Invasive Pediatric Procedures by Physicians-in-Training: Recommendations on Consent and Oversight by a Community Bioethics Forum

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Abstract

Yale University's Community Bioethics Forum, under the auspices of The Program for Biomedical Ethics at The Yale School of Medicine, in response to a request by the school's Department of Pediatrics, conducted a study to determine whether parental consent is necessary when a physician-in-training desires to perform an invasive procedure on a newborn that s/he has never performed before. After consultation and discussion the Forum unanimously recommends: (a) seeking parental consent when a physician-in-training desires to perform an invasive procedure for the first time; (b) initiating studies that subdivide and analyze medical errors by training status, to enable the medical team to give a meaningful presentation of the risks to the parent; (c) reinstituting the practice of learning invasive procedures on deceased infants; and (d) enhancing standard oversight and support procedures for physicians-in-training.

Background

The hands-on experience crucial to becoming a competent pediatrician necessitates that physicians-in-training conduct invasive procedures on infants.[3] These procedures are a widely accepted practice.[4] Historically, physicians-in-training learned these procedures on newly deceased infants. As a rule, parental consent was not sought, but as informed consent became the usual prerequisite to treatment, parental consent also became the norm, prior to utilizing a deceased child for training purposes. However, after the death of a child, and the parental anguish that attends such an event, most physicians were and remain hesitant to seek consent.[5] Thus, in an era of informed consent, physicians-in-training find fewer opportunities to develop critical skills. Consequently, the first time a physician-in-training performs an invasive procedure, they likely perform it on a newborn in need of the procedure.

When a medical team asks parental permission for a physician-in-training to perform an invasive procedure for the first time, many parents deny the request, citing as the most frequent reason, they want the more experienced physician to perform the procedure. This creates a tension between the need for the physician-in-training to learn crucial procedures, and the need for informed consent, an essential element of medical ethics.

To help parse through this issue, physicians from The Yale Pediatrics Department asked the Forum to study and consider the following questions:

> *Should parental consent be sought when a physician-in-training would like to perform an invasive procedure on a newborn for the very first time?*
>
> *Should a physician-in-training inform a parent that s/he is performing a procedure for the first time?*

Forum Process

Members of the Forum spent many hours learning about this topic. As with many of the Forum's consults, this project involved a lengthy period of reading, individual contemplation, and discussion. Members reviewed the literature, discussed specific cases, and had face-to-face meetings with local experts.

Members spent time speaking with their families, neighbors, coworkers and professional associates. Several members have children, some of whom have been diagnosed with a disability or have had short stays in a neonatal ICU. Many serve as primary care providers for children, aging parents, and relatives. All of our members have witnessed the vulnerability of a child and how a parent instinctively protects and advocates on their children's behalf.

While it became clear during discussions that the members have had generally positive experiences with the medical community (and are humbled by the level of dedication required by the profession), as a group, surprisingly we discovered that most of us have had one or more negative experiences with physicians-in-training. We reflected on these experiences and discussed them among ourselves.

We spoke at length about the conflict between the public health need for training physicians and the individual's desire to receive the most experienced care, especially when it comes to care of their children. We recognized the critical public health need for well-trained physicians, which entails hands-on experience. And, since physicians learn medical procedure practicing on others, every physician must have a first patient for every learned procedure. We also acknowledged the personal desire to protect our loved ones from harm.

We also reflected on our own professions and how we too repeatedly have to learn new, often complex procedures to remain competent, and therefore we appreciate the needs of physicians-in-training, who must practice in order to learn vital skills and maintain competency.

Following our oral discussions, the Forum Chair drafted a survey and distributed it among the members (see Appendix). Members responded to the survey, and many included personal narratives of their encounters with physicians-in-training. The Forum Chair then distributed a compilation of responses to the group. Group members reflected on this summary document, which led a minority of members to shift their positions, citing a deeper insight into the patient/family experience. The Chair then prepared this report to communicate the group's final recommendations.

