

Recommendations from the EAU Management of Non-neurogenic Male LUTS Guidelines Panel applicable during the COVID-19 pandemic

Diagnosis				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
	<ul style="list-style-type: none"> Diagnostic evaluation of new patients with LUTS 		<ul style="list-style-type: none"> Suspected Renal Impairment Suspected oncological causes of LUTS 	
Level of evidence	Expert advice		Expert advice	
COVID-recommendation	Defer - Remote assessment may be possible depending on local resources and capacity.		Prioritise the investigation of LUTS when renal impairment and/or oncological causes are suspected.	
Treatment				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
	<ul style="list-style-type: none"> Conservative and pharmacological management of new patients with LUTS Surgical Management of male LUTS 	<ul style="list-style-type: none"> Surgical Management of patients with urinary retention 		
Level of evidence	Expert advice	Expert advice		
COVID-recommendation	If capacity allows then continue conservative and pharmacological management	Prioritise patients in retention as there is a significant risk of infection due to the presence of a		

	<p>of male LUTS including nocturia, as normal.</p> <p>Prolong the use of conservative and pharmacological management options where possible until after the outbreak has been controlled.</p> <p>In the interim period use 5α-reductase inhibitors (5-ARIs) as monotherapy or in combination in men who have moderate-to-severe LUTS and an increased risk of disease progression.</p> <p>Delay initiation of desmopressin for the management of nocturia due to nocturnal polyuria where possible to avoid need for resource heavy follow-up.</p> <p>Delay surgical management of patients with moderate-to-severe LUTS depending on local resources and capacity.</p>	<p>catheter and the need to attend hospital for regular changing of the catheter. Alternatively instruct patients to do clean intermittent catheterisation.</p>		
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Follow up

Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
Follow-up	<ul style="list-style-type: none"> Patients under treatment 	<ul style="list-style-type: none"> Patients who have recently 	<ul style="list-style-type: none"> Patients who are taking 	<ul style="list-style-type: none"> Patients who have begun

	who had at least one FU visit before	begun medical treatment and had no previous FU visit	desmopressin	taking desmopressin
Level of evidence	Expert advice		Expert advice	Expert advice
COVID-recommendation	Defer follow-up of patients under treatment who had at least one FU visit before Remote follow up may be possible depending on local resources and capacity.	Assess treatment efficacy and safety in patients who have recently begun medical treatment and had no previous FU visit Remote follow up may be possible depending on local resources and capacity.	Follow-up patients receiving desmopressin for serum sodium measurement. This can be done in primary care where possible.	In patients who have begun taking desmopressin, measure serum sodium concentration at day three and seven and after one month.
General considerations				
<ol style="list-style-type: none"> 1) If capacity allows then remote consultations can proceed utilising all of the current recommendations. 2) Symptom scores and bladder diaries can be (e)-mailed out to patients. 3) Urodynamic investigation should be deferred. 4) If capacity allows then resources from primary care can be used. 				

Recommendations from the EAU Urinary Incontinence Guidelines Panel applicable during the COVID-19 pandemic

Diagnosis				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
Diagnostic Evaluation	<ul style="list-style-type: none"> Investigation of urinary incontinence in the non-neuropathic patient. Exclude urinary tract infection (UTI) as a cause of <i>de novo</i> urinary incontinence. 		<ul style="list-style-type: none"> Suspected oncological causes of urinary incontinence. 	
Level of evidence	Expert advice		Expert advice	
COVID-recommendation	Defer - Exclusion of UTI could be done in primary care if capacity allows.		Prioritise investigation of suspected cancer e.g. malignant urinary tract fistula.	
Treatment				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
Conservative management	<ul style="list-style-type: none"> Lifestyle modification and fluid management. Management of associated conditions. Provision of containment products. Pelvic Floor Muscle Training. Electrical / Magnetic Stimulation. 			

Level of evidence	Expert advice			
COVID-recommendation	Defer - If capacity allows then written information can be given to patients or advice given to primary care colleagues regarding medication adjustment, bowel management, provision of containment products, weight loss, fluid management, prompted voiding and bladder training.			
Pharmacotherapy	<ul style="list-style-type: none"> • Pharmacotherapy for urge urinary incontinence or stress urinary incontinence. • Pharmacotherapy for post-prostatectomy incontinence. • Review of medication efficacy. 			
Level of evidence	Expert advice			
COVID-recommendation	<p>Defer - If capacity allows for remote symptom assessment and pharmacotherapy is felt to be appropriate then advice regarding prescribing can be given to primary care colleagues.</p> <p>Do not recommend pharmacological treatments that require monitoring e.g. Desmopressin.</p>			
Surgical Treatment	<ul style="list-style-type: none"> • Surgical treatment of stress urinary incontinence or stress 		<ul style="list-style-type: none"> • Surgical treatment of urinary tract fistulae where 	

