(*The*) Echocardiographee

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POINT OF VIEW

Two different people, two different places
Through a one-way window with two different faces
Agreements are not reached, favors are forgotten
The other person's shoes, you've not got in
Blink-182 (1993; Flyswatter; by Tom DeLonge, Mark Hoppus, and Scott Raynor)

I believe that many of us who read this serve in the roles of both mentors and mentees, and through the participation of the one, we are greatly informed of the other. As a mentor, you quickly develop a sense of responsibility for the mentee's progress and eventual success. Similarly, as a mentee, you have an important perspective that helps advance your abilities to succeed as a mentor. In that mentee role, you quickly come to understand the different styles of accomplished mentorship. Your individual progress and success can often be credited to the guidance and direction from your mentor.

Therefore, using this mentor/mentee relational concept, it should be a simple derivation that as echocardiographers, we should consider the *point of view* of the echocardiographee. The person receiving this medical procedure has much to offer us in how we operate and the product we deliver. In fact, without this *point of view,* we limit ourselves the same way the mentor ignores their understanding from the self-perspective of being a mentee. I recognize that many of us have been patients (or research subjects) who have actually received medical procedures (including echocardiography), but it is doubtful that all of us are in a position to benefit from that unique insight to pull from.

For the purpose of using this editorial space to address this concept, I use 'echocardiographee' very loosely to serve as the person receiving (any) procedure and 'echocardiographer' generically to serve as the person providing (any) procedure.

Last week, I was fortunate to have been invited to a meeting of the Family Advisory Council. These highly diverse, highly engaged, past and current patients openly meet to provide us with their perspective, their *point of view*. I had the privilege of hearing from young and old, men and women, patients and spouses. They told me about their individual medical journeys that stemmed from being a life-long echocardiographee with coronary artery disease, multiple infarcts, bypass surgery, arrhythmia ablations, end-stage heart failure, and successful orthotopic heart transplantation. Another individual echocardiographee from the other end of this disease spectrum discussed their frustration with the limitations of diagnostic abilities and expertise that resulted in lengthy misunderstood complaints, missed diagnosis of cardiac syndrome X, and mislabeling a medical disease as a psychological illness. They even recounted a (sad) medical encounter that they experienced after their diagnosis in which the physician stated: "That is a diagnosis we can't make until you've died." (Note: this individual has now become a patient advocate for microvascular coronary disease and humorously pondered whether they should receive a commission for their many referrals).

These echocardiographees gave many examples for this echocardiographer to improve how to obtain informed consent. They openly disliked conversations around success rates and complications rates which were difficult to fully understand or place into relevant perspectives for their individual circumstances. They raised suspicion around the differences between a procedural complication versus a failed procedure and reminded this echocardiographer that we should be as clear as possible when 'things don't go as anticipated' for the echocardiographee.

There was a common feeling of being rushed, whether in clinic or during procedures. One striking comment was that they don't feel respected and their comments are 'brushed-off' until they say something perceived to be intelligent or emphasize their own educational background ("I graduated from the University of XXX"). They also added that this feeling of being disregarded may be more common when coming from a male echocardiographer to a female echocardiographee.

During our meeting, I came prepared to discuss the Choosing Wisely Campaign (ABIM Foundation Initiative) which was established to "engage in conversations about the appropriate use of medical procedures" including echocardiography.[1] I listed a few of the common referrals for echocardiography that are not supported by available evidence (previously *unnecessary*; currently *rarely appropriate*) and commented that as the echocardiographee, they should speak up and ask questions.[2-4] I also highlighted the Echo WISELY publication.[5] In this cleverly designed study, the authors stratified echocardiographers into those who perform the most versus the least percentage of *rarely appropriate* echocardiograms. They then compared the clinical impact to the echocardiographee with heart failure who was cared for by these echocardiographers. What they found extended beyond the simple fact of a practice that performs excessive testing. One might have presumed this group would have improved clinical outcomes since the echocardiographers performing these extra-tests were simply trying to be most informed in caring for them. Instead, the Echo WISELY report highlighted that these echocardiographees, those receiving the extra testing, actually received *less* evidence-based treatment and *less* evidence-based interventions compared to the echocardiographees who received the 'appropriate' amount of testing.

This resulted in a fascinating subsequent discussion about the role of the echocardiographee who, in today's clinic environment, has very limited time with the physician to ask all of the questions they would like. One echocardiographee, who was mostly quiet and reserved, asked this very pointed question during our meeting (to paraphrase): "Since we are now being more commonly asked to participate in the decision-making process and offer our goals of care in a changing healthcare environment, are the newer generation of echocardiographers being taught this?" That comment was very interesting to

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this older generation echocardiographer who has known for many years that there is a difference in younger echocardiographees compared with older echocardiographees. To characterize, very superficially, it is my experience that the older generation are more inclined to be deferential and ask fewer questions. However, it is primarily this group where goals of care discussions are so meaningful. Encouraging all generations of echocardiographees to ask more questions would seem to be a highly appropriate stance.

