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Shared Decision Making for Surgical Care in the Era of COVID-19

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Abstract

The global pandemic caused by severe acute respiratory syndrome coronavirus 2 has upended surgical practice. In an effort to preserve resources, mitigate risk, and maintain health system capacity, nonurgent surgeries have been deferred in many jurisdictions, with urgent procedures facing increasing wait times and unpredictability given potential future surges. Shared decision making, a process that integrates patient values and preferences with the scientific expertise of clinicians, may be of particular benefit during these unprecedented times. Aligning patient choices with their values, reducing unnecessary health care use, and promoting consistency between providers are now more critical than ever before. We review important aspects of shared decision making and provide guidance for its perioperative application during the coronavirus disease 2019 pandemic.

Keywords

shared decision making, COVID-19, pandemic

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The global coronavirus disease 2019 (COVID-19) pandemic has ushered unprecedented health system changes in efforts to combat the spread of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). In some instances, nonurgent surgeries have been indefinitely postponed. However, many operative procedures remain urgently essential and must be triaged accordingly. Due to patient-level variation, guidelines produced by national and international societies are nonspecific, and surgeons must operationalize them for unique situations.

Treatment paradigms are changing for many diseases, including a necessity to use nonsurgical treatments for “surgical” disease.¹ Given these alterations, many of which could result in adverse patient outcomes, optimizing patient-centered care and communication is essential. Ongoing consideration of how clinicians may best integrate patients into the decision-making process is important for providing high-quality patient-centered care throughout the pandemic.

Shared decision making allows patients and health care providers to make medical decisions together, integrating the

scientific expertise of the health care team and the values and preferences of the patient.² Shared decision making is a key approach to patient-centered care, one that improves communication between the patient and their providers. Shared decision making is often viewed from the perspective of elective decision making, where clinical equipoise exists. However, even where there is a clearly recommended intervention, shared decision making can improve alignment of patient preferences with their final treatment decision, such as in settings of advanced disease and palliative treatment, where patient preferences may not necessarily align with the best option for cure.³

Herein, we describe how shared decision making may improve patient, clinician, and system-level outcomes as they relate to COVID-19. There are 2 cornerstones to consider for this thesis: (1) shared decision making as it relates to surgery and (2) shared decision making during the COVID-19 pandemic (**Figure 1**).

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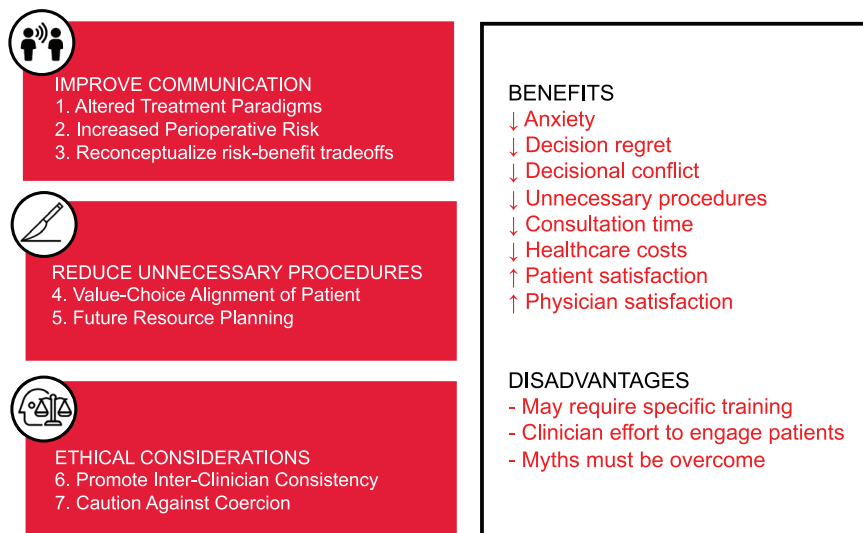


Figure 1. Shared decision making (SDM). (Left) Examples of shared decision-making benefits during the COVID-19 pandemic. (Right) General benefits and disadvantages of shared decision making.