	<p>predominant mixed incontinence.</p> <ul style="list-style-type: none"> • Surgical treatment of urge urinary incontinence or urge predominant mixed Incontinence. • Surgical treatment of urethral diverticula. • Surgical treatment of post-prostatectomy incontinence. • Surgical treatment of non-obstetric urinary tract fistulae. 		<p>oncological treatment such as systemic chemotherapy or intra-cavity radiotherapy can only proceed if fistula is closed.</p>	
Level of evidence	Expert advice			
COVID-recommendation	Defer		Consider early fistula repair on a case-by-case basis	
Follow up				
	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
	<ul style="list-style-type: none"> • Follow-up of patients with Urinary Incontinence. 		<ul style="list-style-type: none"> • Patients who are taking desmopressin. 	<ul style="list-style-type: none"> • Patients who have recently commenced taking desmopressin.
Level of evidence	Expert advice		Expert advice	Expert advice
COVID-recommendation	Defer		Follow-up patients receiving desmopressin for serum sodium measurement. This can be done in primary care where possible.	In patients who have begun taking desmopressin, measure serum sodium concentration at day three and seven and after one month
General Considerations				
1) If capacity allows then remote consultations can proceed utilising all of the current recommendations.				

- 2) Symptom scores and bladder diaries can be (e)-mailed out to patients.
- 3) Urodynamic investigation including uroflowmetry, cystometrogram, pressure-flow studies and supplementary investigations such as pad testing should be deferred.
- 4) Imaging of the urinary tract is not recommended in the evaluation of patients with incontinence.
- 5) If capacity allows then resources from primary care can be used such as for monitoring of blood tests.
- 6) Remote follow-up of existing patients with urinary incontinence is recommended only if capacity allows.

Recommendations from the EAU Neuro-urology Guidelines Panel applicable during the COVID-19 pandemic

Diagnosis				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
	<ul style="list-style-type: none"> • Imaging 		<ul style="list-style-type: none"> • Suspected Progressive Renal Impairment 	<ul style="list-style-type: none"> • Suspected Sepsis
Level of evidence	Expert advice		Expert advice	Expert advice
COVID-recommendation	All routine investigations including blood tests and ultrasound scans should be postponed EXCEPT where they need to be undertaken for patients with urosepsis requiring hospitalisation or in patients going into renal failure.		Prioritise the investigation and treatment – assess on a case-by-case basis.	Emergency treatment according to local sepsis protocols.
Treatment				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
	<ul style="list-style-type: none"> • Medical Treatment • Invasive procedures • Surgical treatment 			<ul style="list-style-type: none"> • Blocked catheter
Level of evidence	Expert advice	Expert advice		Expert advice

COVID-recommendation	Defer hospital attendance. Adjustments to medications may be carried out via telephone or video consultation All routine invasive procedures should be postponed including urodynamic studies All elective surgical treatment should be postponed. These patients should be managed with medications and other therapies including catheterisation for the duration of the pandemic.			Instruction in catheter unblocking to patients and their relatives may be considered; however, patients who have blocked catheters must be seen and managed on an urgent basis to avoid potentially serious complications like autonomic dysreflexia.
Follow up				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
	<ul style="list-style-type: none"> Hospital Follow-up 			
Level of evidence	Expert advice			
COVID-recommendation	Defer - Telephone clinics should be undertaken to try to pick up any serious issues ensuring that only the patients who need urgent attention are brought to the hospital.			

General considerations

The aim is to keep neuro-uological patients out of the hospital environment as much as possible. A significant proportion would be considered as a high-risk group in the current circumstances. However, virtual clinics could be undertaken to pick up urgent issues and allow them to be dealt with in the most safe and effective manner. It is imperative to follow the local protocols and guidelines in the context of locally available resources.

Recommendations from the EAU Renal Transplantation Guidelines Panel applicable during the COVID-19 pandemic

Renal Transplantation				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
	<ul style="list-style-type: none"> • Non-urgent renal transplantation with living donor • Renal transplantations with complex medical, surgical and immunological situations (e.g. desensitisation protocols, presence of donor specific antibodies), that require increased resource use, prolonged hospital stay, and/or more intense immunosuppression (e.g. Anti-thymocyte globulin [ATG] induction). 	<ul style="list-style-type: none"> • Standard candidate to renal transplantation with expected long waiting time with deceased donor e.g. having a perfect full match kidney offered. 	<ul style="list-style-type: none"> • Combined transplants (Heart and kidney, Liver and Kidney). 	<ul style="list-style-type: none"> • Urgent dialysis-access problems
Level of evidence	Expert advice	Expert advice	Expert advice	Expert advice
COVID-recommendation	Defer	Case-by-case discussion	Perform Renal transplantation	Perform renal Transplantation
General considerations for renal transplantation in individual centres				
<ol style="list-style-type: none"> 1) The Global System situation and recommendations (e.g. WHO, Euro-Transplant recommendations). 2) The National System situation and recommendations for renal transplantation. 3) The Local Health Care System situation and recommendations renal transplantation. 				

- 4) A high level and complex interdisciplinary integrated system is required for successful kidney transplantation. Resources needed for renal transplantation may take away resources (e.g. blood units, emergency ORs, health care personnel) from other emergency situations both at the time of renal transplantation and over the following days and weeks after renal transplantation.
- 5) Important complex consent issues exist for renal transplantation in the era of COVID-19. This applies to both transplant recipients and potential living donors and must be fully explored and carefully documented.
- 6) For renal transplantation continue to use standard immunosuppression according to guidelines, try to avoid experimental or very potent immunosuppression such as ATG.