I remain an advocate for continuously assessing our appropriate use indications, not for any insurance-based, pre-authorization standard, but for the simple fact that we practice in an ever-changing environment where our understanding of the impact of diagnostic testing is constantly evolving. I also greatly appreciate the previous efforts from our medical (imaging) societies via the Choosing Wisely campaigns to inform more echocardiographees about their options. However, there is much opportunity to improve upon this initiative.

At a minimum, we should more openly engage our patients and their families about their important role(s) in medical decision making. We should promote wise choices by echocardiographers though our education about the potential negative impact of over-testing. We should use our electronic health records that connect echocardiographers with echocardiographees as a tool to educate regarding what questions they should ask (e.g. How will this test change how I am being managed? Is there an alternative testing strategy? What would be the care plan if I don't have this test?). Beyond being steps to help reduce the excessive, unproven costs of the US healthcare system, this approach should result in greater engagement, improved patient-centered care, and if the Echo WISELY report is reproduced by others, may even improve patient outcomes.

We ended the Family Advisory Council meeting by addressing some of their various specific experiences from echocardiography. When I asked them about access to their medical reports they all stated: "Why can't physicians speak in simple English?" And "You need to be a physician to read an echo report." They frequently turned to Dr. Google in an attempt to gain a better understanding of the words on the reports. They asked us to be more rapid in our feedback and discussions regarding test results.

I specifically asked how they felt about not being told what the sonographer was seeing on the display and to an individual, they all said they fully understand that the sonographer is no longer *allowed* to provide any insights into what they are seeing (but, they also fondly recounted a remembered past time when it was common to be provided with some preliminary information).

In this month's issue of CASE, there are seemingly endless opportunities to consider the *point of view* of the echocardiographee. Foster *et al.* in Multidirectional Blood Flow During Cardiopulmonary Bypass Mimicking an Iatrogenic Aortic Dissection During Transesophageal Echocardiographic Examination do a phenomenal job of carefully illustrating a not uncommon Doppler artifact that results in the potentially devastating misdiagnosis of an aortic dissection. They educate our community through their carefully approached understanding of the artifact generation and then manipulating the cardiopulmonary bypass (CPB) circulatory flows during TEE image acquisition. This demonstration of how multidirectional blood flow within the thoracic aorta during CPB can mimic an aortic dissection should be kept as a teaching CASE example for anyone being trained to perform intraoperative TEE.

In Hypoxemia Resulting From a Cascade of Postoperative Events Starting With Iatrogenic Right Ventricular Ischemia, Wang *et al.* describe the sequence of intraoperative clinical events that resulted in severe hypoxemia during aortic valve surgery. Once again, these authors demonstrate to readers how to use TEE to inform us on the diagnostic approach to investigate new clinical events. Their report includes a very nice graphical illustration of aortic aneurysm repairs which should help echocardiographers more fully understand potential post-operative images. Their cascade of events stemming from iatrogenic coronary occlusion, to acute right ventricular dysfunction and then elevated right heart pressures, leading to shunting via a stretched patent foramen ovale is quite informative.

Fahim *et al.* nicely describe the echo findings in an adult with a double-chambered right ventricle once again reminding us that you are *Never Too Young or Too Old to be Diagnosed with Congenital Heart Disease*. Their report includes excellent correlative CMR images further enhancing our echo insights. Stevenson *et al.* reported on a patient with a pseudoaneurysm found on vascular ultrasound that uniquely had a second pseudoaneurysm arising from the first. They described their ultrasound approach to making the diagnosis as well as the use of ultrasound-guided thrombin injection to treat it.

Abugrin *et al.* remind us that serial TEE is important after placement of a left atrial appendage occlusion (LAAO) device. In their CASE, the patient presented with an embolic event after missing their appointed follow up TEE which later demonstrated a device-related thrombus within the left atrium. Reports such as these help us to inform echocardiographees.

In an attempt to summarize our evening together, an echocardiographee reminded me of a relevant Cool Hand Luke quote (from Captain): "What we've got here is failure to communicate."[6] We all laughed. I couldn't agree more.

In conclusion, as was bound to happen whenever you speak to anyone about their personal experience as an echocardiographee, someone mentioned *cold* gel on their chest and what an unpleasant shock to the system that can be. This was quickly followed by the pleasant recounting of other echocardiographees' experiences when the study was performed using *warm* gel from a gel warmer. This option seemed to stun some council members. I chose not to point out the differences in the experience as a sonographer between cold and warm gel.

So, remain on the lookout for all opportunities to better understand the *point of view* of the echocardiographee while using our role as echocardiographers to educate our most important stake holders. Or as Blink-182 sings: *"The other person's shoes, you've not got in."*

And remember, every echo you see today has a teaching point; and every teaching point is a potential new CASE report!

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