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Invited Commentary

Validation of an Intellectual Framework for Prioritizing Time-Sensitive Surgical Procedures During the COVID-19 Pandemic

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In the recent article by Prachand and colleagues,¹ the authors pose a simple and practical way of prioritizing nonemergent surgical cases in the midst of the coronavirus disease (COVID-19) pandemic. Although prioritizing surgical cases is an everyday occurrence in non-COVID-19 times, the current crisis presents unusual constraints related to limited resources, viral exposure to both patients and staff, and a rapidly changing environment related to personal protective equipment, COVID-19 testing, and redeployment of hospital staff. In their manuscript, the authors separate factors related to surgical urgency into 3 domains: the procedure, the patient, and

the underlying disease. Twenty-one factors related to procedure triage were allocated to these 3 domains and were assigned numerical values from 1 to 5, with the sum being inversely related to the priority of the case. Although this is attractive in its simplicity, the conversion of qualitative differences into a quantitative scale—one which can be manipulated arithmetically and presented graphically—assumes that each factor is equally weighted and that each interval between values is equal—both within the domain and between domains. Such a transformation requires both internal and external validation before it can be exported to other institutions and used widely. Although the authors recognize this, one has only to look at a hypothetical example of an extreme example of a hospital that has no inpatient beds to see that it could only do ambulatory cases, therefore rendering factors related to the patient or underlying disease largely irrelevant. The other shortcoming is that COVID-19 testing status is not taken into account in the model. Although one might assume that an untested person is positive, the increasing availability of rapid turnaround tests has already created the scenario in which relatively urgent operations are deferred for hours to a day or more in order to get a negative COVID-19 test. In short, the authors propose a useful intellectual framework for prioritizing time-sensitive surgical procedures, yet while the simplicity of assigning numbers and using them as a definitive metric is attractive, such an approach requires validation before it can be used widely.

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