An Analysis of Candidate Ethical Justifications for Allowing Inexperienced Physicians-in-Training to Perform Invasive Procedures

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Allowing relatively inexperienced physicians-in-training to perform invasive medical procedures is a widely accepted practice, generally felt to be justified by the need to train future generations of physicians. The ethical justification of this practice, however, is rarely if ever explored in any depth. This essay examines the moral issues associated with this practice, in the setting of a specific clinical scenario involving the emergency intubation of a critically ill newborn. The practice is ultimately shown to be justified based not only on the needs of society and future patients but also on the best interests of the patient being treated. However, several important qualifications need to be satisfied in order for this practice to be ethically permissible. The arguments and qualifications presented can be extended to clinical situations beyond the specific scenario discussed and are relevant to a wide range of medical and surgical settings.

**Keywords:** clinical training, ethics, medical education, physician-in-training, resident

I. INTRODUCTION

Allowing relatively inexperienced physicians-in-training to perform invasive medical and surgical procedures is a widely accepted practice, generally felt to be justified by the ongoing need for qualified health care personnel. That we need to continually train new physicians may be understood as a given, and will not be refuted here. That the way we train new physicians is ethically
justified may also be taken by some as a given, perhaps without the benefit of thorough ethical analysis afforded to so many other aspects of health care. Currently, a long overdue reevaluation of medical training is underway (Cox & Irby 2006; Cooke et al. 2006). To carefully evaluate all aspects of medical practice and education, even those (or perhaps especially those) long taken as dogma, seems a healthy exercise. The purpose of this essay is to provide an ethical analysis of a specific current practice, that of allowing relatively inexperienced resident physicians to perform or attempt procedures on live patients. This analysis will take place in the context of a specific clinical example, though its implications extend well beyond the case presented. Traditional justifications, which I believe are based upon a utilitarian model, will be discussed, as well as an argument based upon patient’s best interest. It will be shown that although there are some weaknesses in both the traditional utilitarian argument and the patient’s best interest argument, the practice is ethically justified, with certain qualifications.

II. CASE

An infant is born at a major academic medical center at 26-weeks gestation, weighing 900 g (about 2 pounds). He is noted shortly after delivery to be cyanotic and in severe respiratory distress and requires emergency endotracheal intubation. Intubation of a child this small is a difficult procedure, and there are two physicians present who might do it. One is an attending neonatologist, who has successfully performed the procedure on infants this small over 100 times. The other is a pediatric resident, who has attempted the procedure on three babies this small and was successful once. Both are in agreement that the patient requires immediate intubation.

Though in an emergency setting such as this an actual assessment of patient’s best interest by cataloguing benefits and burdens is rarely carried out, it may nevertheless be instructive here. The procedure offers the benefits of reversing the cyanosis and respiratory distress, thereby reducing the risk of end-organ damage (e.g., brain damage) and facilitating positive pressure ventilation. Moreover, the procedure usually allows for effective ventilation, without which a child such as this may not survive. The burdens of intubation include the discomfort associated with the procedure, the risk of soft tissue injury, and the risk of improper placement of the tube, which could prolong the cyanosis. Benefits and burdens of the mechanical ventilation that would be provided via the endotracheal tube once placed should also be considered. By the unspoken and perhaps unconscious calculation of benefits and burdens, the attending physician has determined that it is in the patient’s best interest to proceed with the intubation. The next question, then, is who should do the procedure? Though one individual can assist another by “talking him through it,” the nature of endotracheal intubation of
a newborn is such that the actual procedure can only be performed by one individual.

At first look it seems clear that this fork in the therapeutic road should be faced as was the previous one and, as any should be, by an assessment of benefits and burdens to the patient. It seems most likely (and we will assume for this discussion) that the cyanosis would be ended sooner, the risk of misplacement would be less, and the discomfort and soft tissue trauma minimized if the attending did the intubation. However, in a setting such as this, it is quite common for the resident to perform (or at least attempt) the procedure, under the attending’s guidance. What is the ethical justification for this practice? It would seem that in carrying out the procedure in this way, the physicians violate the patient’s best interest standard. It is, perhaps, somewhat ironic that the young physician-in-training, fresh from her medical ethics seminars about the centrality of patient’s best interest, might encounter her first violation of that standard, rationalized by the needs of her own education. The thoughtful trainee might perceive a conflict between what she has been taught in principle and what she sees in practice.

