

## Guidelines for Urological Surgeries in the COVID-19 Pandemic: Is it Time for Revision?

Amir H Kashi<sup>1</sup>, Seyyed Mohammad Ghahestani<sup>2\*</sup>

A few months after the advent of COVID 19, urology and health bodies around the world issued various recommendations and practice lines about urology procedures with the aim of helping urologists to encounter this unexpected situation. The emphasis in such issues was on scheduling surgical operations with an aim to postpone them to a better situation in which the disease has presumably subsided and medical facilities, personnel, and equipment are eased. Most of these guide lines endowed 1 to 3-month delays for elective and non-urgent operations.<sup>(1)</sup>

Twelve months after the start of COVID-19, we are able to look at the national incidence patterns of this disease. We considered biweekly cases as active infections impacting the health sector and society, smoothing daily fluctuations<sup>(2)</sup>. The following biweekly incidence patterns were observable: In some countries with an almost swift lockdown response, the study happened as projected. These countries followed a pattern in which secondary surges were smoother than the first one. Germany, Italy, Singapore, Switzerland, and the UK are included in this category (**Figure 1A**). However, many other countries including countries with a high incidence of COVID-19 in primary surge are not classified into the above category of as projected pathway. In these countries, the subsequent surges after the primary surge were either stronger or were totally merged into a constant rising pattern after the primary surge. Curves of biweekly cases in the Czech Republic, France, Iran, Netherlands, Romania, Spain, and the US reveal second surges stronger than the primary surge (**Figure 1B, 1D**). The second surges in these countries were observed one to three months after the primary surge when elective postponed operations had been scheduled primarily. Intriguingly in Japan, the Philippines, and South Korea with a brilliant response to the primary surge of COVID-19, still, the secondary surges were greater than the primary surge (**Figure 1D**).

Release of first surge national restrictions and less compliance of people with COVID-19 protocols in the chronic phase of disease could be speculated as reasons for the observable strong second surge. In Iran, according to formal governmental declarations, the adherence to COVID-19 protocols by the general population decreased from 77% in the first two months of COVID-19 to less than 22% after three months.<sup>(5)</sup>

Therefore, after the postponement period advocated by surgical guidelines, in many countries, the situation had been often no better, if not worse. Since the European Association of Urology guideline committee, rapid reaction group issued its guideline on 21st April 2020, three months later in countries of **Figure 1B** which include many European countries the situation is either the same or aggravating.

We recognize the fact that the very first impact was so startling that this postponement was the only way to concentrate the facilities on the new situation and provide a time for deployment but the continuation of such a policy and universal adoption of these recommendations may be inappropriate in many countries of **Figures 1B, 1C, and 1D**.

It is interesting to mention that during the time of writing this letter two countries namely the Netherlands and the UK moved from within category 1A into category 1B denoting the necessity of a dynamic vigilance.

In Iran, secondary surges show a fluctuating course, and the situation forecast will not be better in the upcoming months. We had examples of patients who were a candidate for elective prostatectomy due to urinary retention who could not tolerate our recommendation of operation postponement and keeping Foley catheter for several weeks and individually opted to undergo elective surgery in other remote centers with fewer resources<sup>(4)</sup>.

Recommendation treatise of Iranian urology association prudently incorporated these epidemiologic data into the pamphlet(IUA-CTP)<sup>(5)</sup>. The authors recognized the wide variation of epidemiologic situations in different provinces and considered this fact in their document. This is especially important in the countries with the vast area and population distribution demonstrating a great difference with European countries. We think that postponement is not a panacea for dealing with sequential surges of COVID-19 and the decision to postponement may culminate in doing the surgery in a worse situation. Instead, the decision to perform an elective operation should be dependent on the availability of hospital beds, ICU beds, personal protective equipment, and other necessary resources in a country or a province and the exact time the patient is visited.

National or regional committees can formulate contemporary guidelines on elective operations based on the availability of regional/national medical resources rather than adopting a universal guideline.

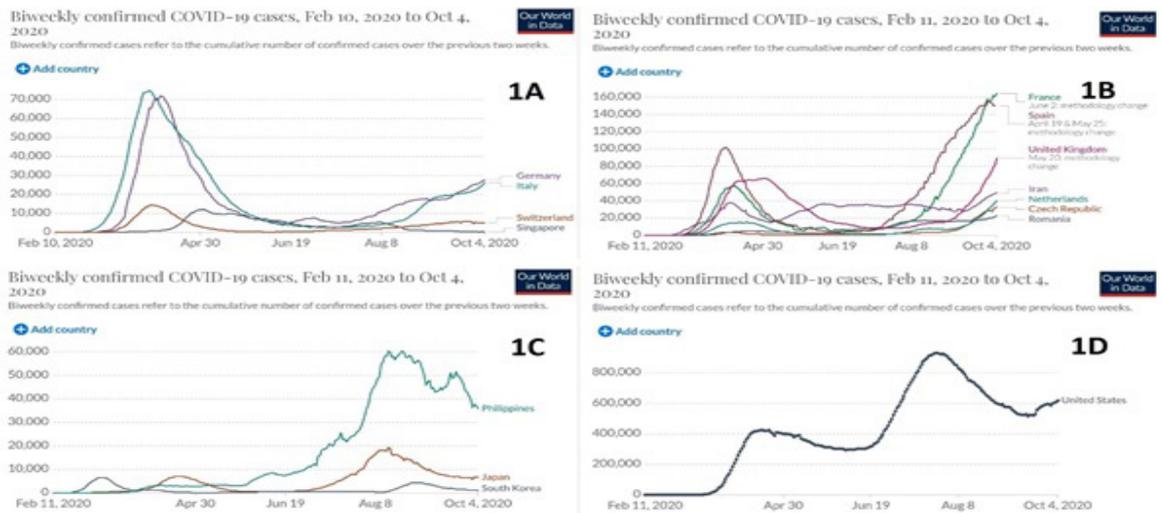
Production of effective vaccines may change the landscape. Nevertheless, in many countries, mass vaccination may happen several months later and till then, the protocols are based on previous assumptions. This again reiterates the difference in circumstances. Monitoring of the situation and considering imminent vaccination in newly evolving protocols are paramount. We stipulate IUA-CTP under the auspices of the Iranian Urology Association

<sup>1</sup>Urology and Nephrology Research Center (UNRC), Shahid Labbafinejad Hospital, Shahid Beheshti ,University of Medical Sciences (SBMU), Tehran, Iran.

<sup>2</sup>Urology Department ,Children Medical Center Hospital ,Tehran University of Medical Sciences, ,Tehran,Iran.

\*Correspondence: Urology Department ,Children Medical Center Hospital ,Tehran University of Medical Sciences, ,Tehran,Iran. E mail: mgrosva@gmail.com.

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**Figure 1.** Biweekly COVID-19 cases in countries based on their pattern. **A)** Countries in which secondary surges were weaker than the primary surge. **B)** Countries experiencing a second surge stronger than the primary surge. **C)** Countries with a brilliant lockdown response to COVID-19 primary surge which experienced secondary surges however mild relative to many other countries but still stronger than their primary surge. **D)** Biweekly COVID-19 cases in the United States.

can be preached as a paragon in the countries facing the escalating phase of the outbreak.

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