Fry-Johnson and Rowley correctly observe that our suggestion to consider the effect of evolutionary pressures on parturition is unsubstantiated. This approach was not presented as established fact, but rather as a potentially illuminating avenue to gain insight. As for their plea that we consider the social environment in the cause of preterm birth, we do assert this need in our review. Although the term “race” is imprecise, there is strong evidence to support it as both a genetic and a social construct.1–3 Race conveys an important message: there is disparity among blacks as compared with whites. These differences can be accounted for by the social environment, genetic inheritance, epigenetic influences, or any combination of the three. To close our minds to the genetic components of human variation will limit our ability to have an effect on this disparity. Last, we concur with the teams they suggest for carrying out future studies.

Takayama and Matsuo state that the situation in Japan “may be uniquely different” from that in other high-income countries. However, the data they cite do not strike us as being different. Although the rate of preterm birth in Japan is lower than that in the United States, it has increased from 4.1% to 5.8%. Those antecedents of preterm birth cited as operating in Japan also occur in the United States. Our review did not address the related problem of low birth weight. The studies cited by Antony suggested a preventive effect of folic acid supplementation on the rate of preterm delivery, but they were not conclusive. In the study involving Bantu women with nutritional deficiencies, the alleged effect was small and there was no comparable effect in white women.4 The body of results on folic acid supplementation for the prevention of preterm birth is too mixed to draw conclusions regarding its effectiveness.5

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Since publication of their article, the authors report no further potential conflict of interest.


Is It Always Wrong to Perform Futile CPR?

TO THE EDITOR: In his Perspective article regarding the performance of futile cardiopulmonary resuscitation (CPR), Truog (Feb. 11 issue)2 calls attention to complexities in end-of-life care and in communicating with loved ones. Yet he contradicts himself, stating both that “interests of the patient are always primary” and that “interests of the surviving family members may take priority.” We argue that physicians are obligated first to the patient’s best interest and only secondarily to the family’s interests, even after the patient’s death; for example, first-person consent laws permit organ donation despite a family’s objections if a patient has expressed this intention in an advance directive. A belief that physicians will not represent patients’ interests at the end of life could further erode patients’ confidence. It is even more critical for the physician to act as a patient advocate when parents are the decision makers for their children. Consider the cases of parents who have been taken to court for denying needed medical treatment to their child. Though a family’s wishes may prolong some treatment (e.g., mechanical ventilation), the family should never initiate unnecessary new treatments that may cause harm to the patient. Potentially harmful treatment that is not in the patient’s best interest should cause as much concern as the inappropriate denial of care.

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TO THE EDITOR: Truog offers two justifications for providing “futile” CPR: the child was “beyond suffering” and “at the end of life . . . the interests of the patient begin to wane, while those of the family intensify.” Both claims are problematic. We do not know whether patients who appear to be unresponsive at the moment of death are truly “beyond suffering.” Studies of profoundly brain-injured patients who appear to be unresponsive suggest that pain-perception centers in the brain may be active, and neither behavioral nor autonomic signs are consistently reliable markers for pain perception.¹

Truog then invites us to violate Kant’s second maxim — that persons should be treated “as an end and never merely as a means to an end.”² When, in the interest of the family, physicians acquiesce to family demands for nonbeneficial treatment at life’s end, we use the patient as a means to the family’s end, while strengthening the mistaken cultural belief that dying and death are medical problems to be solved rather than spiritual problems to be faced. This serves neither patients nor families well.

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No potential conflict of interest relevant to this letter was reported.


TO THE EDITOR: Truog’s article raises several concerns, the first of which is that the author identifies performing “futile CPR” as an option to begin with. The family that is described in his article had assigned a therapeutic value to CPR, inconsistent with scientific evidence; outcomes of CPR that are depicted on television deviate from the grim statistics in the real world.¹ Rather than promote public education regarding CPR, Truog suggests that we accept and even humor the public’s misconceptions.

Second, Truog describes a family that is mistrustful of caregivers and unwilling to accept that CPR would not benefit their child. His justification for performing a sham resuscitation attempt — that it provided comfort to the family — amounts to supporting deliberate deception. It is contrary to ethical principles for physicians to address mistrust and misconception with deceitfulness and deception.

Finally, Truog reports feeling that he had “done the right thing,” but his conclusion that “futile CPR has a limited but legitimate place in the practice of medicine” is an unjustified generalization. Truog would provide better ethical guidance by focusing on common scenarios, rather than highlighting the exceptional or obscure.

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TO THE EDITOR: We respectfully disagree with Truog’s conclusion. Futile CPR cannot be justified simply because it satisfies the family’s need to “do everything.” In this case, we suspect that the family’s refusal to sign a do-not-resuscitate order and the breakdown in communication with the team in the intensive care unit (ICU) reflect the first stages of grief — that is, denial and anger. After the patient’s death, the family progressed to the final stage of grief — acceptation — which would predictably occur regardless of whether CPR was performed.

