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Palliative Care Consultation Before Left Ventricular Assist Device Implantation

Dear Editor

In a recent article published in the *Journal of Pain and Symptom Management*, Chuzi et al.[1] report on palliative care (PC) consultations before left ventricular assist device (LVAD) implantation. The authors conclude that a one-time PC consultation immediately before implantation is insufficient to complete preparedness planning and to delineate patients' preferences and goals. The authors pointed out several reasons for this finding. The first is that PC consultations were offered acutely before surgery. The second is that PC clinicians may be unfamiliar with LVAD-related complications.

Acknowledging the suggestions by Dr. Chuzi, we would like to offer an additional perspective based on our experience. We started a mandatory PC consultation before LVAD implantation (preVAD) for both destination therapy and bridge to transplant in 2014.[2] A semistructured script to minimize the differences among PC clinicians was developed (Table 1), and to date, we have met with close to 300 patients for those who have already decided to undergo LVAD therapy. The content of the conversations is documented in the medical record descriptively. After LVAD implantation, PC is consulted whenever needed, when there are catastrophic events or concerns about the overall condition (i.e., repeated hospitalizations or declining functional status). We agree that it would be ideal for preVAD to be operationalized much earlier before LVAD implantation. However, given the disease trajectory of heart failure, which can deteriorate very quickly, and thus requires relatively acute decision-making, it is challenging for that to happen in all cases. Indeed, we have found that preVAD occurred only 3 days (median) before implantation surgery.[2] We have also encountered many patients who are in the intensive care unit and are expecting surgery the next day. Providing a consultation in this setting could be overwhelming and counterproductive. Nonetheless, in our study, where we examined if patients could respond to questions of 3 and 5 in a semistructured script (Table 1), all the patients were still able to express what makes their life meaningful. In addition, 92% could discuss possible complications of LVAD therapy, and 70% could articulate what would be an unacceptable health state.[2]

We believe that our intervention using a semistructured script worked well because it does not necessarily focus on the specific medical intervention or life-sustaining treatments but rather focuses more on the conditions of what would be a meaningful life, and what are the underlying values and goals of the patient. As we have noticed with advance directives, it is difficult for patients to understand the specific interventions (e.g., mechanical ventilation, renal replacement therapy, or blood transfusions) in the inherently more complex medical state when they need to make such decisions.[3] Furthermore, as shown by the authors,[1] it would be even more overwhelming for patients in that emotionally charged situation to consider the possibility of device malfunction or other progressive comorbid condition, such as old age or malignancy. Regardless of the reason of deterioration, such as LVAD-associated complications, device malfunctions, or progressive complications, decisions about the goals of care would ultimately come down to the patients' attitudes toward his/her quality of life, beliefs about suffering, tradeoffs, and what is an unacceptable state; and this is inherently subjective and unique to the specific patient. In addition, this approach would not necessarily require clinicians to be familiar with all

Table 1
Semistructured Script for PreVAD Evaluation

PreVAD Evaluation
1. Patient comfort
2. Patient and family understanding of LVAD therapy
a. When did you hear about LVAD?
b. How did you feel about LVAD as your treatment option?
c. Is that BTT or DT?
3. Patient goals and expectations
a. What makes your life meaningful? What is your quality of life?
b. What are you hoping to achieve by getting a VAD? What are things you look forward to doing after getting your LVAD?
4. Spiritual needs (FICA tool)[a]
a. Are you a spiritual person? Are you religious?
b. How important is it?
c. What role do your beliefs play in regaining your health? Are you part of a spiritual or religious community?
d. How would you like your health care provider to address these issues in your health care?
5. Possible complications and exploration of unacceptable conditions
a. Having an LVAD can cause its own problems, such as stroke or infection. What if things don't go well?
b. These complications can cause significant disability and keep you from achieving your goals.
c. What is the condition you would find unacceptable?
d. Debilitative comorbid conditions (not associated with an LVAD. Rather, caused because an LVAD prolongs survival)
e. Having an LVAD as DT means that you are going to live with that pump for the rest of your life. The better you do with an LVAD, the more possibility you are going to have problems, such as cancer or dementia. They can become greater issues than heart failure.
f. Are you aware that you can turn off the LVAD at any future point if it no longer meets your goals of care?
6. Discussion-making and information sharing preferences
a. Who is your health care agent? Have you discussed the above with that person?

LVAD, left ventricular assist device; BTT, bridge to transplant; DT, destination therapy.
[a]FICA tool (Borneman T, Ferrell B, Puchalski CM. Evaluation of the FICA Tool for Spiritual Assessment. J Pain Symptom Manage 2010; 40:163-73).

LVAD-specific complications and could apply to other high-risk surgeries as well.

That being said, we still do not know how a preVAD intervention affects short- or long-term clinical outcomes. We suspect that the process of conducting a preVAD intervention, by itself, would probably not be sufficient to make a significant difference, but it could make PC more familiar to both LVAD teams and patients, so that the interdisciplinary PC team has more collaboration with the LVAD team when the patient's clinical condition deteriorates.

