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.

Journal of Pediatric Urology (2020) 16, 291–292

Letter to the Editor

Impact of COVID-19 on the future of pediatric urology practice. Do guidelines apply to medical practice worldwide?

After the announcement of the World Health Organization, where COVID-19 was declared a pandemic, healthcare systems in Europe and North America collapsed due to an overwhelming number of critical cases requiring management. Some countries in the western hemisphere that had not been hit so severely were able to prepare and allocate resources in order to avoid a saturation of their systems. The American College of Surgeons published their guidelines about how to prioritize and triage surgical management including cessation of elective surgery [1].

In the pre-COVID-19 era, congenital urological anomalies have been considered a significant burden of disease for health care systems in middle- and low-income countries [2]. In these countries, surgery for congenital anomalies has been considered an essential measure of public health [3]. Nonetheless, in normal conditions, allocation of resources and access to surgical care are limited. In Colombia, pediatric urology patients have an average waiting time of about 4–6 months. At the capital city there are 11 pediatric urologists (not all with a full-time pediatric practice and not all affiliated to pediatric hospitals and three of them close to retirement) serving a population of 9 million people. One of the busiest hospitals performs an average of 60 surgical procedures per month. Pediatric Urology practice in more remote areas or small cities is limited. Most patients and families need to travel long distances to get their treatments [4]. This makes very difficult to perform outpatient procedures.

As part of COVID-19 contingency plans, elective surgical procedures have been postponed due to the evidence of higher complication rates associated with the pandemic, mostly on the adult population, but also in preparation for the potential high demand for ventilators [5,6]. It is our fear, that by implementing these measures, that are necessary to mitigate the impact of the pandemic, we will be creating significant collateral damage. Specifically, in pediatric urology practice, as mentioned above, the thin balance between availability of medical resources, lack of national experienced manpower in this field and unmet medical treatments with complications due to delayed managements will worsen after COVID-19 pandemic. Once restrictive measures start to loosen, and ORs reactive, we will have to compete against our own colleagues for OR time. How are we going to triage a pediatric patient over an adult with an oncological diagnosis? How are we going to balance new patients entering waiting lists and the ones that have been waiting already?

Since mid-March, a mandatory national lockdown was declared and since then we continued on this restrictive measure to date. Given this, COVID-19 outbreak has not saturated our intensive care units and the curve is starting to plateau with only 10% of UCI bed occupation overall. For this reason, we have been monitoring very closely the trends and have decided to adhere to published guidelines to triage surgical procedures, making adjustments to our current needs. When doing the triage, we have found very difficult to adhere to the guidelines, mostly due to waiting times, available resources, specific demographics of our population amongst other social variables. Development of clinical guidelines for developing countries need to take into account local information instead of adopting guidelines written for developed countries. For the latter reason we have included waiting time, limitations to health care access and the potential OR time available once quarantine ends to triage our patients. This has led us to implement changes like performing pyeloplasties, ureteral reimplants, and flexible nephro-ureteroscopies as outpatient procedures starting as the first case of the day. So far, we have performed 21 of these cases, all of them have been followed by phone with an average postoperative hospital stay of 6 h. No complications have been reported. For those stone cases that have required double J stents, we have started to leave the strings to remove them postoperatively.

For the upcoming future, we will be looking forward to an increase in the need to evacuate an overwhelming load cases. Will global health collaborations and medical missions be the key to solve this issue in mid- and low-income

https://doi.org/10.1016/j.jpurol.2020.05.001

countries? Probably not, as all countries will have to deal with their own cases. Maybe changing the paradigms and guidelines by establishing new ways to perform procedures with shorter hospital stays. Increasing OR times by performing surgeries even during weekends may be a solution. But a very difficult limitation to overcome will be the scarce presence of trained pediatric urologists in these countries. Delayed surgeries will have long-term implications to our society that are difficult to calculate now. All efforts now have to focus on containing COVID-19 but also need to reduce the burden of not treating congenital anomalies.

References

[1] COVID-19. Elective case triage guidelines for surgical care in pediatric surgery [Internet]. American College of Surgeons; 2020 [cited 2020 Mar 24]. p. 2020. Available from: https://www.facs.org/covid-19/clinical-guidance.

[2] Van Batavia JP, Shukla AR, Joshi RS, Reddy PP. Pediatric urology and global health: why now and how to build a successful global outreach program. Urol Clin North Am 2018 Nov;45(4):623—31.

[3] Higashi H, Barendregt JJ, Kassebaum NJ, Weiser TG, Bickler SW, Vos T. The burden of selected congenital anomalies amenable to surgery in low and middle-income regions : cleft lip and palate , congenital heart anomalies and neural tube defects. Arch Dis Child 2015;100(3):233—8.

[4] Pérez J, Sánchez C, Fernandez N. Estado actual de la urología pediátrica en Colombia. Urol Colomb 2014;23(1):16—24.

[5] Bhatraju PK, Ghassemieh BJ, Nichols M, Kim R, Jerome KR, Nalla AK, et al. Covid-19 in critically ill patients in the seattle region - case series. N Engl J Med; 2020. p. 1—11 [Internet] Available from: http://www.ncbi.nlm.nih.gov/pubmed/32227758.

[6] Aminian A, Safari S, Razeghian-Jahromi A, Ghorbani M, Delaney CP. COVID-19 outbreak and surgical practice: unexpected fatality in perioperative period [published online ahead of print, 2020 Mar 26] Ann Surg 2020. https://doi.org/10.1097/SLA.0000000000003925.

Nicolas Fernandez*
Division of Urology, Seattle Children's Hospital, University of Washington, USA
Division of Urology, Hospital Universitario San Ignacio, Pontificia Universidad Javeriana, USA
Department of Urology, Fundacion Santa Fe de Bogota, Universidad de Los Andes, USA

Juan Ignacio Caicedo
Department of Urology, Fundacion Santa Fe de Bogota, Universidad de Los Andes, USA

*Correspondence to: Nicolas Fernandez, Seattle Children's Hospital, University of Washington, USA.
E-mail address: jnfb@uw.edu.co (N. Fernandez)

27 April 2020
Available online 21 May 2020