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Editorial

Scoring Systems. A Useful Tool to Resume Urological Surgery During the Covid-19 Pandemic

Hugo Enrique López-Ramos[1] Herney Andrés García-Perdomo[2]

[1] Pontificia Universidad Javeriana de Bogotá, Hospital Universitario San Ignacio, Bogota, Colombia
[2] Department of Surgery, Division of Urology, School of Medicine, Universidad del Valle, Cali, Colombia

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The rapid worldwide spread of SARS-CoV-2 (COVID-19) infection has generated a significant health crisis.[1,2] The focus was on the use of health resources to care for COVID-19 patients in emergency, hospitalization, and intensive care settings.[3] On the other hand, the vast majority of hospital institutions canceled face-to-face consultations and elective procedures, generating an impact on patient care.[4]

Most elective urologic surgeries can be delayed without a negative impact on the patient; except for urologic oncology surgeries.

The European Association of Urology (EAU) and the robotics section (ERUS) of the same association, published their recommendations for surgery during the COVID-19 emergency.[5] Apart from specific recommendations for each case based on programming priorities, they recommend to discuss in a multidisciplinary board previous to take any decision.

Other societies published guidelines for performing surgeries in COVID-19 times; however the focus is to operate what may have a deleterious effect on the patient. These guidelines do not offer a specific pathway to continue consultation and surgery safely for both the professional and the patient.

There are some reports of safe and straightforward systems that classify patients according to their condition, type of procedure, and surgical priority that give us a guideline for reprogramming elective urological procedures.[6]

Prachand et al.[7] proposed a new scoring system (Medically-Necessary, Time-Sensitive Procedures - MeNTS) intending to prioritize medically necessary surgeries that should not be delayed due to the COVID-19 hospital crisis. This scoring system comprises 21 plausible factors that may contribute to the most unsatisfactory perioperative outcomes, the risk of transmission of SARS-CoV-2 to health professionals, and the increased use of hospital resources during the pandemic with anchorage values assigned to a scale of 1–5 in objective measures.

The score contains three domains: Procedure, patient, and disease, each of which requires a score (7–35), (6–30), and (8–40), respectively, and finally a total score, ranging from 21 to 105 (►**Appendix 1**). The higher the score, the greater the risk to the patient, the use of healthcare resources, and the chances of viral exposure to the healthcare team.[7] The authors proposed a cut-point of 55–57 points, considering that above this value, surgeons need to verify the suitability of the procedure.

Similarly, the Spanish Association of Surgery (SAS)[8] published a series of recommendations on how to resume elective surgery after passing the peak of the pandemics. They used the Prachand scoring system establishing a cut-off value of 60 points. Above this value, the suitability of the procedures should be reconsidered.

The American College of Surgeons[6] in conjunction with other scientific societies, suggest the following elements to return to elective surgical activities:

1. The time to return must be consistent with a decrease in the number of cases in the geographic location for at least 14 previous days. Also, hospitalization and intensive care should be available for these patients if it is required.
2. There should be the availability of appropriate exams for COVID-19 in these patients and the professional staff. If it does not exist, it is suggested to establish a contagion prevention plan.
3. All health professionals should be trained in the proper use of personal protection elements. Additionally, there must be the availability of all these.
4. There must be a clear prioritization and organization system, based on scoring systems (eg, MeNTS) in such a way that priority is given to previously canceled cases, as well as to cancer cases that require prompt attention. Additionally, a strategy should be planned in conjunction

Address for correspondence
Herney Andrés García-Perdomo, MD MSc EdD, PhD, FACS, Department of Surgery/Urology, School of Medicine, Universidad del Valle, Cali, Colombia (e-mail: editorrevista@scu.org.co).

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with operating rooms, hospital wards, and intensive care for the arrival of the number of patients requiring surgery.
5. The establishment of protocols for each scenario is essential for an excellent return to activities.

