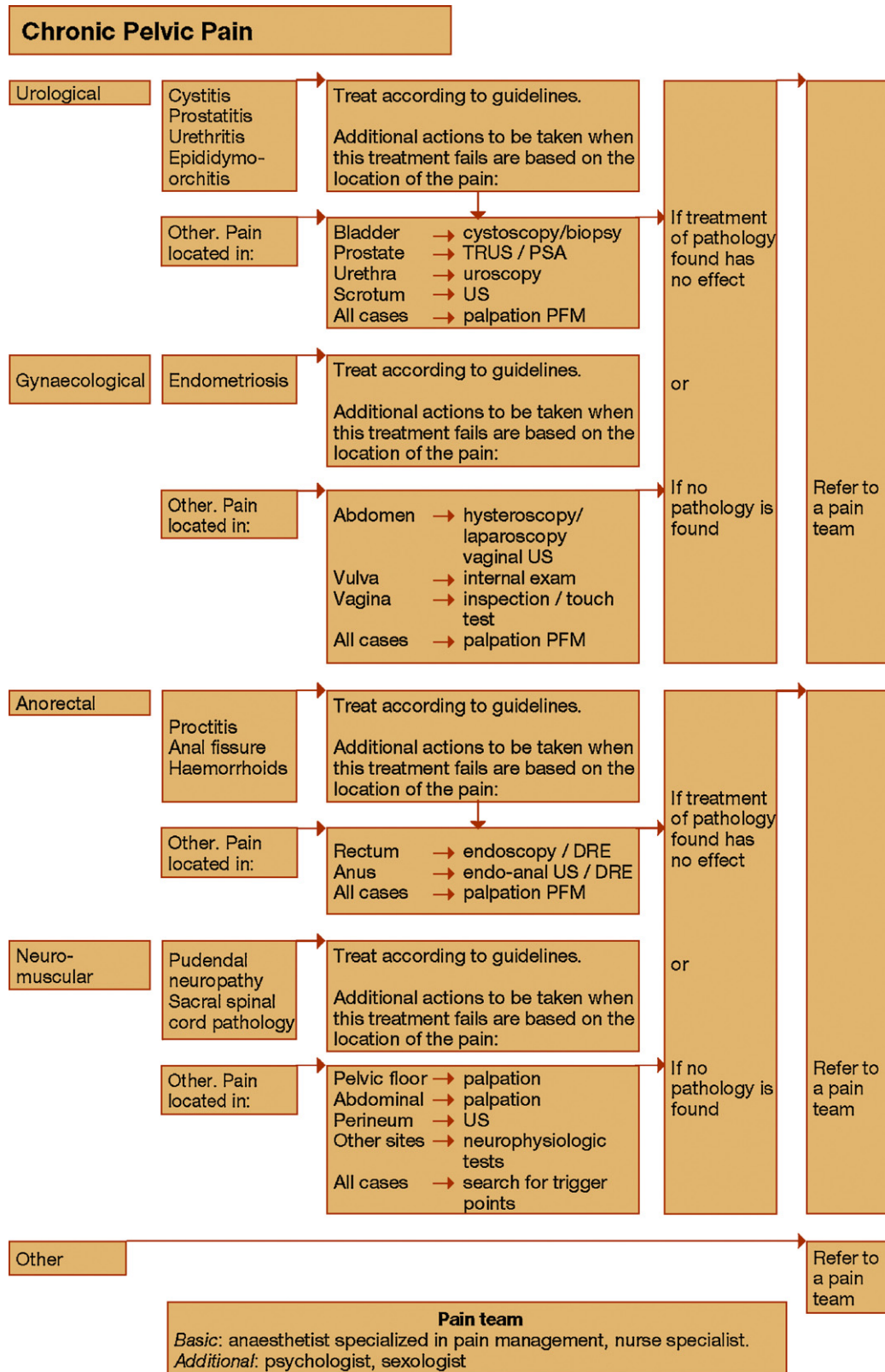


Fig. 1 – Algorithm for diagnosis and management of chronic pelvic pain (CPP). See the full text of the CPP guidelines for further explanation [1]. DRE = digital rectal examination; PFM = pelvic floor muscle; PSA = prostate-specific antigen; TRUS = transrectal ultrasound; US = ultrasound.