III. TRADITIONAL JUSTIFICATION

Allowing the resident in the case presented to make the first one or two attempts at the intubation is consistent with practice in many, perhaps most, academic centers. The traditional justification, passed on mostly by oral tradition, goes something like this: The attending allows the resident the first attempts at the procedure with the goal of teaching that resident in a reasonably safe fashion, because there will come a time when the attending will be gone and the resident will need to be proficient at the procedure. It is done for the good of future patients. Patients in a teaching hospital are sometimes said to “understand this when they walk in the door.” Furthermore, whatever the patients sacrifice by having residents perform procedures is more than made up for by being in a teaching hospital, where typically there are more physicians thinking about, and talking about, any given patient as compared with a nonteaching hospital. In this way, the current patients are themselves believed to benefit from the presence of the residents.

It is worthwhile to examine some aspects of this traditional justification. First, the interests of future patients may indeed be served by allowing the resident in the case presented to attempt the intubation. This could be seen as a fundamentally utilitarian calculation: even if this practice is not in the best interest of the patient at hand, the interests of many future patients outweigh the interests of this individual. This argument, standing alone, is clearly not a justification based on this patient’s best interest. However, there are other examples of utilitarianism (and consideration of future patients not yet born), unrelated to training, that are commonly accepted in medicine. For instance, in intensive care units, antibiotic choice for a given patient is often
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influenced by concerns about creating resistant bacterial strains over time, which could make management of future-infected patients far more difficult. This is the case even for patients near the end of life, who are unlikely to be affected by the emergence of resistant strains in years to come. Consideration of future patients, therefore, is not without precedent. In addition, it seems intuitively acceptable, provided the present patient is not significantly harmed by that consideration. This is a justification based essentially on the “greater good.”

An objection could be raised to the argument based on the good of future patients. As stated above, the argument presupposes that “this particular resident” is likely to use “this skill” at some future date to benefit a future patient. More specifically, it presupposes that she will find herself presented with a premature newborn in need of intubation, without other more experienced personnel available to do the procedure. Should she be planning a career in one of several fields, such as pediatrics, neonatology, or obstetrics, the justification stands. Similarly, should the hospital where the resident is training sometimes place her in similar clinical situations, but without immediate backup, again the utilitarian calculation applies. On the other hand, if, based on the staffing of this hospital and the resident’s career path, it is very unlikely a future patient will benefit from her intubation skills, then a utilitarian calculation does not favor allowing her to perform the procedure in this case.

The second justification, that the patient was aware of this system when he walked through the door, is clearly flawed. The infant did not walk through any doors and is in no position to understand anything. It could be argued that his mother made that informed choice for him, but this is problematic on at least two levels. First, although it may be appropriate for his mother to make that decision (to participate in clinical training) for herself, it is not necessarily clear that she should be permitted to make such a decision for her child. Furthermore, even if it is accepted that a mother can make such a decision for her child, it is not clear that this mother truly had an informed choice. It is quite possible that she was brought emergently by ambulance, with no other choice of qualified facility in her community. This is, of course, the case with many patients at a teaching hospital, who lack the opportunity and/or the information to sit down prior to admission and calmly consider the benefits and burdens of a teaching versus community hospital. This aspect of the argument in favor of the current system of clinical education is invalid often enough that it should be abandoned.

A third component of the argument in favor of the traditional system is the strongest. Without active clinical education (including procedures), it might be argued that the hospital would attract less qualified residents or not have a residency at all. The presence of residents creates an environment of teaching, questioning, and open dialogue about various therapeutic options. Because of this environment, false assumptions are more likely to be exposed and
alternative diagnoses and treatments are more likely to be considered. In a teaching hospital, there are more eyes looking at the patient, making a subtle clinical finding more likely to be noticed. Accepted practices are continually questioned and, therefore, must be justified in light of the most recent data or be modified. Also, the quality of the attendings may be improved by the presence of the residency. In clinical medicine, one never learns a subject better than when one has to practice it and teach it. The very presence of the residents, and the culture that results, strongly motivates the attendings to stay current. For each of these reasons, the patient benefits from the presence of the residents and the presence of the residents is dependent upon a good training program, which includes the opportunity to learn procedures.