Testing of donor's for SARS-CoV-2

No clear recommendation can be stated on the necessity to test a potential organ donor for SARS-CoV-2; however, the Panel have reached consensus on the following statements:

- 1) Evaluation of the risk of exposure to SARS-CoV-2: medical history and potential contacts with people with proven COVID-19 over the last 28 days.
- 2) One negative nucleic acid test (NAT) for the identification of SARS-CoV-2 performed on a naso- and oropharyngeal swab. If the risk analysis favours organ retrieval and SARS-CoV-2 NAT is negative, then organ retrieval can be done according to local guidelines and regulations.
- 3) If NAT for SARS-CoV-2 is positive then patient and medical staff should be informed of infectious risk and the kidney be possibly discarded.

Follow up

Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm (decrease in renal function, rejection, loss of renal transplant, death) very unlikely if postponed 6 months	Clinical harm (decrease in renal function, rejection, loss of renal transplant, death) is possible as recipients are extremely vulnerable	Clinical harm (loss of renal function, loss of renal transplant, rejection, death) very likely if postponed	Life and/or renal transplant threatening situation
Level of evidence	Expert advice	Expert advice	Expert advice	Expert Advice
COVID-recommendation	Defer by 6 months	Consultation based on a case by case discussion	Hospitalisation in emergency	Hospitalisation in emergency
	For all stable patients with overall good general health and stable renal transplant function: <ul style="list-style-type: none"> • Visits to hospital should be minimised and possibly spaced or postponed. Telephone 	Renal transplant recipients with suspected COVID-19. <ul style="list-style-type: none"> • Renal transplanted patients with fever and/or COVID-19 symptoms should call their appropriately 	For surgical or immunological complications of renal transplant: <ul style="list-style-type: none"> • The safest, fastest and most minimally invasive appropriate treatment should be performed 	Life threatening situations (e.g. fungal transplant renal artery aneurysm) should follow standard of care treatment pathways.

	<p>and video consultations are instead recommended.</p> <ul style="list-style-type: none"> • Continue to use standard immunosuppression according to established protocols. 	<p>designated hospital and avoid general emergency units where possible.</p>	<p>(e.g. nephrostomy tube placement instead of ureteral re-implantation), allowing postponement of definitive treatment to later date post-COVID-19.</p> <ul style="list-style-type: none"> • In case of suspected graft rejection, diagnosis and treatment should follow current standard guidelines, a graft biopsy is deemed safe in case of suspected acute rejection in order to make correct diagnosis before intensifying immunosuppression. 	

Recommendations from the EAU Urolithiasis Guidelines Panel applicable during the COVID-19 pandemic

Diagnosis				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendations				
Acute flank pain - Imaging			Ultrasound (US) followed by non-contrast enhanced computer tomography (NCCT) weighting clinical situation and US findings; alternative Kidney-Ureter-Bladder (KUB) radiography (in known radiopaque stone formers).	<ul style="list-style-type: none"> • US, followed by NCCT with fever, suspected urosepsis or solitary kidney, and when diagnosis is doubtful. • When uncertain cause Thorax/Abdomen/Pelvic computed tomography scan (to rule out Covid-19 pneumonia at the same time).
Acute flank pain - Laboratory examinations			<ul style="list-style-type: none"> • Spot urine dipstick, infection possible → urinary culture. • Blood tests depending on clinical situation and imaging findings. 	<ul style="list-style-type: none"> • Spot urine dipstick-test and urine culture. • With fever basic blood test incl. coagulation-test. • Covid-19 swap or screening (as per local / national requirements)
Suspected asymptomatic renal stone (US) - Imaging	Small stone/lower pole: NCCT / Kidney-Ureter-Bladder radiography, and/or contrast study if stone removal is planned.	Large stone burden, risk of obstruction or with dilatation at US: NCCT.		

Metabolic evaluation	Perform stone analysis in first-time stone formers using a valid procedure. Postpone complete metabolic evaluation.			
General considerations				
Any diagnostic measures with low or intermediate priority must be balanced with the potential therapeutic consequence and risk of Covid-19 transmission.				
Treatment				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed > 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendations				
Sepsis due to obstructing stones, anuria				Urgent decompression of the collecting system (PCN or stent*).
Renal insufficiency (renal failure, bilateral obstruction, solitary kidney).				Urgent decompression or endourologic stone removal.
Acute flank pain				Pain relief (see general considerations below).
Obstructing / symptomatic ureteral stone not suitable for MET			Interventional treatment (<i>in situ</i> - SWL, URS or decompression*).	
Non-obstructing ureteral stone		<ul style="list-style-type: none"> • Medical expulsive therapy. • Interventional stone removal or JJ placement. 		
Renal stones causing intermittent obstruction		Interventional stone removal or JJ placement.		
Renal stone with recurrent infection and obstruction,			First decompression, than interventional stone removal	