Table 2 – Definitions of chronic pelvic pain terms

Terminology	Description
Chronic pelvic pain	Nonmalignant pain perceived in structures related to the pelvis of both males and females. In the case of documented nociceptive pain that becomes chronic, pain must have been continuous or recurrent for at least 6 mo. If nonacute and central sensitisation pain mechanisms are well documented, the pain may be regarded as chronic, irrespective of the time period. In all cases, there are often associated negative cognitive, behavioural, sexual, and emotional consequences [1,2]. Chronic pelvic pain is subdivided into pelvic pain syndromes and non-pelvic pain syndromes.
Pelvic pain syndrome	Persistent or recurrent episodic pelvic pain associated with symptoms suggesting lower urinary tract, sexual, bowel, or gynaecological dysfunction. No proven infection or other obvious pathology [6].
Bladder pain syndrome	Suprapubic pain is related to bladder filling accompanied by other symptoms such as increased daytime and nighttime frequency. No proven urinary infection or other obvious pathology.
Prostate pain syndrome	Persistent or recurrent episodic prostate pain, associated with symptoms suggestive of urinary tract and/or sexual dysfunction. No proven infection or other obvious pathology [1,2]. Definition adapted from the NIH consensus definition and classification of prostatitis [5] and includes conditions described as “chronic pelvic pain syndrome.”
Scrotal pain syndrome	Persistent or recurrent episodic scrotal pain associated with symptoms suggestive of urinary tract or sexual dysfunction. No proven epididymoorchitis or other obvious pathology [6].
Pelvic floor muscle pain syndrome	Persistent or recurrent episodic pelvic floor pain with associated trigger points either related to the micturition cycle or associated with symptoms suggestive of urinary tract, bowel, or sexual dysfunction. No proven infection or other obvious pathology [1,2].

NIH = US National Institutes of Health.

Table 3 – Guide to using the algorithm in Figure 1 for diagnosis and management of chronic pelvic pain

Step	Action	Algorithm
1	Start by considering the organ system in which the symptoms appear to be primarily perceived	First column
2	“Well-defined” conditions, such as cystitis, should be diagnosed and treated according to national or international guidelines	Second column and upper part third column
3	When treatment has no effect on the pain, additional tests (eg, cystoscopy or ultrasound) should be performed	Lower part third column
4	When these tests reveal any pathology, it should be treated appropriately	Fourth column
5	If treatment has no effect, the patient should be referred to a pain team	Fifth column
6	If no well-defined condition is present or when no pathology is found by additional tests, the patient should also be referred to a pain team	Fifth column

4.1.1. Pathogenesis

The aetiology and pathophysiology of PPS remains a mystery, although central neurologic mechanisms probably play a role. Patients with PPS show no evidence of infection; they do not have urethritis, urogenital cancer, urethral stricture, or neurologic disease involving the bladder, and they do not exhibit any overt renal tract disease [9].

4.1.2. Diagnosis

PPS is a symptomatic diagnosis. It is diagnosed from a history of persistent genitourinary pain and an absence of

other lower urinary tract pathologies. The severity of disease, its progression, and treatment response can be assessed only by means of a validated symptom-scoring instrument [10,11], such as the US National Institutes of Health Prostatitis Symptom Index [12].

The gold-standard four-glass test for bacterial localisation [13] is too complex for use by practising urologists [9]. Diagnostic efficiency may be enhanced cost effectively by a simple screening procedure, that is, the two-glass test, or by pre- and postmassage test (PPMT) [14], with PPMT able to indicate the correct diagnosis in >96% of patients [15].

Table 4 – Treatment of prostate pain syndrome*

Drugs	Level of evidence	Grade of recommendation	Comment
α-Blockers	–	–	Not effective, according to recent large randomised controlled trial [16]
Antimicrobial therapy	3	B	Give quinolones if previously untreated (naive) only; reassess after 2–3 wk; duration 4–6 wk
Opioids	3	C	As part of multimodal therapy for treatment-refractory pain in collaboration with pain clinics
Nonsteroidal antiinflammatory drugs	1b	B	Long-term side-effects must be considered
5-α-Reductase inhibitors	1b	B	If benign prostatic hyperplasia is present
Phytotherapy	1b–3	B	
Biofeedback, relaxation exercise, lifestyle changes, massage therapy, chiropractor therapy, acupuncture, and meditation	2a–3	B	As supportive second-line therapies

* US National Institutes of Health Prostatitis Symptom Index.

Table 5 – European Society for the Study of IC/PBS classification of bladder pain syndrome based on cystoscopy with hydrodistension and biopsies*

Cystoscopy with hydrodistension					
Biopsy	Not done	Normal	Glomerulations (grade 2–3)	Hunner lesions, with/without glomerulations	
Not done	XX	1X	2X	3X	
Normal	XA	1A	2A	3A	
Inconclusive	XB	1B	2B	3B	
Positive†	XC	1C	2C	3C	

* From van de Merwe et al [8].
 † Histology showing inflammatory infiltrates and/or detrusor mastocytosis and/or granulation tissue and/or intrafascicular fibrosis.