The argument above is consistent with experience, but a possible objection could nevertheless be raised. For a teaching hospital with qualified residents, closely supervised by qualified attendings, the argument likely stands. On the other hand, for a teaching hospital with marginally qualified attending physicians and/or poor resident supervision, it is difficult to argue that the care would be better than (or even as good as) a nonacademic hospital where patients are cared for by careful and qualified attendings, without residents. Though four skilled eyes are likely better than two, two skilled eyes are likely better than four weak ones. Recall that the case in question takes place in a major academic center, and for the sake of the discussion, it is assumed that both the attending and the resident are appropriately qualified for their respective level of training, and the resident is adequately supervised. If that is the case, the objection does not seem to apply.

The traditional justification, therefore, carries at least two valid points, one based on the interests of future patients and the other on the value of the residency program to this particular patient. These points alone may provide an adequate argument in favor of allowing the resident to attempt the intubation. However, the case is more difficult to make if allowing the resident to perform the procedure is contrary to this particular patient’s best interest. To fully assess the justification of current practice, we must address the central question: Is it in this patient’s best interest to allow the resident to attempt the intubation?

IV. PATIENT’S BEST INTEREST

For the sake of this discussion, it is reasonable to assume that the attending can perform the procedure with less discomfort, lower risk of soft tissue injury, lower risk of tube malposition, and shorter duration of cyanosis. At first look, it seems clear that the patient’s best interests are served by having the attending do the procedure. One can nevertheless build an argument that it is in the patient’s best interest to let the resident attempt the procedure. There are at least three potentially viable components to such an argument.
First, this patient might at some point later in his hospital stay require reintubation at a time when this resident will be present, but the attending (or another experienced individual) will not. If so, then perhaps it is best for this patient that the resident gets added experience now, with close supervision and backup. The resident, it could reasonably be argued, would then be more likely to succeed when she has to perform the procedure on this same patient without immediate backup.

Though logical, it is my impression that this argument thankfully has grown less valid over time. It is increasingly unusual for residents to be left in such a position without immediate support by more experienced clinicians. If, for the duration of this patient’s hospitalization as a newborn, there will always be someone immediately available who is experienced and skilled at this procedure, the justification presented above cannot stand. It seems safe to say that the presence of more experienced clinicians is increasingly becoming the standard of care. Therefore, at least for many academic centers, we will need to find another rationale for proving training practice consistent with patient’s best interest.

A better justification, as suggested by Rhonda Smith, might come from examining not only this patient’s short-term interests but from consideration of his long-term interests as well. Might this child someday, years down the road, come to value a newborn, perhaps his own, whose life will be saved by an intubation performed by this current resident? If so, it could be argued, then this patient will eventually experience a net benefit from the resident having mastered the skill, even if there was a lesser short-term expense (burden) to be paid.1 It is an intriguing notion and not outside the realm of possibility. However, somewhere in the calculation of benefits and burdens probabilities need to be factored in.

The presence of a short-term burden, though perhaps not its extent, is nearly certain if the resident performs the procedure today. The potential long-term benefit, on the other hand, is exceedingly unlikely. The probability that this resident will someday save a relative of this patient, with this specific procedure, is exceedingly low. It might be slightly higher on an island with a handful of physicians, but for a resident and a patient in a major academic center, the probability is so low as to be an insufficient justification of this long-term benefit argument.

However, Professor Smith’s point is not yet lost. If we assume that the present patient will someday value only those infants born into his own immediate or extended family, then the probabilities refute the argument. But what if instead this patient will someday come to care for or be spiritually or emotionally invested in the welfare of all newborns? Should he come to be, as phrased by Donne, “involved in mankind,” then the bell will indeed toll for him when some unrelated newborn dies years down the road. It will be a loss for him, even if he is unaware of that individual. However, a newborn’s rescue by this resident, years in the future, would then be for the current
patient a positive long-term benefit. This long-term benefit (for this current patient) could then be considered in the calculation of benefits and burdens of allowing the resident to learn this procedure here and now on this particular patient.