partial or complete staghorn stones			as early as possible.	
Others, asymptomatic / oligosymptomatic renal stones	Interventional stone removal.			
Indwelling DJ-stent due to stone	No/low JJ morbidity: Interventional stone removal as soon as situation allows.	Pain/Symptoms due to JJ: patients should receive higher priority.		
Notes				
*Choice of decompression must include consideration of the possibilities for outside procedures or at bedside, with use of local anaesthesia thus avoiding the necessity of admission to the ward and involvement of an anaesthetist, sparing ventilators AND considerations on future therapeutic time lines for definitive stone treatment during pandemic. Stents might be preferred due to high risk of accidentally removing/dislodging a pcN and possible long-wait until definitive stone treatment can be carried out. In the short-term, preferably use stents with a string for self-removal in order to reduce outpatient visits.				
General considerations				
Acute treatment of a patient with renal colic				
<ol style="list-style-type: none"> 1) In principle, the same considerations as mentioned in the EAU-Guidelines on Urolithiasis apply, in particular immediate pain relief in patients with an acute stone episode. However, some evidence exists of a link between NSAIDs (Ibuprofen) and both respiratory and cardiovascular adverse effects in several settings, but so far the causality remains unclear. However, the WHO has recommended to avoid the application of ibuprofen when possible. Metamizol seems to be a good alternative in acute renal colic [1, 2]. 2) Renal decompression in case of analgesic refractory colic pain or threatening urosepsis are emergency procedures and shall be performed as soon as the local situation allows [3]. 				
Medical expulsive therapy (MET) and Chemolysis				
<ol style="list-style-type: none"> 3) In the situation of an infectious pandemic like SARS CoV2 these therapeutic options become more important as a potential way of avoiding surgical interventions. 				
References				
<ol style="list-style-type: none"> 1. Little P. Non-steroidal anti-inflammatory drugs and covid-19. British Medical Journal Publishing Group; 2020. 2. Sodhi M, Etminan M. Safety of Ibuprofen in Patients with COVID-19; Causal or Confounded? Chest. 2020. 3. Stensland K, Morgan T, Moizadeh A, Lee C, Briganti A, Catto J, et al. Considerations in the Triage of Urologic Surgeries During the COVID- 				

Recommendations from the EAU Urological Infections Guidelines Panel applicable during the COVID-19 pandemic

Diagnosis				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendations				
Uncomplicated Cystitis	Telephone/electronic consultation for case history.			
Urethritis	Telephone/electronic consultation for case history.			
Level of evidence	Expert advice			
Treatment				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendations				
Uncomplicated Cystitis	Antibiotics after urology consultation.			
Uncomplicated Pyelonephritis	Antibiotics after urology consultation.			
Complicated UTIs			Antibiotics after urology consultation. Inpatient treatment when necessary.	
Acute epididymitis	Antibiotics after urology consultation.			
Urethritis	Antibiotics after urology consultation.			
Acute bacterial	Mild: Antibiotics after		Severe: Intravenous antibiotics;	

prostatitis	urology consultation.		suprapubic catheter if residual urine/obstructive.	
Urosepsis				Patient with suspicion of urosepsis are to be referred to the nearest hospital and immediate management according to cause and symptoms.
Fournier's gangrene				Surgical debridement and intravenous antibiotic treatment; IMC if necessary.
Level of evidence	Expert advice		Expert advice	Expert advice
Follow up				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendations				
	Telephone and video consultations or electronic communication. Only patients who need urgent attention brought to the hospital.			
Level of evidence	Expert advice			
General considerations				
<ol style="list-style-type: none"> 1) As many uncomplicated UTIs (e.g., uncomplicated cystitis, uncomplicated UTI or recurrent UTI etc.) will self-resolve within a short time with or without appropriate antimicrobial treatment, it is recommended to utilize as much as possible the use of telemedicine, video conferencing or voice call interview. Patients for which a urine sample (for urine culture or other analysis) must be taken or patients with additional risk factors should be given priority. 2) Most urological infections do not require surgery; however, in cases of obstructive disease linked to an infection, for example, some interventions may be required. In these cases, it is recommended that all procedures should be preferably performed by experienced urologists, outside of their learning 				

curve. Procedures should be performed with the minimum number of staff members.

- 3) The duration and frequency of shedding of SARS-CoV-2 in urine is unknown. Although no evidence of disease transmission through urine has been demonstrated urine sampling (for urine culture, dipsticks and other analyses), urethral catheterisation and endoscopic procedures (e.g., TURP, TURB, ureteral stenting, etc.) should be executed with caution.