4.1.3. Treatment

The unknown aetiology of PPS means treatment is often anecdotal. Most patients require multimodal treatment aimed at the main symptoms and considering comorbidities. Recent results from randomised controlled trials have led to some advances in the knowledge about different treatment options (Table 4) [16].

4.2. Bladder pain syndrome/interstitial cystitis

It is very important to realise that BPS/IC is a heterogeneous spectrum of disorders that are still poorly defined, and inflammation is an important feature in only a subset of patients. To include all patients with bladder pain, the terms *painful bladder syndrome* (PBS) and *bladder pain syndrome* have been suggested as more accurate terminology [6,8]. This assumes that IC represents a special type of chronic

inflammation of the bladder, whereas PBS or BPS refers to pain perceived in the bladder region. The term *bladder pain syndrome* (ie, BPS) is used in these guidelines.

4.2.1. Definition

An extremely wide variety of diagnostic criteria have been used because of the difficulty in defining IC (eg, the NIDDK consensus criteria in the late 1980 s [17]).

In 2004 and again in 2008, ESSIC suggested a standardised scheme of diagnostic criteria [8,18] to make it easier to compare different studies. BPS/IC should be diagnosed on the basis of symptoms of pain associated with the urinary bladder accompanied by at least one other symptom, such as daytime and/or nighttime urinary frequency. Confusable diseases should be excluded as the cause of symptoms. Cystoscopy with hydrodistension and biopsy may be indicated (Table 5) [8].

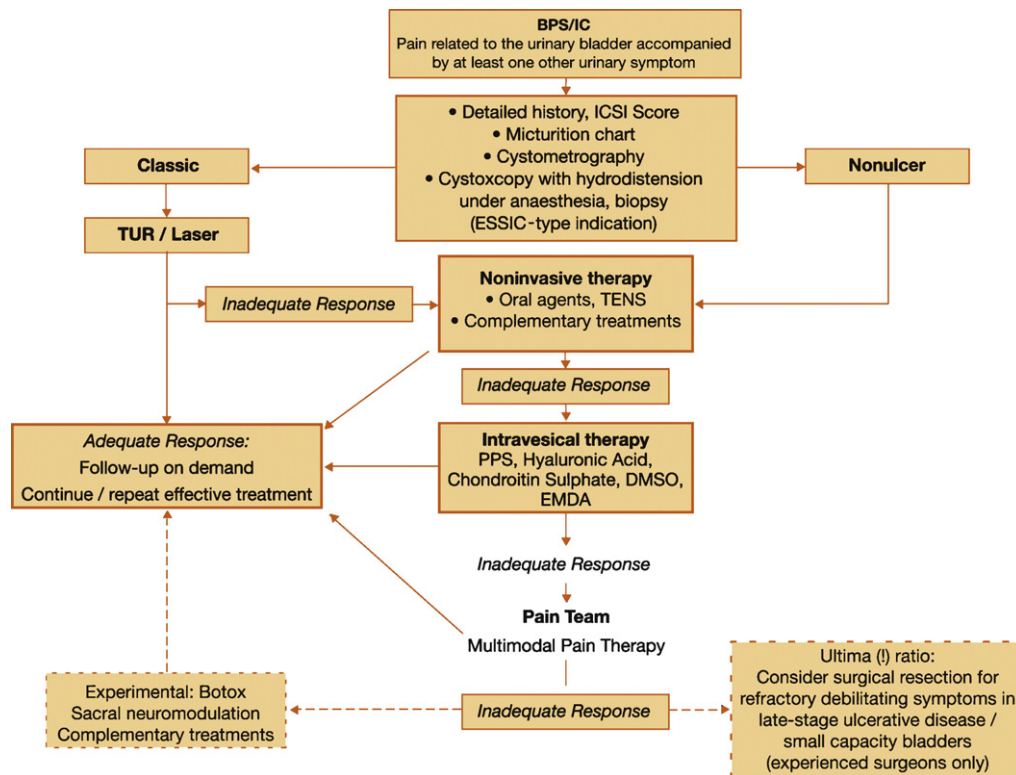


Fig. 2 – Flowchart for the diagnosis and therapy of bladder pain syndrome/interstitial cystitis. BPS = bladder pain syndrome; DMSO = dimethyl sulfoxide; EMDA = electromotive drug administration; ESSIC = European Society for the Study of IC/PBS; IC = interstitial cystitis; ICSI = Interstitial Cystitis Symptom Index; PPS = pentosan polysulfate sodium; TUR = transurethral resection.

4.2.2. Pathogenesis

There are many different hypotheses about the causes of BPS/IC, including infection, inflammation, autoimmune mechanisms, defects in the urothelial glycosaminoglycan layer, hypoxia, and central neurologic mechanisms [19].

