brain death, a good number of clinicians and ethics committee members across our system were slow to warm to the idea and expressed several concerns, both logistical and ethical, about the practice. Through education and ongoing dialogue we reached consensus on the general ethical acceptability of DCD and from there we attempted to develop a template DCD policy that addressed the concerns that were raised. With the help of the organ procurement organizations, or OPOs, that service our hospitals, we succeeded in accomplishing this. Shortly thereafter, DCD policies were in place in most of our facilities that provide transplant services.

This would seem to be the end of the story. However, another concern soon surfaced as one of our OPOs inserted a new feature into its DCD protocol calling for the administration of heparin prior to death, which it had intentionally left out when we first established our template policy. The rationale for doing this was quite straightforward: heparin, given before death, could potentially improve transplant outcomes by allowing the organs to be sufficiently profused and thus preventing blood clots that would render the organs nonviable for transplant. While understandable, the concern among some of our clinicians and ethics committee members centered on two primary issues, namely: 1) heparin is administered in the hopes of improving transplant outcomes and not for the benefit of the patient; and 2) the use of heparin in typical DCD candidates—usually patients with severe head trauma—could cause or exacerbate intracranial bleeding and possibly even hasten death in rare cases.

Through more dialogue we were able to come to an understanding across our system on the first of these two issues. Starting from the premise that acts of charity are often accompanied by personal sacrifices, we agreed that it wasn’t out of the question for DCD patient donors to undergo procedures or receive medications that were not directly beneficial to them, provided that they did not involve disproportionate risks and explicit informed consent was obtained. With this established, we moved to a discussion of whether the administration of heparin presented a disproportionate risk. This inevitably led us to the dosage question, which ultimately proved too difficult to achieve system-wide consensus. Many of our facilities with policies on DCD accepted the suggested dosage of one of our OPOs, that being, 5,000 units per 70 kg not to exceed 10,000 units (or roughly 71 units per 1 kg). Other facilities thought this was too high and instead left it at doses not to exceed normal ranges and at the discretion of the attending and/or treating physician.

This worked for a time until the same OPO that first introduced heparin into the mix increased the amount of its dosage to 400 units per 1 kg, which far exceeded the previous guideline. All sorts of red flags were raised and once again people within our system were questioning whether we should be engaged in DCD at all. The most persistent criticism that I heard from those in the field was that the OPO seemed to be more concerned about transplant outcomes than it was with the welfare of our patient donors. Because of this, we considered placing a moratorium on our DCD policies until we could come to some sort of resolution regarding the
appropriate amount of heparin to be given. Before we did anything rash, though, we asked the OPO to provide evidence validating the safety and efficacy of the increased dose. It could not do this because there is little more than anecdotal evidence in the literature indicating that heparin given at 400 units per 1 kg prior to death in DCD settings is safe or even that it improves transplant outcomes. In fairness, though, there is really nothing in the literature indicating that heparin given in such high doses is unsafe in that it increases the risk of bleeding or possibly even hastens death in rare cases.*

What we were reacting to more was a general feeling of unease among our clinicians and the combined weight of their years of clinical experience. In addition to this, we were also thinking first and foremost about our patients, who ought always to be our primary concern, and we were also operating under the precautionary principle. This principle, which has its roots in environmental ethics, says that the burden of proof is on one who might cause harm through one's action to show that it does not, rather than on another to show that one's action does in fact cause harm. In the present context, this means that OPOs must prove to us that excessive doses of heparin, like 400 units per 1 kg, do not harm patient donors, rather than on us to prove that such doses do in fact cause harm. Since our OPOs could not do this, we simply recommended to our hospitals that they either suspend their DCD policies indefinitely or continue to operate under the previously established policy. Most chose the latter and as we moved forward we kept the lines of communication open with the OPOs.

With all this as background, I'd now like to recount what developed recently at a meeting between representatives of the OPO I mentioned above (which is the OPO that upped the dose of heparin to 400 units per 1 kg) and clinicians and ethics committee members from one of our hospitals. I think we came to an important agreement that other Catholic hospitals struggling with the issue of heparin in DCD settings may find helpful. During the meeting, which was very collegial and candid, we expressed our concerns over the increase in the heparin dose, while they explained the rationale behind it and pointed out how most other OPOs were adopting the same guideline or something close to it. We also pointed out how we felt that they were seemingly more interested in transplant outcomes than patient care, while they assured us that the care of the patient donor was their main focus.

With this behind us, and after having made it clear that we were not going to acquiesce to the 400 units per 1 kg dose of heparin without solid evidence sup-