



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Editorial

Widespread Postponement of Functional Urology Cases During the COVID-19 Pandemic: Rationale, Potential Pitfalls, and Future Consequences

Véronique Phé^{a,b,*}, Gilles Karsenty^b, Grégoire Robert^c, Xavier Gamé^d, Jean-Nicolas Cornu^e

^aDepartment of Urology, La Pitié-Salpêtrière Academic Hospital, Sorbonne Université, Paris, France; ^bDepartment of Urology, La Conception Hospital, Aix-Marseille Université, Marseille, France; ^cDepartment of Urology, CHU Bordeaux, University of Bordeaux, Bordeaux, France; ^dDepartment of Urology, CHU Rangueil, Université Paul Sabatier Toulouse III, Toulouse, France; ^eDepartment of Urology, Rouen University Hospital, Rouen, France

Owing to the recent emergence and rapid spread of SARS coronavirus 2, many national health authorities are recommending cancellation of scheduled elective surgeries and office visits [1–5]. The objectives are to increase the availability of inpatient and intensive care unit beds, to permit internal redeployment of medical staff and nurses, and to avoid overwhelming the health care systems. Another goal is to minimise exposure to COVID-19 by reducing visits to hospital by asking patients to stay at home to flatten the pandemic curve.

In the field of urological oncology, national and international guidance have recently provided valuable information for adapting patient care during the current pandemic [3,5]. Life-threatening or rapidly progressing malignant diseases (eg, muscle-invasive bladder cancer and testicular tumours) have been set as surgical priorities for which the usual standard of care should be maintained. By contrast, in the field of functional urology, given the absence of a formalised concept of disease-related “prognosis”, clear-cut decisions are more difficult to make. This area covers a wide spectrum of clinical situations, sometimes viewed as purely benign conditions or quality-of-life issues. While widespread postponement of such cases is a safe decision during the initial dramatic surge of the pandemic, the reality is more complex. In the short term, recommendations for surgery and routine care probably need to be amended with specific guidance to maintain the level of care and satisfy patient needs. “Rescheduling” cannot be the universal answer to this upcoming challenge. Before an evidence-based rationale becomes available to modify our approaches for benign urological diseases, our community

will have to rely on common sense to sort out specific emergencies, smartly adapt their practice to a continuously changing situation, and anticipate the future.

For nonurgent situations, office visits should be replaced by telemedicine, via either video or telephone consultation [6] (for patients aged >70yr or unable to connect and patients with chronic diseases); in France, these consultations are fully reimbursed by the national health insurance scheme. Medical options for lower urinary tract symptoms must be systematically considered and/or optimised with appropriate patient information. Self-administered transcutaneous tibial nerve stimulation is preferable to the percutaneous approach if available. Pelvic-floor muscle training should be postponed to respect social distancing and confinement; coping, education, and motivation programmes should be encouraged.

Planned surgical procedures for relief of benign prostatic obstruction can be postponed. In the case of acute urinary retention or severe/complicated obstruction, a urethral or suprapubic catheter can be placed and changed regularly in the community setting. Intermittent catheterisation should be systematically considered if education remains possible. In selected cases, office-based endoscopic techniques performed under local anaesthetic (Urolift, Rezum, I-Tind) may also be discussed as alternative options.

Non-neurogenic overactive bladder is multifactorial and can notably reveal a bladder tumour. Urologists should therefore screen their patient list to check for “red flags” requiring rapid appropriate investigations such as endoscopy. Surgical management using botulinum toxin A injection (BTX-A) or sacral nerve stimulation should be

* Corresponding author. Department of Urology, La Pitié-Salpêtrière Academic Hospital, Sorbonne Université, Paris, France.
E-mail addresses: phe.veronique@gmail.com, veronique.phe@aphp.fr (V. Phé).

postponed except for patients who received an implant with a lead during a test phase just before confinement. For these patients (theoretically at risk of infection if the lead is left in place for several weeks), removal of the lead or implantation of a pacemaker under local anaesthesia in an outpatient setting may be discussed.

Pelvic organ prolapse can be treated with pessary placement, except for grade 4 cases with ureteral obstruction or refractory to pessary placement, which require urgent surgery.

Neurogenic patients are challenging cases not only because of the therapeutic setting but also because of their potential susceptibility to COVID-19 infection. While neurogenic bladder itself has not yet been identified as a risk factor for COVID-19 infection, the numerous comorbidities (especially cardiac and pulmonary diseases) associated with neurological diseases make these patients de facto at risk of complications. Moreover, systemic therapies (eg, for treatment of multiple sclerosis) may mean that these patients are even more vulnerable.