4.2.3. Epidemiology

Reports of the prevalence of BPS/IC have varied tremendously, with an American review claiming that 20% of women may be affected [20]. In contrast, however, the physician-diagnosed incidence in Olmsted County (MN, USA) was extremely low at 1.1 of 100 000 people [21]. There is increasing evidence that BPS/IC may have a genetic component, with urgency/frequency problems more likely to be reported in female relatives of 35% of patients with BPS and 33% of patients with urethral syndrome [22]. An association has been reported between BPS and inflammatory bowel disease, systemic lupus erythematosus, Sjögren syndrome, irritable bowel syndrome, fibromyalgia, endometriosis, and panic disorders [23–26]. An excellent review has explored comorbidities of BPS/IC with other unexplained clinical conditions presented in the literature [27].

4.2.4. Diagnosis

BPS/IC is diagnosed using symptoms, examination, urine analysis, cystoscopy with hydrodistension, and biopsy (Fig. 2). Patients present with characteristic pain and urinary frequency, which is sometimes extreme and always includes nocturia. The character of the pain is the key symptom of the disease. The pain is related to the degree of

bladder filling, typically increasing with increasing bladder content. It is located suprapubically, sometimes radiating to the groins, vagina, rectum, or sacrum. Pain is relieved by voiding but soon returns [28–31].

The two IC subtypes have different clinical presentations and age distribution [32] and can be discriminated noninvasively [33]. The two subtypes respond differently to treatment [34–37] and express different histopathologic, immunologic, and neurobiologic features [19,38–43].

Diagnosis of IC may be supported by use of the potassium chloride bladder permeability test, symptom scores, and biologic markers.

4.2.5. Treatment

Tables 6 and 7 list recommendations for the treatment of BPS/IC.

4.3. Scrotal pain syndrome

A physical examination should always be done in patients with scrotal pain. Gentle palpation of each component of the scrotum is performed to search for masses and for painful spots. A digital rectal examination is done to look for prostate abnormalities and examine the pelvic floor muscles. Scrotal ultrasound has limited value in finding the cause of the pain [44]. Pain in the scrotum can be the result of trigger points in the pelvic floor but also in the lower abdominal musculature. In the case of scrotal pain syndrome, the evidence for surgery is limited. A multidisciplinary approach including physiotherapy is recommended.

Table 6 – Medical treatment of bladder pain syndrome/interstitial cystitis

Drug	Level of evidence	Grade of recommendation	Comment
Analgesics	2b	C	Limited to cases awaiting further treatment
Hydroxyzine	1b	A	Standard treatment, even though limited efficacy shown in RCT
Amitriptyline	1b	A	Standard treatment
PPS	1a	A	Standard treatment; data contradictory
Cyclosporin A	1b	A	RCT showed superior to PPS but with more adverse effects

IC = interstitial cystitis; PPS = pentosan polysulfate sodium; RCT = randomised controlled trial.

Table 7 – Intravesical, interventional, alternative, and surgical treatment of bladder pain syndrome/interstitial cystitis

Treatment	Level of evidence	Grade of recommendation	Comment
Intravesical PPS	1b	A	–
Intravesical hyaluronic acid	2b	B	–
Intravesical chondroitin sulphate	2b	B	–
Intravesical DMSO	1b	A	–
Bladder distension	3	C	–
Electromotive drug administration	3	B	–
Transurethral resection (coagulation and laser)	NA	NA	Hunner lesions only. See full text [1]
Nerve blockade/epidural pain pumps	3	C	For crisis intervention; affects pain only
Bladder training	3	B	Patients with little pain
Manual and physical therapy	3	B	–
Psychological therapy	3	B	–
Surgical treatment	NA	NA	Very variable data, ultima ratio, experienced surgeons only. See full text [1]

PPS = pentosan polysulfate sodium; DMSO = dimethyl sulfoxide; NA = type of evidence not applicable.

4.4. Urethral pain syndrome

Urethral pain syndrome is a poorly defined entity. Positive diagnostic signs, although sometimes lacking, are urethral tenderness or pain on palpation and an inflamed urethral mucosa found during endoscopy. Hypotheses about the aetiology include concealed infections of the periurethral glands or ducts and oestrogen deficiency. Others consider urethral syndrome to be a less severe form of “early” BPS/IC [22]. In clinical practice, the diagnosis of urethral pain syndrome is commonly given to patients who present with pain or discomfort in association with micturition (with or without frequency, nocturia, urgency, and urge incontinence) in the absence of evidence of urinary infection. The absence of urinary infection causes problems because the methods typically used to identify urinary infection are extremely insensitive. Dysuria is pain or discomfort experienced in association with micturition. It is important to remember that urethral pain syndrome often does not occur in isolation but rather is one facet of a chronic pain syndrome.