Findings

Parental Consent

To reiterate, physicians from The Yale Pediatrics Department posed the questions:

> *Should parental consent be sought when a physician-in-training would like to perform an invasive procedure on a newborn for the very first time?*
>
> *Should a physician-in-training inform a parent that s/he is performing a procedure for the first time?*

The survey found that a decided majority responded to both questions in the affirmative. The process of learning about member experiences (communicated via the survey) led some members to revise their final recommendations: those who responded in the negative then decided to advocate for increased protections. Thus, Forum members are unanimous in stating:

> *Parental consent must be sought when a physician-in-training would like to perform an invasive procedure on a newborn for the very first time – meaning that training status must be disclosed, and;*
>
> *A physician-in-training must inform a parent that s/he is performing a procedure for the first time.*

Forum members agree that "consent is the necessary precondition of all medical touching… Every instance of medical touching for which a legal consent has not been granted… [is] often a crime against the community, and always a private wrong, or tort, against the person touched."[6]

Members' views align with that of the Joint Commission of Accreditation of Healthcare Organizations, which states that patients should be informed of the professional status of individuals performing procedures. One member stated:

> *"[Parents] have the right to refuse care for themselves, they should have the right to refuse who is caring for their children, especially a newborn and especially with regard to an invasive procedure. The status of the person performing the procedure will directly affect the outcomes and risks."*

The first time a physician-in-training tries a procedure is significant because there are unknowns. Especially because procedures are no longer practiced on the newly deceased, there are uncertainties that are not currently systematically documented and analyzed. One member stated:

> *"A parent has the right to weigh those factors and request a lower risk option."*

Overall Trends in Survey Responses

Members were asked whether they would consent to an invasive procedure by a physician-in-training on their infant for the very first time, and whether they ought to be informed of first-time status. Forum members are diverse with respect to many factors, including age, occupation, socio-economic status, race, and religion. Yet, none of these factors appear to account for the variation in initial responses to the survey. Upon close examination, a trend emerged: those who have had positive (or no negative experiences) as a patient/family member were much more willing to consent to an invasive procedure by a physician-in-training on their infant for the very first time. Some members of the committee have had good experiences with physicians-in-training. One member recalled such an experience:

> *"When a physician in training was going to do a procedure – for the first time - on my mother, my sister and I agreed because the attending physician was going to be right next to him, and we agreed that he would guide the physician-in-training or intervene only if needed."*

Some quotes from members who had negative experiences include:

> *"I have allowed it in the past with my child (not a newborn) and it was disastrous. I would never put a child of mine through that again."*

"I have had at least three procedures in life… where physician-in-training assisted, and they were negative experiences or at best humiliating."

"I have had terrible experiences with physicians-in-training doing procedures on my children. There are no factors that would influence me to allow one to do a procedure on my newborn. Ever. My child is not an experiment. I recognize that one needs to do the procedures to learn. I am just not willing for that to be my child again."

"[My child's experience] was horrendous…I didn't know…until later that it didn't have to be that way."

One member, whose child was rushed to an emergency department, indicated that:

"She [her child]…was rushed [in] with internal bleeding and pain. They allowed a [physician-in-training] to try seven times to put an IV into my screaming child. She was terrified… screaming, "Help me, Mommy! No more, please, Mommy!" Finally, I made them stop. I can't believe I waited so long. They had the attending do it in one try with no pain."

It is again worth noting that neither age, race, experience with the medical system, nor experience with physicians-in-training were elements related to a member's initial response to the Pediatrics Department's inquiries. We found that past medical experience, whether positive or negative, correlated strongly with a member's response: if one had one or more negative experiences with a physician-in-training, they were less likely to allow other physicians-in-training access to themselves or their family. Thus we concluded that patients place a high value on trust in the physician/patient relationship. Once that trust weakens, committee members expressed the view that they found it difficult to reverse their sentiments, even when treated in the most respected medical institutions.

Further, some of these member-parents spoke about their guilt and how they harbor feelings that they let their children down and perhaps failed as parents. We conclude that a parent's confidence may suffer from these interactions.

Context

Most members agreed with the following survey statements:

"I would be more likely to allow a physician-in-training to perform an invasive procedure on my newborn child - for the first time- if…"

… the attending physician spoke with me and expressed their confidence in the physician-in-training's abilities;

… the attending physician told me s/he would be present to supervise, and would intervene if needed;

… I had a good understanding of the risks of the procedure;

… I knew the physician-in-training had performed the procedure before via a computer simulation;

… I knew the physician-in-training had performed the procedure before on a newly deceased infant.

Thus we recommend that these points are shared with families, as appropriate.

