This study by Mentias et al reports the largest series of postoperative outcomes for noncardiac surgical treatment in patients with left ventricular assist devices (LVAD) to date, to our knowledge. Overall, 1326 patients with LVAD (16.3%) underwent subsequent noncardiac surgical treatment, most often general surgery (613 patients [46.2%]), followed by thoracic procedures (219 patients [16.5%]). Perioperative 30-day major adverse cardiovascular events (MACE; defined using composite of in-hospital mortality or 30-day all-cause mortality, ischemic stroke, or intracerebral hemorrhage) were directly tracked from the time from discharge from LVAD placement (<60 days vs ≥60 days) and whether the noncardiac surgical treatment was classified as urgent or emergent vs elective. Noncardiac procedures were overwhelmingly urgent or emergent (1000 procedures [75.4%]), with a 30-day MACE occurring in 169 patients (16.9%). Elective noncardiovascular procedures (326 procedures [24.6%]) also had a significant incidence of MACE, with 23 patients (7.6%) experiencing MACE. The survival curves for patients undergoing noncardiac surgical treatment compared with those who did not undergo surgical treatment diverge significantly well beyond the 30-day mark, suggesting an ongoing difference in mortality risk.

The perioperative MACE rate of 1 in 25 elective and 4 in 25 urgent or emergent noncardiac procedures among this population is a sobering statistic and should prompt serious discussion for clinicians caring for these complex patients. It should be noted that the study by Mentias et al excluded patients who died within the initial LVAD placement hospitalization period. Surgical outcomes in this cohort can also contribute important information for clinicians and patient decision-making, and we hope would be factored into future analyses.

Heart failure requiring mechanical circulatory support can be a life-limiting disease in the absence of transplant, with a 5-year survival rate of 23%. A 2020 publication by Kanwar et al reported on optimal LVAD outcome at 1 year postimplantation, defined as alive or transplanted, New York Heart Association (NYHA) functional class 1 or 2 at 1 year, no major adverse events (defined as events requiring unplanned hospitalization), and no more than 2 hospitalizations per year. Of 12,566 patients who received an LVAD between 2012 and 2016, only 3495 (27.8%) met the definition of optimal outcome at 1 year and 2070 (16.5%) had died.

The study by Mentias et al contributes significantly to the overall understanding of the high-risk nature of an operation in this population, and future analysis should work toward comprehensively capturing longer-term follow-up data. This work, interpreted in the context of current outcomes among patients with LAVD, should inform patient-centered decision-making in this population and has the potential to help guide thoughtful, effective communication among clinicians, families, and patients by informing our understanding of how any noncardiac procedures may shape quality of life for a patient after LVAD placement.

Curtis et al demonstrated that using an easy interventional tool, Jumpstart Tips, in primary care facilitated goals of care discussions in patients who are severely ill and increased the occurrence and quality of goals of care communications. In surgery, Schwarze et al have described the gap between the stated long-term goals of patients with high risk and the care they often received when faced with a high-risk surgical treatment. Despite genuine attempts by surgeons at shared decision-making, this is often not achieved owing to failure to situate the acute problem in the context of the patient’s overall health, to understand a patient’s preferences for health states beyond the acute...
decision between life or death, and finally, to make a recommendation when desired that accounted for the patient's goals, instead of merely leaving the decision up to the patient. The sum of these experiences suggests that it would be prudent to start and maintain communication among these complex patients with LVAD and their cardiology and primary care teams about their ongoing goals of care early after implantation and continue these conversations as their outcomes post-LVAD implantation evolve.

Strategically translating the conclusions of Mentias et al into a conversation about surgical treatment is vital to facilitate shared decision-making in the acute setting for these patients with high risk. The best case/worst case framework for guiding these discussions is one way to engage the patient in decision-making while maintaining attention to the patient's overall values and goals. Applying a framework, such as best case/worst case, to the data presented in the study by Mentias et al may help improve patient participation in their care and ultimately, patient- and family-reported outcomes in this population.

Communication between patients and clinicians is not the only place where careful conversation regarding the risks and benefits of noncardiac surgical treatment in LVAD patients is of value. Often, several nursing and physician teams are involved in the care of these patients, and at times, these teams are not always aligned about how to situate an acute illness and the possibility of noncardiac surgical treatment in the context of a patient's overall health. A number of studies have documented this disconnect, particularly in the acute setting, between surgical and intensivist teams and the resulting confusion for clinicians, patients, and families, alike. In teaching hospitals, trainees can often be the unfortunate collateral damage of this disconnect, as they can be excluded from communications in part because of a lack of trust and in an effort to improve efficiency in time-sensitive decision-making. Again, combining data on patient outcomes with a framework, like best case/worst case, can help ensure that residents, attending physicians, nurses, and multiple consultants are aligned when talking about a patient's clinical situation and the decision at hand. This helps instill confidence in the team and allows trainees to participate in these complicated conversations with patients and families.

In summary, the study by Mentias et al has provided useful data on short-term and some long-term outcomes after noncardiac surgical treatment in patients with LVAD. Translating these findings into the clinical setting necessitates a careful consideration of how to use data to inform meaningful conversations with patients, family members, and other clinicians, and previously validated frameworks, such as best case/worst case, and using communication tools, such as Jumpstart Tips, provide one such strategy.

ARTICLE INFORMATION
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