Treatment is very difficult, and there is no consensus on how to proceed. Traditionally, dilatation of the urethra followed by application of a cortisone-antibiotic ointment has been recommended, but there is no evidence to support this treatment. Various modalities including systemic antibiotics, α -blockers, and acupuncture as well as laser therapy have been tested in trials [45]. Management may require a multidisciplinary approach.

4.5. Pelvic pain in gynaecologic practice

Pelvic pain presenting to the gynaecologist relies on a full clinical history, examination, and appropriate investigations (eg, genital swabs, pelvic imaging, and diagnostic laparoscopy) to discover remediable causes and treat them using the most effective available therapies. However, the greatest therapeutic challenge is provided by the 30% of patients in whom no cause can be found [46].

The most common gynaecologic pain conditions are said to include dysmenorrhoea, pelvic infections, endometriosis, and adhesions. Dysmenorrhoea and endometriosis may benefit from hormonal therapy and, in some cases, specialised surgery [47,48]. Pelvic infections usually respond to antibiotic therapy, but if the chronicity of the condition persists, patients may need surgery to remove hydro- or pyosalpinges. Gynaecologic malignancies often present with symptoms akin to BPS and should be treated similarly.

4.6. Neurogenic conditions

When CPP is not explained by local pelvic pathology, a neurologic opinion should be sought to exclude any form of conus or sacral root pathology. When indicated, magnetic resonance imaging is the investigation of choice to show both neural tissue and surrounding structures. If all examinations and investigations fail to reveal an abnormality, the diagnosis is likely to be a focal pain syndrome (eg, pudendal nerve entrapment). Treatment for each condition is individually tailored.

4.7. Pelvic floor function and dysfunction

The pelvic floor has three functions: support, contraction, and relaxation. Pelvic floor dysfunction should be classified according to *The standardisation of terminology of pelvic floor muscle function and dysfunction*, published by the International Continence Society (ICS) [49]. As in all ICS standardisation documents, this reference is based on the triad of symptom, sign, and condition. Symptoms are what the patient tells you; signs are found by physical examination.

4.7.1. Classification

Contraction and relaxation of the pelvic floor muscles is assessed by palpation. Based on the results, the function of the pelvic floor muscles is classified as normal, overactive, underactive, or nonfunctioning.

4.7.2. Myofascial trigger points

Repeated or chronic muscular overload can activate trigger points in the muscle. Trigger points are defined as hyperirritable spots associated with a hypersensitive palpable nodule in a taut band within muscle [50].

Pain arising from trigger points is aggravated by specific movements and alleviated by certain positions. Patients know what activities and postures affect the pain. Patients with trigger points in their pelvic floor muscle sit down cautiously, often on one buttock [51]. Rising after a period of sitting causes pain. Pain is aggravated by pressure on the trigger point (eg, pain related to sexual intercourse). Pain also gets worse after sustained or repeated contractions (eg, pain related to voiding or defaecation). On physical examination, trigger points can be palpated and compression gives local and referred pain. Differential diagnosis includes an endometriotic nodule or a tumour.

In patients with CPP, trigger points are often found in muscles related to the pelvis such as the abdominal, gluteal, and piriformis muscles.

4.7.3. Therapy

Treating pelvic floor overactivity should be considered in the management of CPP [52]. A number of methods taught by specialised physiotherapists can be used to improve the function and coordination of the pelvic floor muscles.

4.8. Sexual dysfunction in women and men

Sexual dysfunction is classified as either hypoactive sexual desire or disorders of sexual desire, sexual arousal, orgasm, or sexual pain [53].

In men 60–70 yr of age, almost 60% were found to have erectile dysfunction to a greater or lesser extent [54]. But potency is not the only problem encountered. Many men also suffer trouble with desire, arousability, satisfaction, and ability to achieve orgasm. All of these factors become compounded when pain is a feature. The literature available on the effect of chronic urogenital pain on the male psychology is limited, despite the fact that urogenital pain is not uncommon. Indeed, the primary reason for attending a

urology clinic for men <50 yr of age is for urogenital pain [55].

Although it is recognised that chronic pain affects sexual function [56], there is little research on the effect of chronic urogenital pain on sexual function [56]. Despite the lack of published data, many men in a urogenital pain clinic admit to avoiding sex due to the four factors, outlined above, as a result of pain. Others avoid sex because sexual activity results in increased pain. The importance of sexual avoidance is medically significant to these men because it is enforced celibacy and not celibacy through choice.

Patients avoid seeking new relationships so that they do not have to face, among other factors, the embarrassment of having to discuss the problem. Established relationships can also break down as a consequence of this multifactorial condition. Unsurprisingly, sexual dysfunction heightens anger, frustration, and depression, all of which place a strain on a relationship. The partners of men with sexual dysfunction and depression often present with similar symptoms [57].