Trust

Our members spoke of the pact of trust that is critical to the physician-patient relationship. One member stated:

> *"I am a wary consumer of medical treatment… The analogy is being put into the position of a passenger in a jet liner. The passenger has no control over the airline system or the pilots flying the plane. We succumb to our powerlessness and bow down before forces that are invisible, abstract. We hope that the physician is an ethical person. When my parents passed, I was in a position to advocate for them, and the central question in each case was: "Is this what you would do if it were a family member close to you?" Whether they were truthful, who knows."*

Members discussed the difficulty recovering from a breakdown in trust. For instance, if a physician-in-training misrepresented their level of experience, they would be less likely to trust future conversations, not only with that doctor, but with others at the same institution. Thus they refer to the fragility of the relationship, and the importance of not misrepresenting experience levels.

Members also spoke of the importance of respecting the parent's decision-making. One member whose child had a negative experience with physicians-in-training stated:

> *"The following speaks the most clearly to me personally:*
>
> *'Respect for autonomy signifies an obligation to health care professionals of respecting the decision making capabilities of the patients. It also denotes provision of choices and alternatives to patients so that they can practice self-determination.'*
>
> *It comes from of place in me of wanting to be respected as an individual who can make informed decisions about myself and my children.*
>
> *I also feel that people have the right to refuse to let their children be the test subjects."*

Another member stated:

> *"The ethos… or character… that a parent may attribute to the physician is a key factor in deciding whether to allow a physician-in-training to conduct a new procedure. "If [the parents] go along with a physician-in-training, it would seem it's because the physician has overcome the bias associated with other sympathies and fears as regards the well-being of their children."*

One of the members who did not have a negative experience with physicians was one of the few members to initially believe that parents should not have the option refuse a trainee. This member was concerned about the articles presented about under-prepared residents performing procedures, and stated:

> *There's an ethical obligation on the attending to ensure that [physicians-in-training] aren't doing procedures without adequate supervision, and aren't doing procedures solo unless & until the attending is confident that the [physicians-in-training] has mastered it… I… do assume a 'perfect world' of adequate training for new docs, & maybe that is really naive - but, in a nutshell, if training isn't adequate, they shouldn't be allowed to operate, & if it is adequate, then patients shouldn't be allowed to refuse… I don't mean to be naïve & assume that [physicians] are always experts, but it seems to*

> *me that an attending shouldn't offer to have [physicians-in-training] perform the operation until they're confident in [them] – and if they are, then no patient should have veto power…*
>
> *It shouldn't take a tragedy, or lawsuit, to ensure that medical training is sufficient for [physicians-in-training] – but I imagine that it may take several tragedies & suits.*

Another member stated,

> *When my newborn was in the NICU, the head nurse overrode some things I specifically asked for. It wasn't anything that hurt my baby, but her actions kind-of made me feel invalidated as a new parent. After that, I stayed close to the NICU, trying to guard against other things happening without my consent. I just didn't know how to talk to them, and I didn't know what else they would do.*

Recommendations

1. Consent

As discussed, members unanimously agreed that parental consent must be sought when a physician-in-training desires to perform an invasive procedure that s/he has never performed before. Members also unanimously agree that trainee status ought to be disclosed during the consent process. And, if the physician-in-training has never performed the procedure before, that first-time status ought to be disclosed.

While the consult request specifically refers to procedures on newborns, we find that consent must be sought – and trainee status disclosed - for patients of all ages.

2. Medical Errors by Training Status: A Call for Meaningful Presentation of Risks in the Informed Consent Process

Good communication with patients during the informed consent conversation can increase trust between patients and physicians.[7,8] A key component of informed consent is the disclosure of benefits and risks. Although the risks of invasive pediatric procedures have been surveyed, reports do not subdivide incidence rates by training status. Thus, risks cannot be accurately communicated and parents are unable to reliably assess the added risk associated with a trainee-performed procedure. Without adequate knowledge, parents tend to err on the side of protecting their children. Clearly, a need exists for studies that subdivide and analyze medical errors by training status. These studies would enable the medical team to give a meaningful presentation of the risks to the parent, and allow the parent to make a decision based on facts.