From a urological point of view, the aim of neurogenic bladder management is to prevent renal failure and infections. Some high-risk situations have been identified, including maximum detrusor pressure >30 cm H₂O, bladder compliance <15 ml/cm H₂O, autonomic dysreflexia, recurrent urinary tract infections (UTIs), and recent changes in the upper urinary tract [7]. In these cases it may be advisable to maintain intradetrusor BTX-A injections as scheduled, under local anaesthesia if possible.

Major reconstructive surgeries, including augmentation cystoplasty, cystectomy, and continent and incontinent diversions, are being postponed because they require intensive postoperative care. However, some situations warrant a discussion about balancing the risks and benefits, especially in the case of threatening infectious lesions (eg, ongoing complicated perineal infections, urethrocutaneous fistulae complicating a sacroperineal pressure ulcer, symphysis, recurrent severe UTIs). These conditions, although rare, require surgical management without delay in a frail population to avoid severe complications or death [8]. The essential step in treatment is to dry the perineum by performing a noncontinent urinary diversion. Concomitant cystectomy may be delayed to minimise surgical morbidity and avoid any need for intensive care.

Finally, multidisciplinary meetings should be held using virtual meeting software and teleconferences to avoid overwhelming situations after confinement, especially in tertiary reference centres [9].

The current situation is leading to major disturbances in patient care in the field of functional urology. The decision to postpone an invasive procedure is driven by case-by-case discussions. Therefore, we have to carefully monitor

patients to provide the usual standard of care for their conditions after resolution of the crisis. It is essential to maintain traceability for all information exchanged on patients during the whole period and make this available for future analyses of possible direct or indirect consequences. To face the post-epidemic phase, which is predicted to last for a few months after confinement, we have to anticipate ways in which to progressively resume our activities to avoid overwhelming the system with complicated cases, rescheduled procedures, and new patients. In this reflection, the outpatient setting may provide unique solutions in the care pathway. Finally, a comprehensive and in-depth analysis of what worked and what failed during these exceptional circumstances will be necessary, hopefully in the coming months, to learn lessons and anticipate any further shortages in health care resources.

Conflicts of interest: The authors have nothing to disclose.

References

- [1] American College of Surgeons. COVID-19: recommendations for management of elective surgical procedures. <https://www.facs.org/covid-19/clinical-guidance/elective-surgery>.
- [2] NHS England. Important and urgent – next steps on NHS response to COVID-19. <https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/20200317-NHS-COVID-letter-FINAL.pdf>.
- [3] Stensland K.D., Morgan T.M., Moinezhadeh A., et al. Considerations in the triage of urological surgeries during the COVID-19 pandemic. *Eur Urol*. In press.
- [4] Simonato A., Giannarini G., Abrate A., et al. Pathways for urology patients during the COVID-19 pandemic. *Minerva Urol Nefrol*. In press. <https://doi.org/10.23736/S0393-2249.20.03861-8>.
- [5] Mejean A., Roupêt M., Rozet F., et al. [Recommendations CCAFU on the management of cancers of the urogenital system during an epidemic with coronavirus COVID-19]. *Prog Urol*. In press. <https://doi.org/10.1016/j.purol.2020.03.009>.
- [6] Hollander JE, Carr BG. Virtually perfect? Telemedicine for Covid-19. *N Engl J Med*. In press. <https://doi.org/10.1056/NEJMp2003539>.
- [7] Jousain C, Popoff M, Phé V, et al. Long-term outcomes and risks factors for failure of intradetrusor onabotulinumtoxin A injections for the treatment of refractory neurogenic detrusor overactivity. *Neurourol Urodyn* 2018;37:799–806 In: <https://doi.org/10.1002/nau.23352>
- [8] Gambachidze D, Lefèvre C, Chartier-Kastler E, et al. Management of urethrocutaneous fistulae complicating sacral and perineal pressure ulcer in neurourological patients: a national multicenter study from the French-speaking Neuro-urology Study Group and the Neuro-urology Committee of the French Association of Urology. *Neurourol Urodyn* 2019;38:1713–20 In: <https://doi.org/10.1002/nau.24047>
- [9] Pandeva I, Biers S, Pradhan A, Verma V, Slack M, Thiruchelvam N. The impact of pelvic floor multidisciplinary team on patient management: the experience of a tertiary unit. *J Multidiscip Healthc* 2019;12:205–10 In: <https://doi.org/10.2147/JMDH.S186847>