The third justification for the best interest argument is probably the strongest. Consider an analogy with act utilitarianism versus rule utilitarianism. It can plausibly be stated that a given act, for example, telling the truth, may not maximize utility in a specific circumstance, and yet for everyone to adhere to an honesty rule may, on the whole, maximize utility.\(^2\) Perhaps, the same analysis can be extended from utility to an individual’s best interest. That is, although it may not be in one’s best interest to tell the truth in a given situation, it may nevertheless be in one’s overall best interest to live in a society where everyone tells the truth. If this is plausible, and I believe it is, then one can extend the thinking to medical procedures. This would mean that, while it may not be in this patient’s direct best interest to have this resident do this procedure, it is nevertheless in his overall best interest to live in a society where young physicians are given the opportunity to learn difficult procedures, despite the presence of more experienced personnel. Put another way, the individual act of allowing the resident to intubate may not be in the patient’s best interest, but the existence of a medical training system that grants this experience to the resident is in fact consistent with this patient’s best interest.

This third justification might also be understood, retrospectively, in terms of a counterfactual regarding the attending. That is, had the current attending not received clinical training as a resident (or some other level trainee), he would not have the skills he now makes available to this patient and imparts to this trainee. Had the system of training not been in place, the attending (thus being unskilled in the procedure) would not now be able to teach/supervise the current resident. Furthermore, the attending would not even be able to act in what some might argue is in this patient’s short-term best interest, doing the intubation himself. Thus, this patient clearly benefits from the system—from physician training on previous patients.

This argument, in essence, states that it is acceptable to override a patient’s best interest in a given moment to support a broader system, provided that the existence of the system is consistent with that same patient’s ultimate long-term best interests. Note that this is not equivalent to saying it is appropriate to subvert a specific patient’s interest in favor of the interests of society. That may also be true, but is a separate question, and not the focus of this argument. Here we seek to show that the overall long-term balance of benefits and burdens to this patient favors supporting the system. It must be noted, however, that in order for this to be true, there must not exist another potential system that would serve the patient’s long-term interests as well, without compromising short-term interests as much. Put another way, we need to be confident that there is not another way to adequately
educate young physicians that does not compromise the patient’s short-term interests.

An historical perspective and a consideration of clinical medical education beyond this specific procedure may prove helpful in the search for a better system. Not long ago pediatric residents often covered pediatric emergency rooms and intensive care units without the immediate backup of more experienced pediatric attendings. That was the “system” at that time. One could argue convincingly that the short-term best interests of those patients would have been better served by the presence of experienced pediatricians. Nevertheless, that practice might have been justified by the fact that the training served the patients’ best interests in the long run, as was essentially argued above for the present system. However, when in many places the system was altered to require closer supervision of residents by attending physicians, the patients’ short-term interests were better served, without compromising (and perhaps improving) resident education. Their short-term interests were better protected, without sacrificing the presence of the residency or the resulting long-term interests of those patients. Therefore, the argument made at that time that those patients were best served by that system is seen to have been flawed. It was flawed, we see in retrospect, because a better system was available. If a better system for training physicians is conceivable and feasible, then we cannot justify overriding a patient’s short-term interests in support of the current system.³

The points presented above suggest that despite how it appears at first look, there are valid reasons to believe that allowing the resident to perform the intubation is in the patient’s best interest. These include the possibility that this patient may come to have an interest in the well being of future unrelated newborns and the possibility that the patient benefits overall from the presence of the educational system for residents, of which this procedure is an integral part. For many, this second point is likely to be more compelling than the first. Though objections of varying strength are identified for each of these points, the points nevertheless provide significant evidence that allowing the resident to perform the procedure is in the patient’s best interest. These points regarding patient’s best interest, in combination with the utilitarian arguments presented as part of the traditional justification, together form a substantial ethical justification for the practice of allowing relatively inexperienced residents to perform procedures. This justification is further strengthened by the following five qualifications, which address some objections to the best interest argument, as well as concerns about thresholds, veracity, justice, and exploitation.