3. Consider Reinstituting the Practice of Developing Invasive Procedure Skills on Newly Deceased Infants

Policy dealing with the development of physician-in-training skills on newborns should not be driven by extraneous pressures. In this regard, one member stated,

> *"I think that there should be policy on [training young physicians], and it should not be driven by manufactured or controlled physician shortages. There must be a sufficient number of qualified physicians, so that we do not have to resort to physician-in-training, under the guise that this is how they come to improve their skills."*

Forum members largely agree with and recommend extensive training before conducting procedures on newborns. One member offered this perspective:

> *"This person, as a trainee, should be one who has stood… by the skilled physician for such an extended time that he/she transitions seamlessly to the position of responsibility, so one is never in a position of having to come at any solo procedure, as a physician-in-training."*

Parents who lose a child often experience an intense need to attribute meaning to their child's life and death.[9] Many parents who choose to donate their child's organs find meaning in the act of donation.[10] We see parallels between parents whose children are eligible for organ donation, and parents whose children are eligible for post-mortem invasive procedures. While the task of approaching the parents of newly deceased infants is daunting,[11] we see fine examples from seasoned physicians who understand how to approach families to request permission for an invasive procedure.[12] We also see evidence of parents who do consent, including one study in which 73% of parents gave permission for intubation of their newly deceased infant.[13] Many will consent, it seems, if adequate information is provided.[14] We also have found support for consented postmortem procedures by the Council on Ethical and Judicial Affairs of the American Medical Association.[15] Thus we encourage the medical community to pursue this option.

One study found 37% of families had *not been* solicited to donate their deceased child's organs, but indicated the families' willingness to have done so had they been asked. [16] The point suggests that we, as parents and community members, desire to be included in the decision-making process.

4. Enhance Standard Oversight and Support Procedures for Physicians-in-Training

As discussed, several Forum members have had negative experiences with physicians-in-training. Some describe these experiences as "horrific." Many of these experiences were when members' children were patients, and members believe that lack of oversight was a key factor of their negative experiences.

Our study revealed that those with prior negative experiences with a physician-in-training will carry their grief and fear, sometimes for decades. Even one unfortunate experience between a physician-in-training and patient can permanently affect a family's trust, which likely influences their trust in future care providers. And, once lost, regaining trust is difficult.[17,18]

On a related note, the group reviewed literature which addressed a strained management dynamic between some physicians-in-training and their superiors. One article stated:

> "Due to concern over the perception of others, especially the superiors who evaluated them, residents described pressure to act as though they were more experienced than they perceived that they were… [A] resident gave this example of difficulty admitting shortcomings: '*I've done in the past procedures on patients that I wasn't necessarily comfortable doing, with not a whole lot of supervision. But when someone asks me, you know, 'Do you need me to stand here? Do you need me here while you do this?' I said, 'No.' And that was probably not the right answer.*'" [19]

Thus we identify two issues of concern: strained dynamics and insufficient oversight.

We encourage a culture of openness at all institutions, thus enabling physicians-in-training to feel secure in a candid relationship with their supervisors.

Members place responsibility for poor experiences by trainees with the supervisor; attending physicians have the responsibility to be present until the trainee no longer requires their presence. Members stated:

"Supervisors have an absolute ethical duty to ensure that residents are trained sufficiently before allowing them [to independently conduct invasive procedures]."

"Attendings are responsible, period."

"They shouldn't let residents perform a skill unless they'd be comfortable having the resident operate on their [own child], and even then, they should be there with the resident to help if needed, and should not let residents [practice] alone until they're sure the resident is competent."

Further, members wish that patients could assume that the option of care-by-trainee is not offered to them unless the trainee is qualified. One member stated:

"I truly think that most patients would assume - and frankly, have a right to assume, that the attending wouldn't even offer or allow [invasive procedures by a physician-in-training] if the resident weren't qualified...[and] most parents will simply assume - and again, they really have every right to assume… that the attending will remain there in case the resident needs help."

Should stringent and uniform oversight be present, as described above, a minority of members believe that there would then be no need to warn parents of a trainee's status: the medical team could in good conscience withhold trainee status from a parent when consenting for their child's procedure, even if the physician-in-training had never done that procedure before on a live infant. This is the view of a small minority of Forum members; most are resolute about the need for disclosure of trainee status.

Even though many members have had unsatisfactory experiences with trainees, all have also had positive, affirming experiences with seasoned and caring physicians. We believe that excellent care is provided most of the time, in the vast majority of teaching hospitals. But because of the anguished long-term effects that occur from even a single unacceptable experience between a family member and a physician-in-training, we advocate for increased supervision of physicians-in-training.

We believe that openness and oversight would translate into an increased trust between the medical provider and family, serving to enhance the quality of decision-making, often under extreme stress, when life itself is at stake, and when time to act is of the essence.