Regarding outpatient follow-up, it is suggested that patients should be discharged in good and stable condition in such a way as to minimize the risk of readmission. Additionally, authors suggest reducing the subsequent controls to the minimum number necessary and also to make use of the information and communication technologies that currently support telehealth,[4,9] in such a way of reducing hospital visits.

We want to propose a proper pathway of resuming to elective urological activity based on compliance with a strict and safety protocol both in the consultation and in elective surgery; to avoid the collapse of our system and ensure appropriate outcomes for our patients.[6] The protocol should include rigorous evaluation of patients based on these scoring and classification systems, as well as strict compliance with the biosafety of healthcare personnel. Additionally, the decision of a multidisciplinary board must be considered, given the legal implications that these decisions may have.

Conflict of Interests
The authors have no conflict of interests to declare.

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Appendix 1 Medically-Necessary Time Sensitive (MeNTS) OR Procedure Prioritization Worksheet

Procedure	**1**	**2**	**3**	**4**	**5**
OR Time	< 30 minute	31–60 minute	61–120 minute	121–180 minute	≥ 181 minute
LOS Anticipated	Outpatient	23hrs	24–48 hour	2–3d	≥ 4d
Post-Op ICU need	Very Unlikely	< 5%	5–10%	11–25%	> 25%
Bleeding Risk	< 100cc	101–250cc	251–500cc	501–750cc	≥ 751cc
Surgical Team Size	1	2	3	4	> 4
Intubation Needed to Perform Procedure (Probability)	≤ 1%	1–5%	6–10%	11–25%	≥ 25%
Surgical Site	**None of the following**	**Abdominopelvic MIS Surgery**	**Abdominopelvic Open Surgery, Infraumbilical**	**Abdominopelvic Open Surgery, Supraumbilical**	**OHNS/Upper GI/Thoracic**
				Procedure Score (7–35)	
Disease	**1**	**2**	**3**	**4**	**5**
Non-Operative Treatment Option EFECTIVENESS	None available	Available, <40% effective as surgery	Available, 40–60% effective as surgery	Available, 61–95% effective as surgery	Available, equally effective
Non-Operative Treatment Option RESOURCE USE/ EXPOSURE RISK	Significantly worse/ not applicable	Somewhat worse	Equivalent	Somewhat better	Significantly Better
Impact of 2wk delay in DISEASE outcome	Significantly worse	Worse	Moderately worse	Slightly worse	Minimally worse
Impact of 2wk delay in SURGICAL difficulty/risk	Significantly worse	Worse	Moderately worse	Slightly worse	Minimally worse
Impact of 6wk delay in DISEASE outcome	Significantly worse	Worse	Moderately worse	Slightly worse	Minimally worse
Impact of 6wk delay in SURGICAL difficulty/risk	Significantly worse	Worse	Moderately worse	Slightly worse	Minimally worse
				Disease Score (6–30)	
Patient	**1**	**2**	**3**	**4**	**5**
Age	<20 yo	21–40yo	41–50yo	51–65yo	>65yo
Lung Disease (asthma, COPD, Cystic Fibrosis)	None			Minimal (rare inhaler)	> Minimal
Obstructive Sleep Apnea	Not present			Mild/Moderate (no CPAP)	On CPAP
Cardiovascular Disease	None	Minimal (no meds)	Mild (1 med)	Moderate (2 meds)	Severe (≥ 3 meds)
Diabetes	None		Mild (no meds)	Moderate (PO meds only)	> Moderate (insulin)
Immunocompromised*	No			Moderate	Severe
Flu-like symptoms (fever, cough, sore throat, body aches, diarrhea)	None (Asymptomatic)				Yes
Exposure to known COVID+ Pt (14d)	No	Probably Not	Possibly	Probably	Yes
				Patient Score (8–40)	
Cumulative MeNTS Score (Procedure + Disease + Patient)					
		Range (21–105)	MRN	Pt. Initials	Procedure