Indeed, although we cannot establish causality with our data, PC consultations in the last month of life significantly increased after our preVAD intervention was started and that seemed associated with less life-sustaining treatments in the last week of life and less deaths in the intensive care units.[4]

Although we believe a preVAD intervention is beneficial for LVAD patients, we also think that having this conversation right before LVAD surgery is not ideal. Unpublished analysis of our preliminary data showed that 24% of patients had not heard about LVADs until a week before the preVAD conversation. When we asked patients about their unacceptable health states, some of them expressed that they never thought about this question. Thus, one of the reasons why a preVAD intervention is challenging is that it often happens too late. As the authors suggested, utilizing a tool like a pamphlet or video decision aids would be one solution.[5] Furthermore, to start the advance care planning conversation at an even earlier point of disease trajectory of heart failure would be another way to address this problem.[6] By normalizing and generalizing advance care planning in this population, we believe preVAD conversations would be more fruitful and meaningful.

Shunichi Nakagawa, MD
Craig D. Blinderman, MD, MA, FAAHPM
Adult Palliative Care Service
Department of Medicine
Columbia University Medical Center
New York, New York
USA
E-mail: sn2573@cumc.columbia.edu

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Authors' Response

To the Editor

It is with great enthusiasm that we read the letter written by Nakagawa and Blinderman in response to our study "Pre–Ventricular Assist Device Palliative Care Consultation: A Qualitative Analysis." Our study concluded that one-time palliative care (PC) consultations before implantation of destination-therapy ventricular assist device do not lead to completion of preparedness planning or even general PC assessment at our institution. We suggested a number of potential explanations for this finding, including the short time between PC consultation and surgery, a lack of consensus among the PC and heart failure teams about the purpose of the PC consult and what preparedness planning should entail, and finally a lack of familiarity with left ventricular assist device (LVAD)–related complications among members of the PC team. The letter describes the authors' more positive experience with mandatory PC consultations before LVAD implantation at their institution, which they attribute to their use of a semistructured script for these consultations. We appreciate the opportunity to address select points in their letter, as well as to put forth our own ideas about how to further improve preparedness planning for patients with advanced heart failure.

1. We agree with the authors that integrating PC and advance care planning into the preimplantation process for VAD patients is necessary but challenging. The trajectory of heart disease can be unpredictable, which often leads to last-minute decisions about mechanical circulatory support and thus late involvement of PC and missed opportunities to delineate patient goals and priorities. We should strive to develop innovative ways to assimilate preparedness planning into the care of preVAD patients although it is not always feasible for it to occur early and when patients are stable.
2. A major challenge to implementing "preparedness planning" before VAD is that it is not entirely clear what this type of planning should entail and which members of the VAD care team should perform it. Swetz et al.[1] have outlined four major components of preparedness planning, which are discussions of 1) possible device failure, 2) post-VAD health-related quality of life, 3) device complications, and 4) progressive comorbid conditions. We analyzed our PC notes for documents of these elements of preparedness planning.[2] These may or may not be the most important elements to discuss with patients before VAD. As an example, the letter describes the use of a script for preparedness planning that includes slightly different elements, including a discussion of spiritual needs and what makes the patient's life meaningful but does not discuss device failure.[3] This highlights the fact that there remains a lack of consensus about the purpose of the preVAD evaluation and what it should entail. Furthermore, some may argue that it should not be the role of the PC team to discuss device failure or device-related complications, even if the discussion centers around the contingency plan if these events were to occur, but rather it should be the role of the surgeon or advanced heart failure physician.
3. The authors describe their experience with PC consultation before LVAD implantation using a semistructured interview script.[3] They noted that despite the fact that the consults occurred a median of 3 days before surgery, patients were still able and willing to participate in the interview and could discuss possible complications of LVAD therapy, articulate unacceptable health states, and express what makes their life meaningful. These findings reinforce the vast heterogeneity of centers' experience with PC in the advanced heart failure population.[2] It is possible that standardizing the preVAD intervention leads to greater engagement and comfort on behalf of the PC physicians and gives them a better sense of the purpose of the visit. Patients may also feel more comfortable knowing that this visit is standardized for all, as opposed to a harbinger of possible bad outcomes. Despite not knowing whether this intervention affected short- or long-term outcomes, we are encouraged by the fact that PC consultations in the last month of life significantly increased after the preVAD intervention was implemented at the authors' institution. Furthermore, there was a potential association with fewer life-sustaining treatments in the last week of life.[4] Although ascertaining and documenting patient goals and values before VAD is certainly valuable, another benefit of these consults seems to be that patients and/or the VAD team were more inclined to re-engage PC toward the end of life.
4. Standardizing the preVAD PC visit is one way to improve patient and physician experience. Training VAD team members (including advanced heart failure physicians, nurse practitioners, and coordinators) to complete preparedness planning and discuss advance care planning may also be an