V. QUALIFICATIONS

The first qualification is intuitively obvious but nevertheless must be stated. If the patient’s situation is so dire that delaying the successful completion of
the intubation is likely to cause death or lifelong disability, then his immediate best interest in having the attending intubate outweighs any possible long-term gain he might realize if the resident attempts the procedure. Put simply, there is no current benefit to this patient from having residents in the hospital or future benefit to newborns he may someday come to care about, if he does not survive long enough to develop such caring. Doubtless, there is a spectrum of risk and a significant degree of uncertainty, but this is a judgment the attending must make. The attending and resident in this setting share two goals: to care for the patient and to train the resident. There is an ever-present risk that excessive enthusiasm for the latter can significantly compromise the former. Important safeguards against this include the judgment of both physicians at the time, as well as retrospective review by peers. It cannot reasonably be argued that it is in the patient’s best interest to significantly risk death or disability, simply to support the educational system.

What about justifications aside from the patient’s best interest, such as the benefit to future patients and to the resident herself? Are these, too, outweighed by the patient’s immediate interests in a dire emergency? The intuitive answer is yes, the patient’s immediate interests would trump. The vast majority of physicians would presumably be unlikely to seriously jeopardize the safety of the patient at hand, based upon conscience, training, and the medical culture. In addition, a utilitarian analysis could yield the same answer.

If allowing the resident to attempt the procedure significantly risked the patient’s life, a utilitarian calculation would oppose that action. Given the strong chance of poor outcome, it is unlikely that this significant negative would be outweighed by a less likely future positive involving other patients. Even if it were, there are other negative effects of the action that must be weighed in the balance. For example, if the resident is given the opportunity and fails, resulting in a disastrous outcome for the patient, her clinical confidence and, as a result, her capabilities may be adversely affected. This negative effect could conceivably persist for years, at a cost to her and to her future patients. The attending may be similarly affected. As a result of a poor outcome for this patient, he may be excessively reluctant to give procedures to residents in the future, even under more appropriate circumstances. This would have adverse consequences for future residents and, potentially, for their future patients as well. Also, the hospital may suffer financial harm from a disastrous outcome, affecting its ability to provide for future patients. Clearly, both the patient’s best interest and a utilitarian calculation indicate that dire circumstances are an exception to the justification for allowing the resident to attempt the procedure. Therefore, one requirement of allowing the resident to attempt the intubation is that it not be done in cases where doing so would pose a significantly increased risk of poor outcome for the patient.

The second qualification is based on veracity. Telling the truth is not a complicated concept, but in the setting of medical training, it is sometimes
difficult in execution. The patients (or parents) have a right to assume they are being told the truth and all significant information about their treatment. This does not require overwhelming them with trivial details, but surely it includes informing them of who is providing that treatment. For the attending to allow the resident to do the procedure, but subsequently state (or imply) that he did it himself, would be a violation of his obligation of veracity. But honesty with patients should not be limited to individual face-to-face discussions. Patients as a group, and indeed society in general, should be made aware that at times an individual patient’s short-term best interests are placed subordinate to other interests. In the minds of many there is an unspoken pact with their physician, that all of his therapeutic decisions will be based solely on their best interests. This seems, on its face, a very reasonable assumption. In fact, it is a basic tenet of professionalism that the physician should place the interests of the patient above his own. Nothing written in this essay disputes that, but that is a separate question from placing the interests of other patients, or future patients, or society as a whole, ahead of the interests of the patient at hand. If patients believe that their personal best interests are the only factor in clinical decisions, then it is the obligation of physicians to inform them that there may be other valid considerations. Veracity is not adequately served by remaining quiet in the face of false assumptions.

The second point to be made regarding veracity regards honesty within the medical profession. Numerous statements regarding the patient’s best interest, as the main or even the sole criterion for clinical decisions, are found in policy statements and are taught to physicians-in-training (American Academy of Pediatrics 1994). These are at times oversimplifications or are simply not true. If we feel it is sometimes valid to consider the needs of future patients, then we should say so. The policies will not be as concise, nor will the teaching be as absolute, but they will be a closer reflection of what is believed and practiced. In summary, a second requirement for allowing the resident to attempt the intubation is that the medical professionals be honest with themselves, with their students and with the parents about what is being done, by whom, and why.

