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## Commentary: Preparation for pandemics prevents pandemonium

Gal Levy, MD

Healthcare crises are rare and far between. Not since the Spanish flu of 1918 has there been a pandemic as severe and worldwide as the Coronavirus Disease 2019. However, in 1918 the luxury of ventilators and intensive care unit was not accessible. Therefore, without a vaccine to protect against the infection or antibiotics to treat secondary infection, nonpharmaceutical interventions were implemented. The lessons of 1918 remind that isolation, quarantine, and good hygiene are paramount to minimize the spread of infectious organisms.<sup>1</sup> A century later, the world adjusts to another viral pandemic wreaking havoc on the universal healthcare system.

To accommodate the rapid influx of patients in distress, hospitals have had to incorporate massive adjustments, including redeployment of essential personnel, revision of department roles, and allocation of limited lifesaving resources. The impact on adult cardiac surgical practice and cardiovascular disease, and the prioritization of common cardiac surgical procedures are thoroughly reviewed in this article.

The effort placed forth by George and colleagues<sup>2</sup> in compiling this detailed and thorough composition regarding their preparation and execution of the Coronavirus Disease 2019 crisis resource allocation is commendable. The coordinated effort with leadership portrays how necessary it is to have system-wide agreement and planning across all levels of the institution. Their resource allocation reminds us of *The New England Journal of Medicine* recommendations for scarce resources, which was recently published.<sup>3</sup> The subjects addressed are relatable to anyone in the surgical practices. The visual representation in Figure 1 depicts

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Recent Pandemics		
Pandemic	Year	Death toll
Flu pandemic (Spanish Flu)	1918	20-50M
Flu pandemic (H2N2)	1957-1958	4M
HIV/AIDS	1981 - present	36 M
COVID 19	2019 - present	317,566+

Recent pandemics.

### CENTRAL MESSAGE

Uncertainty in emergency and the quickly evolving healthcare crisis can lead to chaos. Preparation strategies for the Coronavirus Disease 2019 pandemic provide purpose and direction for optimal outcomes.

nically the risk stratification in all 3 phases of pandemic levels.

As surgeons, our focused interest is 2-fold: operative intervention and application of our skills to areas of need. George and colleagues<sup>2</sup> address their response to the reduction in operative volume and the adaptive transition into critical care management and procedures while still maintaining a core for emergency surgical activity.

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**FIGURE 1.** Recent pandemics. *HIV*, Human immunodeficiency virus; *AIDS*, acquired immunodeficiency syndrome; *COVID 19*, Coronavirus Disease 2019.

Challenges and logistic solutions to address the implementation of massive redeployment, reorganization of team allocation, and overall complete restructuring of operating room and intensive care unit management are important to follow for future pandemics. George and colleagues<sup>2</sup> have started the conversation that should continue. How do we, as cardiothoracic surgeons, continue to provide care for the cardiovascular diseases that continue during a pandemic while balancing the needs of a new patient population? Discussions on this magnitude can and should continue well after the crisis abates to allow our specialty to continue to

grow and evolve without depriving patients of necessary cardiovascular and thoracic care.

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## Commentary: Vulnerability and resilience demonstrated: Cardiac surgeons during coronavirus disease 2019 (COVID-19)

Scott C. Silvestry, MD

In this issue of the *Journal*, George and colleagues<sup>1</sup> from Columbia University distill the brutal lessons of their coronavirus 2019 (COVID-19) experience in hard-hit New York City into a pandemic playbook for cardiac surgery. The lessons are clear, well thought out, and merit contemplation by all cardiothoracic surgeons. The authors point out, in a pandemic, it is not who you are, but what you can do, and when should you do it? The pandemic forced a seismic redistribution of priorities, resources, and identities. As these lessons were solidifying in New York City, all across the world our colleagues were making similar plans with one goal—how can WE best save lives?

The authors begin with stratifying cardiac surgery patients by acuity and reduced surgeries to less than 10%

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### CENTRAL MESSAGE

The COVID-19 pandemic impacted our practices, our patients, and ourselves. We acknowledge the changes we implemented and the impact on our professional and personal lives.

normal case volumes. This reduction created capacity for the patients with COVID-19 and allowed the application of the liberated resources of elective cardiac surgery to the severely ill patients with COVID-19. Professor and student alike were redeployed, according to ability, to the rosters of team-based care. Many cardiac surgeons became intensivists, others placed lines, and one became an intensive care unit nurse.<sup>2</sup>

Targeted spaces, including operating rooms, were repurposed into much-needed patient areas. Skill-oriented teams were mated to these new “pods” to leverage the expertise of critical care resources. Focusing on providing safety for