The urologist has a critical role not only in male sexual dysfunction but also in female sexual dysfunction (FSD) [58]. The prevalence of FSD has been estimated as between 25% and 63%, depending on the definition used and the population [59,60]. It is often a cause of pelvic floor dysfunction, commonly caused by childbirth in younger women and by menopause in older women [61–63]. Patients with neurologic disease have a higher prevalence of all types of sexual function disorder [64,65], although precise figures are not known.

Women with pain also avoid sexual contact for the same defined factors exhibited in men because it exacerbates the problem. Essentially, FSD is a multifactorial problem that may be exacerbated by chronic pain [66]. Interestingly, in an important paper by Heinberg et al, it is pain severity and site that explains variance in patients with symptoms, such as depression, physical disability and catastrophising, rather than the patient's genetic sex [67]. Irrespective of the site of the pain (pelvis or back) or the gender, patients were depressed equally, with higher pain scores associated with greater depression. Difficulty with coping (catastrophising) and disability were greater with back pain.

Treatment in both men and women with neurologic or nonneurologic disease needs to be individually tailored. The definitive cause needs to be determined and treated. Treatment in both genders should include psychology, pelvic floor exercises/training, electrical stimulation feed-

back, and cognitive therapy and pharmacotherapy, if required [68–70]. Pelvic floor physiotherapy should be performed while considering the core muscles as a whole, especially when pain is a contributory feature [71]. Both male and female sexual dysfunctions are difficult to treat, especially where pain is a significant component, and it is advocated that all couples be evaluated within the context of a multidisciplinary clinic setting. Male sexual dysfunction in a general context is discussed in the EAU guidelines on male sexual dysfunction [72].

4.9. Psychological factors in persistent/chronic pelvic pain

Psychological factors affect the development and maintenance of persistent pelvic pain, adjustment to pain, and the outcome of treatments. It is not simply pain that causes distress and loss of valued activities that are attributable to pain; it is also worries about damage, disease, and prolonged suffering, particularly when there is no clear diagnosis [73,74].

There is strong evidence for the involvement of cognitive and emotional processes in pain processing. The alternative model of somatisation/somatoform pain disorder lacks an evidence base but is widespread in lay beliefs and medical literature; however, the absence of significant physical signs is not evidence for substantial psychological causation [75].

Anxiety, depression, and sexual problems are common in CPP in women and should be addressed in assessment and treatment [76,77]. A history of sexual or physical abuse is fairly common, but it also occurs in other pain, physical, and psychological problems. Prospective studies [78,79] cast doubt on a causal link. The only studies in men identify depression associated with urologic symptoms [80]; anxiety and depression may lead to withdrawal from normal activities [81]. In both men and women, current sexual problems are likely [82].

4.9.1. Assessment of psychological factors

Although a psychologist (or equivalent) is not necessary for this level of assessment (Table 8), the clinician will be able to interpret the results better in liaison with a psychologist.

Direct questioning about the patient's view of what is wrong or what worries him or her is more help than anxiety questionnaires [83]. If the patient admits to depressed mood and attributes it to pain, psychologically based pain management may be required. Disclosure of

Table 8 – Psychological factors in the assessment of chronic pelvic pain

Assessment	Level of evidence	Grade of recommendation	Comment
Anxiety about cause of pain: Ask, "Are you worried about what might be causing your pain?"	1a	C	Studies of women only; men's anxieties not studied
Depression attributed to pain: Ask, "How has the pain affected your life?" Ask, "How does the pain make you feel emotionally?"	1a	C	Studies of women only; men's anxieties not studied
Multiple physical symptoms/general health	1a	C	–
History of sexual or physical abuse	1a	C	Current/recent abuse may be more important

Table 9 – Physical and psychological treatment in the management of chronic pelvic pain

Treatment	Level of evidence	Grade of recommendation	Comment
Tension reduction; relaxation, for pain reduction	1b	A	Relaxation with or without biofeedback with or without physical therapy; mainly male pelvic pain
Multidisciplinary pain management for well-being	(1a)	(A)	Pelvic pain patients treated with psychology-based pain management; few specific pelvic pain trials

Table 10 – Pharmacological treatment of chronic pelvic pain

Drug	Type of pain	Level of evidence	Grade of recommendation	Comment
Paracetamol	Somatic pain	1b	A	Benefit is limited and based on arthritic pain
COX-2 antagonists	–	1b	A	Avoid in patients with cardiovascular risk factors
NSAIDs	Dysmenorrhoea	1a	B	Better than placebo but unable to distinguish between different NSAIDs
Tricyclic antidepressants	Neuropathic pain	1a	A	–
	Pelvic pain	3	C	Evidence suggests pelvic pain is similar to neuropathic pain
Anticonvulsants Gabapentin	Neuropathic pain	1a	A	–
Opioids	Chronic nonmalignant pain	1a	A	Limited long-term data; should only be used by clinicians experienced in their use
	Neuropathic pain	1a	A	Benefit is probably clinically significant; caution with use, as above

COX = cyclooxygenase-2; NSAID = nonsteroidal antiinflammatory drug.

childhood physical and sexual abuse does not affect management of the pain. Any disclosure of *current* physical or sexual abuse should be referred immediately to appropriate services. All treatment should be evaluated for its impact on quality of life.

