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.

Preserving Operational Capability While Building Capacity During the COVID-19 Pandemic: A Tertiary Urology Centre's Experience

To the Editor:

The COVID-19 pandemic has spread rapidly across the globe, with the World Health Organisation declaring it a global health emergency on January 30, 2020.[1] As one of the countries earliest affected, Singapore reported its first imported case on 23 January. In the following 2 weeks, Singapore had the highest number of confirmed cases worldwide outside of China, with its national Disease Outbreak alert level raised in response to evidence of worsening local transmission.

We share our early COVID-19 experience on preserving operational capability while building capacity as our country transitioned from containment to mitigation strategies.

We restructured into 3 physically segregated teams to mitigate the risk of cross-contamination. The teams were functionally capable of managing patients across the spectrum of Urological subspecialties. Teams were led by senior Urologists with experience during the 2003 SARS pandemic. The Inpatient Team performed operations, rounds and managed emergencies. The Outpatient Team attended to outpatient visits. The Clean Reserve Team coordinated operational responses, while maintaining operational readiness to substitute sick team members. Intradepartmental, multidisciplinary, and interhospital meetings were conducted via teleconferencing. Challenges included maintaining staff morale with an uncertain duration of service disruption, and potential staff redeployment to frontline departments as part of broader national efforts.

Traditionally not prevalent in Urology, Teleconsultations are now in the limelight.[2] For hospitalized patients with confirmed COVID-19 infection, Teleconsultations were performed to reduce exposure of staff to COVID-19.[3] To preserve outpatient clinic capabilities, we expanded our Telephone Clinic to include patients with ureteric colic, surveillance scans for renal cysts and masses, and post nephrectomy surveillance scans. This has shown strong potential to be continued even after the COVID-19 pandemic.

We reduced outpatient consultations and procedures by 15% and 40% in February and March respectively in anticipation of increased local transmission. In April, as part of stricter national containment efforts, only essential visits proceeded (20%). We observed close mentorship and valuable learning as Consultants and Residents meticulously reviewed each case electronically during the triage process. Challenges include managing the backlog of cases, finding alternative procedures for patients with obstructing stones, and oncological concerns over delays in biopsies.

Elective surgery was gradually reduced over 8 weeks. In March, short-stay semi-urgent surgeries could proceed to preserve service capability. In April, anticipating bed shortages, all surgeries were triaged according to Health Ministry directives, and urology-specific guidelines.[4,5] Only oncological, transplant, and emergency operations proceeded. We reduced the number of elective surgeries by 35% and 80% in the months of March and April respectively.

The COVID-19 pandemic has caused unprecedented strains on global healthcare delivery systems in modern medical history. In our early experience, the relatively flat pandemic curve had allowed a stepwise response, with a balance of maintaining operational capability while creating capacity. On an optimistic note, we have been collectively asked to challenge the norm, demonstrate adaptability in the face of crisis, and review our traditional work processes. Together with Urologists worldwide, our team stands resolute in the face of rapidly changing operational circumstances.

AUTHORS' CONTRIBUTIONS

Yi Quan Tan: Conceptualization, Writing - original draft. *Qing Hui Wu:* Conceptualization, Writing - review & editing. *Edmund Chiong:* Conceptualization, Writing - review & editing, Supervision.

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References

1. World Health Organisation. Statement on the Second Meeting of the International Health Regulations (2005) Emergency Committee Regarding the Outbreak of Novel Coronavirus (2019-nCoV). Date accessed: 28 Apr 2020. Available at: http://www.euro.who.int/en/health-topics/health-emergencies/international-health-regulations/news.
2. Gadzinski AJ, Andino JJ, Odisho AY, et al. Telemedicine and eConsults for hospitalized patients during COVID-19. *Urology*. 2020, Apr 21. In press; https://doi.org/10.1016/j.urology.2020.04.061.
3. Borchert A, Baumgarten L, Dalela D, et al. Managing urology consultations during COVID-19 Pandemic: application of a structured

https://doi.org/10.1016/j.urology.2020.04.079
0090-4295

pathway. *Urology*. 2020, Apr 21. In press; https://doi.org/10.1016/j.urology.2020.04.059.
4. Goldman HB, Haber GP. Recommendations for tiered stratification of urologic surgery urgency in the COVID-19 era. *J Uro*. 2020, Apr 21. In press; https://doi.org/10.1097/JU.0000000000001067.
5. Ribal MJ, Cornford P, Briganti A, et al. EAU guidelines office rapid reaction group: an organisation-wide collaborative effort to adapt the EAU guidelines recommendations to the COVID-19 era. *Eur Urol*. 2020, Apr 27. In press; https://doi.org/10.1016/j.eururo.2020.04.056.