Shared Decision Making in Surgery

Perioperative shared decision making is expected to reduce decisional conflict and regret, aligns patient choices, and reduces unnecessary resource use.⁴ The benefits of shared decision making in the surgical setting have been demonstrated across a variety of disciplines, including orthopedics, neurosurgery, general surgery, and otolaryngology.⁴

In a study of patients with symptomatic severe aortic stenosis, promotion of the shared decision-making process resulted in patients being more likely to choose medical treatment compared to surgical management, despite known mortality benefits of the latter.⁵ The use of decision aids reduces pursuit of major invasive elective surgeries of questionable benefit across surgical disciplines.⁶ For example, promotion of shared decision making has been shown to reduce elective hip and knee arthroplasty rates, resulting in decreased health system costs. Thus, shared decision making can be a useful model to optimize resource allocation, especially in times of substantial resource constraints.

Shared Decision Making During the COVID-19 Pandemic

Principles of shared decision making are essential for communicating necessary alterations to standard treatment paradigms. For example, patients with advanced head and neck cancer may require reconstruction with free tissue transfer. In the setting of COVID-19, some have advocated for less time- and resource-intensive reconstructive options or deferral of reconstruction altogether.⁷ Such decisions may improve immediate resource utilization but may come with worsened functional outcomes for patients—this is essential to communicate. Furthermore, the proportionality of risk associated with treatment options has been altered by COVID-19, and unilateral decisions made by clinicians to

limit certain treatment options altogether are appropriate under traditional tenets of public health ethics.

While nonurgent elective surgery is restricted, access to surgical care for advanced, life-threatening disease generally remains ongoing. In this setting, thorough discussion of the risks and benefits for the patient is key for aligning values and preferences. For pedagogical reasons, consider advanced pancreatic cancer, where frail, elderly patients may not truly wish to undergo major surgery, owing to significant morbidity and mortality associated with treatment. This is true generally but is especially important to realize during the pandemic, when resources must not be squandered. In the setting of advanced cancer, palliative care options may be appropriate, and discussion may be facilitated by improved shared decision-making processes. Advance care planning and documentation of end-of-life care preferences are also important during the pandemic, and evidence suggests shared decision making may encourage these practices.⁸

As the first wave of the COVID-19 pandemic flattens, operative resources are becoming available. There is a massive backlog of waitlist cases with varying degrees of urgency, and shared decision making will help reduce unnecessary resource use. Many of the conversations important in the initial, acute pandemic phase will remain during times of recovery. The second surge is also noteworthy and may again spark similar issues. Promotion of shared decision making during the initial acute phase will build experience with the process among health care providers and will establish shared decision making as a standard. Notably, shared decision making is an essential tool for clinicians but historically has been slow to implement and may require targeted training.

Conclusion

Incorporation of patient values and preferences with the medical expertise of the surgical team reflects contemporary

best practice. In the setting of the COVID-19 pandemic, the need for shared decision making has never been higher. Decisions that are optimal for specific patients, reductions in the use of undesired surgical procedures, and improved consistency of practice among clinicians are all essential, each of which may be an expected end result of the shared decision-making process.

Author Contributions

David Forner, conceptualization of the paper, data collection, manuscript preparation, approval of final manuscript; **Christopher W. Noel**, conceptualization of the paper, data collection, manuscript preparation, critical revision of the manuscript, approval of final manuscript; **Ryan Densmore**, data collection, manuscript preparation, critical revision of the manuscript, approval of final manuscript; **David P. Goldstein**, provision of expert opinion, critical revision of the manuscript, approval of final manuscript; **Martin Corsten**, provision of expert opinion, critical revision of the manuscript, approval of final manuscript; **Arwen H. Pieterse**, provision of expert opinion, critical revision of the manuscript, approval of final manuscript; **Andrew G. Shuman**, provision of expert opinion, critical revision of the manuscript, approval of final manuscript; **Paul Hong**, conceptualization of the paper provision of expert opinion, critical revision of the manuscript, approval of final manuscript; **Valeria E. Rac**, conceptualization of the paper provision of expert opinion, approval of final manuscript.

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