4.9.2. Psychological factors in treatment of pelvic pain

There are few treatment studies. Female pelvic pain shows a significant rate of spontaneous symptom remission in women over the years following presentation [84]. Integrating physical and psychosocial treatments is likely to produce the best results for both men and women (Table 9) [85].

4.10. General treatment of chronic pelvic pain

There is very little specific evidence for the role of analgesic and coanalgesic drugs in CPP. Because CPP is thought to be modulated by similar mechanisms to those of somatic, visceral, and neuropathic pain, the recommendations that follow were derived from the general chronic pain literature (Table 10).

4.10.1. Simple analgesics

Paracetamol should be considered on its own. It should be considered as an alternative to or given with nonsteroidal anti-inflammatory drugs (NSAIDs) because it is well tolerated with few side-effects.

There is very little evidence for NSAIDs to be used in the management of CPP. Most analgesic studies have investigated dysmenorrhoea, in which NSAIDs were found to be superior to placebo and possibly paracetamol [86].

4.10.2. Neuropathic analgesics

4.10.2.1. *Tricyclic antidepressants.* An animal study suggests that tricyclic antidepressants may have a role in cystitis [87]. If

there is a suggestion of nerve injury or central sensitisation, consider the algorithm in Fig. 3. A review has suggested that tricyclics are effective for neuropathic pain, with limited evidence for selective serotonin reuptake inhibitors and insufficient evidence for other antidepressants [88].

4.10.2.2. *Anticonvulsants.* Anticonvulsants have been used in pain management for many years. Little evidence supports the use of anticonvulsants in the management of genitourinary pain. However, they should be considered for possible neuropathic pain or central sensitisation. Anticonvulsants have no place in acute pain [89].

Gabapentin has been introduced for pain management [90]. It is said to have fewer serious side-effects compared with the older anticonvulsants. It is licensed in some countries for chronic neuropathic pain.

4.10.3. Opioids

It is generally accepted that opioids have a role in the management of chronic nonmalignant pain [91]. The use of opioids in urogenital pain is poorly defined. Their use in neuropathic pain remains equivocal, but a meta-analysis suggests clinically important benefits [92].

4.10.4. Nonpharmacologic treatment

4.10.4.1. *Nerve blocks.* Neural blockade for pain management is usually carried out by a consultant in pain medicine with an anaesthetic background. Procedures may be performed for diagnostic reasons and/or therapeutic benefit. Diagnostic blocks can be difficult to interpret because of the many mechanisms by which a block may be acting. All nerve blocks should be performed with appropriate attention to safety, including the presence of skilled support staff and appropriate monitoring and

Guidelines for the use of neuropathic analgesics:

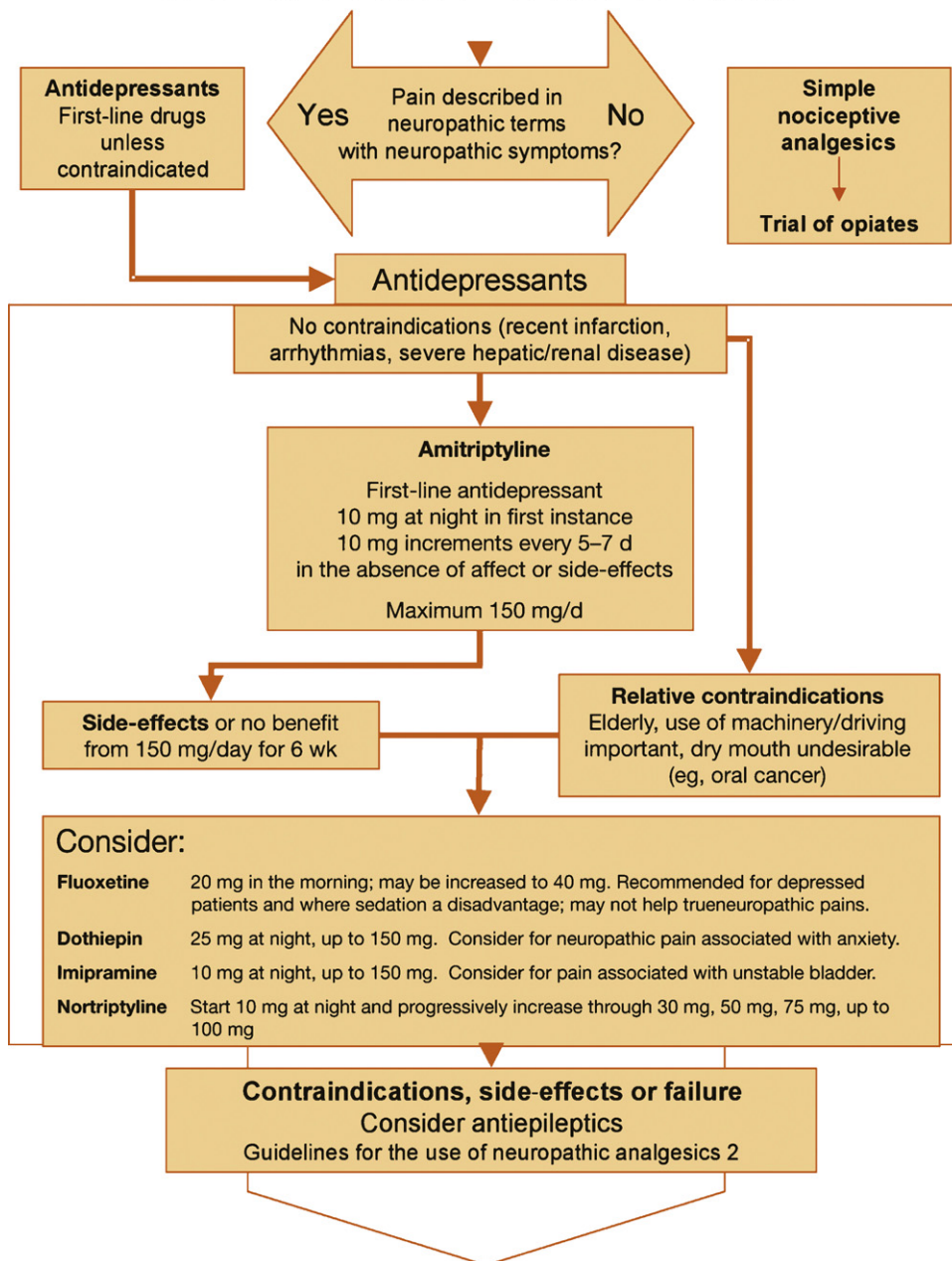


Fig. 3 – Guidelines for the use of neuropathic analgesics.

resuscitation equipment. It is essential that appropriate equipment be used for the procedure, including the correct block needles, nerve location devices, and imaging (ie, x-ray image intensifier, ultrasound, or computerised tomography).

4.10.4.2. *Suprapubic transcutaneous electrical nerve stimulation in bladder pain syndrome/interstitial cystitis.* Observations are scant. Current experience is based on open studies. In the largest study published to date of suprapubic transcutaneous electrical nerve stimulation (TENS) in 60 patients (33 patients with classic IC and 27 with nonulcer disease)

[35], 54% of patients with classic IC were helped by TENS. Less favourable results were obtained in nonulcer IC.

It is difficult to assess the efficacy of TENS in BPS/IC with accuracy. Controlled studies are difficult to design because treatment requires the administration of high-intensity stimulation at specific sites over a very long period of time.

4.10.4.3. *Sacral neuromodulation in pelvic pain syndromes.* Neuropathic pain and complex regional pain syndromes have been treated successfully with neurostimulation applied to dorsal columns and peripheral nerves [93]. There may be a role for neuromodulation in CPP.

4.10.4.4. *Botulinum toxin*. Recent data suggest that botulinum toxin has a role not only in overactive detrusor dysfunctions but also in bladder pain [94,95].

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Study concept and design: Fall, Baranowski, Elneil, Engeler, Hughes, Messelink, Oberpenning, Williams.

Acquisition of data: Fall, Baranowski, Elneil, Engeler, Hughes, Messelink, Oberpenning, Williams.

Analysis and interpretation of data: Fall, Baranowski, Elneil, Engeler, Hughes, Messelink, Oberpenning, Williams.

Drafting of the manuscript: Fall, Baranowski, Elneil, Engeler, Hughes, Messelink, Oberpenning, Williams.

Critical revision of the manuscript for important intellectual content: Fall, Baranowski, Elneil, Engeler, Hughes, Messelink, Oberpenning, Williams.

Statistical analysis: Fall, Baranowski, Elneil, Engeler, Hughes, Messelink, Oberpenning, Williams.

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