Recommendations from the EAU Sexual and Reproductive Health Guidelines Panel applicable during the COVID-19 pandemic

General Statement				
Management (diagnosis, treatment and follow up) of Sexual Health/Erectile Dysfunction in the COVID-19 period is of low priority, with the exception of the following recommendations.				
Diagnosis				
Priority Category	LOW PRIORITY	INTERMEDIATE PRIORITY	HIGH PRIORITY	EMERGENCY
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendations				
Evaluation of late-onset hypogonadism (LOH)		All diagnosis of LOH except for testosterone therapy trial which is low priority.		
Erectile dysfunction			<ul style="list-style-type: none"> Medical and psychosexual history (use of validated instruments, e.g. IIEF). Take a comprehensive medical and sexual history in every patient presenting for erectile dysfunction (ED). Consider psychosexual development, including life stressors, cultural aspects, and cognitive/thinking style of the patient regarding their sexual performance. 	
Evaluation of male infertility		<ul style="list-style-type: none"> Investigate both partners simultaneously to categorise the cause of infertility. 		A multidisciplinary team discussion concerning invasive diagnostic

		<ul style="list-style-type: none"> • Include a parallel assessment of the fertility status, including ovarian reserve, of the female partner during the diagnosis and management of the infertile male, since this might determine decision making in terms of timing and therapeutic strategies (e.g., assisted reproductive technology (ART) versus surgical intervention). • Perform semen analyses according to the WHO Laboratory Manual for the Examination and Processing of Human Semen (5th edn) indications and reference criteria. • Perform scrotal ultrasound (US) in patients with infertility, as there is a higher risk of testis cancer. 		modalities (e.g., US-guided testis biopsy with frozen section versus radical orchidectomy versus surveillance) should be considered in infertile men with US-detected indeterminate testicular lesions, especially if additional risk factors for malignancy are present.
Low Sexual Desire			Perform the diagnosis and classification of low sexual desire based on medical and sexual history, which could include validated questionnaires.	
Treatment				
Priority Category	LOW PRIORITY	INTERMEDIATE PRIORITY	HIGH PRIORITY	EMERGENCY
Definition	Clinical harm very unlikely if	Clinical harm possible if	Clinical harm very likely if	Life threatening

	postponed 6 months	postponed 3-4 months but unlikely	postponed > 6 weeks	situation
COVID-recommendations				
Late-onset hypogonadism			<ul style="list-style-type: none"> • Use conventional medical therapies for treating severe depressive symptoms and osteoporosis. • Do not use testosterone therapy to improve body composition, reduce weight and benefit cardio-metabolic profile. • Do not use testosterone therapy for improving cognition vitality and physical strength in aging men. 	
Late-onset hypogonadism choice of treatment		<ul style="list-style-type: none"> • Treat, when indicated, organic causes of hypogonadism (e.g., pituitary masses, hyperprolactinaemia, etc). • Improve lifestyle and reduce weight (e.g., obesity); withdraw, when possible, concomitant drugs which can impair testosterone production; treat comorbidities before starting testosterone therapy. • Select the testosterone preparation in a joint 		

		decision process, only with a fully informed patient.		
Erectile dysfunction		<ul style="list-style-type: none"> Assess all patients for inadequate/incorrect information about the mechanism of action and the ways in which drugs should be taken, as they are the main causes of a lack of response to phosphodiesterase type 5 inhibitors (PDE5Is.) Treat a curable cause of ED first, when found. Use PDE5Is as first-line therapeutic options. Pro-erectile treatments should start at the earliest opportunity after radical prostatectomy/ pelvic surgery and other curative treatments for prostate cancer. 	Discuss with patients undergoing radical prostatectomy (any technique) about the risk of sexual changes other than ED, including libido reduction, changes in orgasm, anejaculation, Peyronie's like disease and penile size changes.	
Recurrent haemospermia		Men > 40 years of age with persistent haemospermia should be screened for prostate cancer.		
Peyronie's disease		<ul style="list-style-type: none"> Offer conservative treatment to patients not fit for surgery or when surgery is not acceptable to the patient. Discuss with patients all the 	Do not offer oral treatment with vitamin E, potassium para-aminobenzoate (potaba), tamoxifen, pentoxifiline, colchicine and acetyl esters of carnitine to treat Peyronie's	

		<p>available treatment options and expected results before starting any treatment.</p> <ul style="list-style-type: none"> • Nonsteroidal anti-inflammatory drugs (NSAIDs) can be used to treat penile pain in the acute phase of PD. • Phosphodiesterase type 5 inhibitors can be used to treat concomitant ED or if the deformity results in difficulty in penetrative intercourse in order to optimise penetration. 	disease.	
Cryptorchidism		Men with unilateral undescended testis and normal hormonal function/spermatogenesis should be offered orchidectomy.		
Germ cell malignancy and testicular microcalcification			<ul style="list-style-type: none"> • Men with testicular microcalcification should learn to perform self-examination even without additional risk factors, as this may result in early detection of testicular germ cell tumour. • Sperm cryopreservation should be performed prior to planned orchidectomy, since men with testis cancer 	If there are suspicious findings on physical examination or ultrasound in patients with testicular microcalcification with associated lesions, perform inguinal surgical exploration with testicular biopsy or offer orchidectomy after multidisciplinary