The third qualification stems from the risk of exploitation. The Kantian imperative not to use individuals merely as a means to another’s ends is rarely invoked in the clinical setting but nowhere is it more appropriate. The risk of exploitation in medical training is two-fold, exploitation of the patient and of the resident. The hospitalized patient is surely in a vulnerable position, for example, in the case discussed. The infant’s vulnerability could easily be exploited to serve the ends of others. Consider a case wherein the procedure is not truly necessary, but the indications can be stretched somewhat to create a justification. Physicians have at least two possible incentives to perform unnecessary procedures: money and experience. The first incentive is well known. The second is perhaps less well known, but the risk clearly exists. The educational opportunity is often seen as very desirable,
by both the attending and the resident. There may then be a risk that such opportunities could, to some extent, be created. That is, a patient who truly does not need a procedure might nevertheless receive it for teaching purposes. In such a case, the patient is being exploited for the goals of the physicians, serving simply as a means to their educational ends. It would, therefore, be unacceptable except perhaps for procedures of minimal pain and risk, such as redundant physical exams.

The reasoning presented in this essay that justifies allowing a resident to perform medical procedures under appropriate supervision does not extend to procedures that are not medically necessary. It would be most difficult to make an argument that such procedures are in the patient’s best interest. Furthermore, there is a threshold of risk to the patient, beyond which the patient’s best interest should not be overridden by other goals, including the interests of other patients, present or future. In addition to exposing the patient to unnecessary pain and risk, such a practice could have other unforeseen long-term consequences, such as a resident who finishes training with a flawed understanding of patient integrity. The safeguards against this form of patient exploitation should include the professional integrity of the attending and the resident, as well as some measure of hospital oversight. In unclear cases, the physicians should be guided by an honest answer to the simple question: Would this procedure be done if no trainee were present? If the answer is no, the procedure should not be performed.

In a teaching hospital, the patient is not the only individual at risk for exploitation. The resident might be asked to perform medical procedures or other tasks unnecessary for her own education, in order to save the hospital the expense of hiring more employees. As she is a hospital employee, as well as a trainee, it is quite reasonable that some of the tasks she performs be for the good of her employer and not necessarily herself. She is compensated for her work, with salary and training, but it is easy for the work to become out of proportion to the compensation. The resident is clearly in a vulnerable position, completely dependent on her superiors for her education, as well as for the recommendations that will help her attain the job or fellowship she desires at the end of the residency. Should the hospital choose to impose a workload beyond what most would think reasonable, she may have little recourse but to resign, thereby losing a year in her training. Having resigned a residency from one major academic center, she may find it very difficult to gain admission and start again in another of equal caliber.

The attending might also exploit the resident’s vulnerability by passing on work that is more appropriately done by him, not for her benefit or for the benefit of any future patients but rather merely to lighten his own load. Once again, a certain amount of this may be appropriate, as part of the compact between attending and resident. Just as she is financially remunerated by the hospital, she is also “paid” by the attending, with clinical teaching. However, the imbalance of power creates a vulnerability, which in turn creates a risk
of exploitation. In the case at hand, that does not seem to be the situation in that it would likely be easier and less stressful for the attending to simply perform the intubation himself. However, there is sometimes a risk that when a resident is told to perform a procedure, it may not necessarily be for her benefit or for the benefit of present or future patients but rather for the benefit of the hospital and/or attending. Although a certain amount of this is acceptable in light of compensation, the point of exploitation can easily be reached. Unreasonably long shifts (now appropriately less common than in the relatively recent past), and the tasks included therein, may represent one example of this. Safeguards, such as careful oversight of residencies both within the hospital and nationally, should be put in place to be certain that patient care does not involve exploitation of the residents.

The fourth qualification, alluded to earlier, is that the educational system be optimized. The justification for allowing the resident to perform the intubation is largely dependent upon the overall benefit of the clinical education system. Some immediate interests of the patient, such as a quicker and less uncomfortable procedure, are outweighed by the many other factors cited, not the least of which is the benefit to all (including the patient at hand) of having the educational system in place. However, if we could decrease the cost to the patient’s immediate interest and still retain the educational benefit, it would clearly be preferable. Clinical educators should continually seek ways to optimize physician training, in an attempt to minimize the short-term costs to patients that clinical training sometimes entails.