Closing

We appreciate the opportunity to consult on this project, and hope that our feedback serves to beneficially add to the discourse on this important topic. We find that our work on the Forum is a positive experience that builds trust between our communities and the medical community. We are heartened that Yale's Pediatrics Department particularly, has sought out the perspectives of the community. We welcome further consultation requests.

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Appendix

The following survey was distributed to each member of the Forum.

1. Which of the following factors would influence your willingness to allow a physician-in-training to perform an invasive procedure on your newborn child?

"I would be more likely to allow a physician-in-training to perform an invasive procedure on my newborn child if…"

a) *… the attending physician spoke with me and expressed their confidence in the physician-in-training's abilities;*

Strongly Agree		Agree		No Influence	Disagree	Strongly Disagree
1	2		3	4		5

b) *… the attending physician told me s/he would be present to supervise, and would intervene if needed;*

Strongly Agree		Agree		No Influence	Disagree	Strongly Disagree
1	2		3	4		59

c) *… I had a good understanding of the risks of the procedure;*

Strongly Agree		Agree		No Influence	Disagree	Strongly Disagree
1	2		3	4		5

d) *… I knew the physician-in-training had performed the procedure before via a computer simulation;*

Strongly Agree		Agree		No Influence	Disagree	Strongly Disagree
1	2		3	4		5

e) *… I knew the physician-in-training had performed the procedure before on a newly deceased infant;*

Strongly Agree		Agree		No Influence	Disagree	Strongly Disagree
1	2		3	4		5

2. Are there other factors that might increase the likelihood that a parent would consent to their child's invasive procedure by a physician-in-training?

3. While we have discussed the strong emphasis on medical ethics and professionalism in medical education – and the remarkable work by physicians in treating their patients - we have also discussed ethical conflicts documented in the literature (Rosenbaum, et al, 2004):

"[Some] residents failed to tell the truth… [about] how experienced they were with specific procedures. Conflicts arose from disagreements over how much information to disclose, who should disclose, and when to disclose."

"A resident said, 'It's that whole tension between what I need to do to become a better resident, which was I had to get through a certain amount of procedures… I don't know that I would have known that there would be these situations where my learning would happen maybe somewhat at the expense of the patient.'"

"Sometimes, compromises were necessary between two competing professional values (e.g. potentially harming a patient to learn a procedure for the sake of future patients.)"

"Although the strong organizational structure of medical training provides organization and efficiency, the hierarchy may make the residents feel as if they sometimes must compromise their core professional responsibility to patients in order to succeed."

Thus we see that the culture of some medical institutions places physicians-in-training in a position of conflict. What are your thoughts on how this factors into our current topic?

4. The Joint Commission of Accreditation of Healthcare Organizations states that patients should be informed of the professional status of individuals performing procedures. Likewise, the widely accepted medical ethics concepts of disclosure, informed consent, and autonomy support being informed of this status. And yet some physicians hesitate to disclose a trainee's status for fear of a parent's dismissal.

    a. Do you think that a parent should be *informed* of the professional status of an individual performing an invasive procedure on their newborn for the very first time?
    b. Why?
    c. Do you think that parents should be *allowed to deny* a physician-in-training from performing an invasive procedure on their newborn for the very first time?
    d. Why?
    e. Would you allow a physician-in-training to perform an invasive procedure – for the very first time - on your newborn child?
    f. Why?

5. Does the necessity of training physicians outweigh the moral obligation to inform the parent that a procedure will be conducted on their child by a physician-in-training for the very first time?
    a. How does your understanding of the "ethical principle of truth telling" factor into your response?
    b. How does your understanding of the "claim of society to protect its individuals" factor into your response?

6. Do you have an experience with physicians-in-training that shapes your perspective (please share)?

7. If you feel that you would never personally agree to IPN, might you have any suggestions on systems changes that might help these young physicians receive the necessary training?

8. Do you have any additional thoughts on this topic?

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[2] The Community Bioethics Forum, created by The Program for Biomedical Ethics at The Yale School of Medicine, serves as a policy-review resource to the community affiliated with Yale-New Haven Hospital and The Yale School of Medicine, to include the community's voice in the dialogue already occurring in healthcare institutions, government, and academia. The Forum draws its members from outside the community of medical ethicists or physicians, and from a varied set of occupational, socio-economic, religious, cultural, and educational backgrounds. With training in basic medical ethics, the group is well-positioned to call attention to the spectrum of needs and ethos of New Haven's diverse population.

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