			<p>may have significant semen abnormalities (including azoospermia).</p> <ul style="list-style-type: none"> Men with testis cancer and azoospermia or severe abnormalities in their semen parameters may be offered onco-testicular sperm extraction at the time of radical orchidectomy. 	meeting and discussion with the patient.
Hormonal Therapy		<ul style="list-style-type: none"> Hypogonadotropic hypogonadism (secondary hypogonadism), including congenital causes, should be treated with combined human chorionic gonadotropin (hCG) and follicle stimulating hormone (FSH) (recombinant FSH; highly purified FSH) or pulsed Gonadotropin releasing hormone (GnRH) via pump therapy to stimulate spermatogenesis. In men with hypogonadotropic hypogonadism, induce spermatogenesis by an effective drug therapy (hCG; human menopausal gonadotropins; recombinant FSH; highly purified FSH). In the presence of 		Do not use testosterone therapy for the treatment of male infertility.

		hyperprolactinaemia dopamine agonist therapy may improve spermatogenesis.		
Male fertility surgery	All elective surgical sperm retrieval and fertility procedures should be cancelled until further notice.		Women who have limited ovarian reserve or are of advanced maternal age, a delay in fertility intervention may result in significantly poorer outcomes and a full discussion with the couple needs to take place highlighting this.	
Sperm cryopreservation in men with testis cancer since they may have significant semen abnormalities (including azoospermia).	Sperm banking: Low Priority (in patients receiving adjuvant treatment, but should be performed before any gonadotoxic or ablative therapy. There is currently no evidence for vertical transmission of COVID 19. However, patients may be offered testing at their discretion at the time of performing standard serology (ie HIV/Hepatitis testing) prior to sperm cryopreservation.			Prior to planned orchidectomy.
Onco-testicular sperm extraction in men with testis cancer and azoospermia or severe abnormalities in their semen parameters				At the time of radical orchidectomy.

Follow up				
Priority Category	LOW PRIORITY	INTERMEDIATE PRIORITY	HIGH PRIORITY	EMERGENCY
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendations				
Late-onset hypogonadism			<ul style="list-style-type: none"> • Assess for cardiovascular risk factors before commencing testosterone therapy. • Assess men with known cardiovascular disease (CVD) for cardiovascular symptoms before testosterone therapy and with close clinical assessment and evaluation during treatment. • Treat men with hypogonadism and pre-existing CVD, venous-thromboembolism or chronic cardiac failure, who require testosterone therapy with caution, by careful clinical monitoring and regular measurement of haematocrit (not exceeding 54%) and testosterone levels. • Exclude a family history of venous-thromboembolism before commencing 	

			<p>testosterone therapy.</p> <ul style="list-style-type: none">• Monitor testosterone, haematocrit at three, six and twelve months after testosterone therapy initiation, and thereafter annually. A haematocrit more than 54% should require testosterone therapy withdrawal and phlebotomy. Reintroduce a lower dose once the haematocrit has normalised and consider switching to topical testosterone therapy at testosterone preparations.	
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Recommendations from the EAU/ESPU Paediatric Urology Guidelines Panel applicable during the COVID-19 pandemic

Diagnosis and outpatient clinics for paediatric urology cases				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendation	Benign scrotal and penile pathology, incontinence.	Semi-urgent cases like initial post-operative ultrasound after upper tract surgery.	Urgent cases in which delay may cause irreversible progression or organ damage: includes ultrasound, VCUG in suspected severely obstructed uropathy where surgery is still considered.	Continue all care in which delay is potentially organ threatening or life threatening.
Post-operative follow up schedule after surgery				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendation	Follow-up by 6 months	Follow-up before end of 3 months	Follow-up within < 6 weeks	Follow-up within < 24 h
	Orchidopexy, hydrocele, hypospadias, circumcision, inguinal hernia, buried penis, urolithiasis if no obstruction or infection.	Any kind of anti-reflux surgery, pyeloplasty, incontinence surgery if bladder emptying is working.	<ul style="list-style-type: none"> • Pyeloplasty with possible loss of function. • Recurrent UTI after anti-reflux surgery. • Incontinence surgery with bladder emptying problems. 	<ul style="list-style-type: none"> • Macroscopic hematuria after trauma. • Inguinal hernia repair with onset of scrotal pain. • Suspected bowel obstruction or intestinal perforation in conjunction with bladder augmentation.

				<ul style="list-style-type: none"> • Urolithiasis with signs of sepsis and/or obstruction. • PUV with urinary retention. • Local wound infection or abscess formation after any kind of surgery. • Febrile UTI/urosepsis signs after any kind of surgery.
Surgical procedures for paediatric urology cases				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendation	Defer by 6 months	Treat before end of 3 months Perform surgery that is semi-urgent.	Treat within < 6 weeks Perform surgery for urgent cases in which delay will cause irreversible progression of disease or organ damage.	Treat within < 24 h Perform surgery in cases of organ threatening of life threatening disease.
	<ul style="list-style-type: none"> • Benign scrotal and penile surgery (orchidopexy, hydrocele, inguinal hernia, circumcision). • Functional surgery (incontinence surgery, meatotomy, botulinum toxin injections). • Genital reconstructive 	<ul style="list-style-type: none"> • Surgery for VUR (open re-implant and bulk injection). • Pyeloplasty if no loss of function. • Urolithiasis if no infection or obstruction. • Botulinum toxin injections 	<ul style="list-style-type: none"> • Pyeloplasty in UPJ obstruction with progressive loss of function or severe symptoms (consider drainage with JJ of nephrostomy). • PUV. • POM with progressive loss 	<ul style="list-style-type: none"> • Urosepsis with obstruction (urolithiasis, ureterocele with obstruction or POM). • Trauma with haemodynamic instability or urinoma formation. • PUV if urethral or