Optimizing the system should include at least two important components. First, supervision should be adequate. A practice wherein the attending allows the resident to attempt the intubation, but is not present in the room while the attempt is taking place, is substantially improved by the presence and direct guidance of the more experienced physician. Secondly, we should optimize prior resident experience on models other than live patients. At present, there are at least three favorable alternatives: synthetic models, animals, and human cadavers. It is interesting to note that, at least at our institution, the practice of having the residents learn intubation on a recently deceased newborn has greatly decreased over the years. This decrease seems to have coincided with the change in policy several years ago that now requires parental permission, which understandably many physicians are reluctant to seek. As a result of this, however, a resident’s first human intubation is typically in a high-pressure setting in a live human, rather than as part of an extended lesson with a human cadaver. This could and should be changed by seeking parental permission and then making the effort needed to teach with recently deceased newborns.

The fifth and final qualification invokes the concept of justice. Among the requirements of justice is that equals be treated equally. The history of clinical education is one that separated patients by their ability to pay. The so-called teaching patients were often those who lacked the ability to pay and
were receiving “charity care.” A resident in that setting was less likely to perform a procedure on a private patient than on a patient on the clinic service. Was this an unjust practice? The question is complicated, but one way to approach it is to ask whether equals were being treated equally. The answer to that, of course, lies in how one defines equals. More fundamentally, it depends upon one’s view of whether (and to what degree) each individual has a right to medical care.

Consider if there is no “right” to medical care, but rather that it is a commodity to be purchased, like an airline ticket. The customer who pays the lower price, and thereby flies coach, receives less service and a smaller seat than the passenger who pays the first-class price. They are clearly not treated equally. Is this unjust? Intuition would suggest that it is not. By virtue of having paid different prices, they are not viewed as “equals.” Similarly, the customer at a fine restaurant who pays for a bowl of soup receives much less of a meal than one who pays for a full dinner. They do not receive equal meals, but this is not seen as an injustice. They are not, as customers, “equals,” by virtue of the fact that they pay different amounts. If medical care is a commodity similar to a meal at a fine restaurant or an airline ticket, then, indeed, the patients are customers. Moreover, they are unequal customers, based upon how much they will pay. If so, it is just that they receive unequal treatment and there is no inherent injustice in that aspect of clinical education.

If, on the other hand, we choose to view health care as something beyond a simple commodity and patients as something other than customers, then we may be less inclined to categorize them by their financial contribution. This approach seems preferable. If so, does justice then require that all patients be treated equally? On a very simplistic level it may, but a closer evaluation shows important ways in which patients are not equal and, therefore, need not be treated equally. The patient with active tuberculosis is not the equal of the patient with a broken leg when choosing who should get the private room. In the realm of clinical training, some patients need the procedure to be done more quickly than others. Some will have conditions that make the procedure far more difficult to perform. In this sense, based on clinical rather than social or financial status, justice allows the physicians to treat patients differently. Therefore, it is acceptable to allow the resident to attempt intubation on some patients, but not allow the attempt on others, provided this difference in treatment is based on clinical inequality. If we choose to recognize equality based on clinical rather than financial or social criteria, then in clinically equivalent situations patients should be treated as equals. This should include the determination of which patients are appropriate subjects for a resident’s attempt at a procedure. Ultimately, the benefits of the teaching hospital and the clinical education system will be realized by individuals regardless of social or financial standing. It, therefore, is reasonable to also share in the short-term burden of allowing residents to attempt/perform procedures.
In conclusion, allowing the resident to attempt the intubation in the case presented is ethically justified based on several factors, including the interests of future patients, as well as the interests of the patient at hand. Major objections are addressed and the justification further validated by the five qualifications presented. The argument has been made in the context of a specific case, but there is nothing in the rationale as presented that prevents it from applying to the general practice of allowing relatively inexperienced residents (or medical students) to perform procedures on live patients.

NOTES

1. Based on a suggestion made by Professor Rhonda Smith, personal communication, Brown University, Providence RI, 12/4/02.
3. By better is here meant a system that is more effective at optimizing the patient’s overall best interest. This, of course, includes the qualification that it must be feasible (e.g., affordable).

REFERENCES

American Academy of Pediatrics Committee on Bioethics. 1994. Guidelines on forgoing life-sustaining medical treatment. *Pediatrics* 93:532–6. This guideline has been reaffirmed and remains in effect as of this writing.