	<p>surgery (hypospadias, buried penis, other genital abnormalities).</p> <ul style="list-style-type: none"> • Benign (Hemi)Nephrectomy. • Bladder augmentation, catheterisable stoma, appendicocoecostomy due to the high and prolonged impact on patients and resources. • Bladder exstrophy correction depending on age and local situation. 	<p>for neurogenic bladder only in selected cases.</p>	<p>of function.</p> <ul style="list-style-type: none"> • Urolithiasis with recurrent infections. 	<p>suprapubic catheter cannot be placed.</p> <ul style="list-style-type: none"> • Oncology (Wilms, malignant testicular/ paratesticular tumours, RMS of bladder and prostate, resection may be considered depending on local situation and condition of child). • Acute ischemia (testicular torsion – in neonates not exploring is an option due to low chance to salvage testis, very low risk of metachronous contralateral torsion and increased vulnerability of these patients). • Paraphimosis.
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<p>General considerations</p>
<ol style="list-style-type: none"> 1) While most children themselves may not be severely ill with COVID-19, this pandemic will impact paediatric urological care. Careful decision must be made on what care requires postponement and what care is essential to be continued. 2) Depending on the resources and capacity we recommend to only treat high-priority and emergency cases surgically during the COVID-19 pandemic. 3) Consider treating intermediate-priority patients if capacity is available, but not during the COVID-19 surge. 4) It is important to note that postponing surgery in patients with obstructive uropathy (UPJ-, UVJ-obstruction, PUV, neurogenic bladder) may lead to loss of renal function and the decision to postpone may be revised depending on the duration of the local situation as well as the severity of the obstruction in the individual case. Temporary drainage methods may be considered to bridge definitive surgery. 5) Undoubtedly there will be cases of congenital abnormalities where the optimal surgical time point will be surpassed, such as hypospadias and

cryptorchidism. These children may be at risk for suboptimal outcome or increased psychological burden due to delayed surgery and should be prioritised in the long waiting list.

Abbreviations

PUV = posterior urethral valves; POM = primary obstructive megaureter; UPJ = ureteropelvic junction; VCUG = voiding cystourethrogram; VUR = vesicoureteral reflux; UVJ = ureterovesical junction; and UTI = urinary tract infection.

Recommendations from the EAU Chronic Pelvic Pain Guidelines Panel applicable during the COVID-19 pandemic

Diagnosis				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendation				
	All diagnostic procedures and recommendations for Chronic Pelvic Pain are deemed low priority			
Treatment				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
COVID-recommendations				
Prostate Pain Syndrome	<ul style="list-style-type: none"> • Offer multimodal and phenotypically directed treatment options for Prostate Pain Syndrome (PPS). • Offer high-dose oral pentosane polysulphate in PPS. • Offer acupuncture for use in PPS. 	<ul style="list-style-type: none"> • Use antimicrobial therapy (quinolones or tetracyclines) over a minimum of six weeks in treatment-naïve patients with a duration of PPS less than one year. • Use α-blockers for patients with a duration of PPS less than one year. • Offer non-steroidal anti-inflammatory drugs in PPS, but long-term side-effects have to be considered. 		
Bladder Pain Syndrome	<ul style="list-style-type: none"> • Offer subtype and phenotype-oriented therapy for the treatment of Bladder Pain Syndrome (BPS). • Always consider offering multimodal behavioural, physical and psychological 	<ul style="list-style-type: none"> • Administer amitriptyline for treatment of BPS. • Offer transurethral resection (or coagulation or laser) of bladder lesions, but in BPS type 3 C only. 		

	<p>techniques alongside oral or invasive treatments of BPS.</p> <ul style="list-style-type: none"> • Offer oral pentosane polysulphate for the treatment of BPS. • Offer oral pentosane polysulphate plus subcutaneous heparin in low responders to pentosane polysulphate alone. • Offer intravesical hyaluronic acid or chondroitin sulphate before more invasive measures. • Offer intravesical lidocaine plus sodium bicarbonate prior to more invasive methods. • Offer intravesical heparin before more invasive measures alone or in combination treatment. • Offer submucosal bladder wall and trigonal injection of botulinum toxin type A (BTX-A) plus hydrodistension if intravesical instillation therapies have failed. • Offer neuromodulation before more invasive interventions. • Only undertake ablative organ surgery as the last resort and only by experienced and BPS-knowledgeable surgeons. 			
Scrotal Pain Syndrome	<ul style="list-style-type: none"> • Do open instead of laparoscopic inguinal hernia repair, to reduce the risk of scrotal pain. • In patients with testicular pain improving after spermatic block, offer 			

	microsurgical denervation of the spermatic cord.			
Gynaecological Aspects of CPP	<ul style="list-style-type: none"> • Involve a gynaecologist to provide therapeutic options such as hormonal therapy or surgery in well-defined disease states. • Provide a multidisciplinary approach to pain management in persistent disease states. 			
Functional Anorectal Pain	<ul style="list-style-type: none"> • Undertake biofeedback treatment in patients with chronic anal pain. • Offer Botulinum toxin type A and electrogalvanic stimulation in chronic anal pain syndrome. • Offer percutaneous tibial nerve stimulation in chronic anal pain syndrome. • Offer sacral neuromodulation in chronic anal pain syndrome. • Offer inhaled salbutamol in intermittent chronic anal pain syndrome. 			
Sexological Aspects in CPP	<ul style="list-style-type: none"> • Offer behavioural strategies to the patient and his/her partner to reduce sexual dysfunctions. • Offer pelvic floor muscle therapy as part of the treatment plan to improve quality of life and sexual function. 			
Psychological Aspects of CPP	<ul style="list-style-type: none"> • For CPP with significant psychological distress, refer patient for CPP-focused psychological treatment. 			
Pelvic Floor	<ul style="list-style-type: none"> • Apply myofascial treatment as first-line 			

Dysfunction	<p>treatment.</p> <ul style="list-style-type: none"> • Offer biofeedback as therapy adjuvant to muscle exercises, in patients with anal pain due to an overactive pelvic floor. 			
Management of Chronic/Non-acute Urogenital Pain by Opioids	<ul style="list-style-type: none"> • Prescribe opioid treatment, following multidisciplinary assessment and only after other reasonable treatments have been tried and failed. 			

Recommendations from the EAU Urological Trauma Guidelines Panel applicable during the COVID-19 pandemic

Diagnosis, Treatment and Follow up				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
Renal Trauma COVID-recommendations				
	Stable patients with Grade 1 and 2 injuries should be managed conservatively and not be admitted to hospital at all if possible.	Stable Patients with Grade 3-4 injuries should be managed conservatively with a view for early discharge if possible.		<ul style="list-style-type: none"> • A high-grade renal injury with active bleeding in a haemodynamically-stable patient should be managed with selective angio-embolisation if available. • Patients with high-grade injuries and persistent haemodynamically instability should have urgent surgical exploration plus nephrectomy.
Level of evidence	3	3		3
General considerations renal trauma				
Surgical exploration requires OR facility, but might allow for a quicker discharge from ICU, while angio-embolisation needs close observation usually at ICU with risk of recurrence and exploration. A tailored approach should be used. Complete embolisation of the kidney in this crisis situation is a valid option and may reduce ICU demand.				
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
Ureteral Trauma COVID-recommendation				
			<ul style="list-style-type: none"> • In case of ureteric injuries, only urinary diversion is essential in the acute 	

			setting. <ul style="list-style-type: none"> Nephrostomy should be preferred above JJ-stent as it avoids general anesthesia and an operation theatre. If a JJ-stent can be inserted with x-ray guidance outside the OR, it is a valid option mainly for females. Reconstructive procedures can be postponed. 	
Level of evidence			3	
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
Bladder Trauma COVID-recommendation				
	Conservative: Extra-peritoneal or small iatrogenic intra-peritoneal lesion.			Immediate surgical exploration and repair: Intra-peritoneal bladder ruptures by blunt trauma, and any type of bladder injury by penetrating trauma.
Level of evidence	3			3
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
Urethral Trauma COVID-recommendations				
	<ul style="list-style-type: none"> A urethral injury should be managed by transurethral or suprapubic urinary diversion. 		Female PFUI (pelvic fracture urethral injury) should be repaired early within 7 days (high priority).	

	<ul style="list-style-type: none"> Deferred (at least three months) urethroplasty is advisable, while early urethroplasty (two days to six weeks) or early endoscopic re-alignment have low-priority. 			
Level of evidence	2a-3		3	
Priority category	Low Priority	Intermediate Priority	High priority	Emergency
Definition	Clinical harm very unlikely if postponed 6 months	Clinical harm possible if postponed 3-4 months but unlikely	Clinical harm very likely if postponed > 6 weeks	Life threatening situation
Genital trauma COVID-recommendations				
	Conservative: non-penetrating injuries without signs of ruptures.		Testicular injury with tunical rupture, penile fracture, and penetrating genital injury are all organ-threatening and should be managed surgically with high-priority.	
Level of evidence			3	
General considerations				
<p>In “regular” trauma situations, damage control principles are followed in order to stabilise the patient and delay definitive procedures until the patient is in a better physiological state. In mass casualties event, such as the current SARS-CoV-2 pandemic, when health system demands exceed its resources, we can use the same principles to postpone non-urgent procedures until better times. A nephrostomy tube, for example, can drain an obstructed kidney even for a few months until reconstructive surgery is planned. One must be mindful that at present we have no indication of when the SARS CoV2 pandemic will be resolved so such patients should be clearly informed on the mechanisms to urgently contact the health care systems in case of an emergency (direct phone numbers and email addresses).</p>				