Unfortunately, our current medical–legal environment favors patient autonomy over the physician’s recognition of medical futility.¹ The misguided outcome in this case would probably have been avoided if there were hospital, state, and federal policies in place to allow an independent review by an ethics panel in order to determine futility and protect a doctor who refuses to comply with an unreasonable request.

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TO THE EDITOR: Truog thoughtfully outlines the various ethical considerations with respect to performing futile CPR in patients. He notes that “futile CPR has a limited but legitimate place in the practice of medicine.” I wonder what the limits to this practice are. One limit that he mentions is conflict with the patient’s interests. If patients are, in fact, dead at the onset of CPR that is expected to be futile, what interests do they have that would supersede those of the family? Certainly, they no longer have experiential interests; as Truog notes, his patient “was beyond suffering.” A fundamental question is, what type and degree of emotional benefits to the family outweigh the sum of the indignities to the patient, the added moral distress for the clinicians, the impact on other patients, and the cost of resources?

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TO THE EDITOR: Truog makes an excellent case for the performance of futile CPR in cases in which the family insists on all possible efforts despite obvious medical futility. It is possible to take this approach a step further and have the family present while resuscitation efforts are under way.¹ Doing so allows family members to see the heroic efforts as they occur, and often family members will ask that efforts be curtailed when they see what “every effort at resuscitation” really means. Although many family members would not want to — and should not — be present during resuscitation efforts, for some members of some families, these efforts can be important to witness and can provide closure to their view of the life and death of their loved one.

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THE AUTHOR REPLIES: I appreciate the thoughtful comments expressed in these letters and agree that my argument is strongest when the psychological benefits to the family are significant and when the patient is “beyond suffering” (for instance, because of profound neurologic damage or deep sedation in the ICU). Although quantifying both “benefits” and “suffering” involves a degree of uncertainty, this is often the case when we must balance the potential for benefit against the risk of harm.

Hanto and Ladin make the interesting observation that although “a family’s wishes may prolong some treatment (e.g., mechanical ventilation), the family should never initiate unnecessary new treatments that may cause harm to the patient.” Although the ethical distinction they assert between continuation and initiation of futile therapies seems dubious at best, I agree that it is not unusual for futile mechanical ventilation to be continued for hours, days, or even longer to meet the psychological needs of the family (and perhaps...
As author Thomas Mann famously observed, “A man’s dying is more the survivors’ affair than his own.” Although this theme has been explored in other pediatric cases, it acquires even more relevance and legitimacy when the patient is an adult who is invested in the emotional well-being of loved ones. For example, a recent narrative described the case of an elderly man who initially told his granddaughter (a physician) that he did not want CPR, but when he learned that his wife disagreed, said, “I am ready to go, but if it helps your grandmother to feel that she did everything possible for me, even if it is because she doesn’t want me to go, that is OK. She is the one who has to go on living with her decision. If this is what she wants, then this is what I want because I love her.”

Although the use of futile mechanical ventilation, CPR, and other treatments is uniformly condemned according to a pristine ethic of “treat only the patient, not the family,” the prevalence of these practices suggests that clinicians are actually engaged in a more complex ethical calculus in which the interests of family members may have weight in the decision-making process, sometimes on the basis of views explicitly expressed by the patient and at other times implied by the nature of familial bonds. In either case, simplistic ethical rules and principles may not do justice to the complex dynamics that are often at play in end-of-life care.

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Since publication of his article, the author reports no further potential conflict of interest.


Food Reformulations to Reduce Trans Fatty Acids

TO THE EDITOR: Consumption of trans fatty acids raises levels of low-density lipoprotein cholesterol and triglycerides, lowers levels of high-density lipoprotein cholesterol, induces an inflammatory response, and even at low levels of intake (e.g., 2 to 4% of total calories) significantly increases the risk of coronary events. Efforts to reformulate foods to reduce trans fatty acid content can have substantial effects on health and are relevant to public health policy. Public campaigns and policy measures are motivating food manufacturers and restaurants to replace the trans fatty acids in foods (present largely because of the use of partially hydrogenated oils) with alternative fats. Concerns exist that in reformulating the foods manufacturers may replace the trans fat with saturated fat, in which case the combined content of these fats in the foods could remain about the same or even increase, mitigating health benefits. A recent analysis showed that selected products free of trans fat contained substantial amounts of saturated fat, suggesting that reformulations to reduce trans fat might not be achieving net reductions in combined levels of trans fat and saturated fat. In this study, however, the investigators did not evaluate actual product reformulations but simply compared different products from different manufacturers at one point in time. To our knowledge, no large-scale assessments have been performed to determine the extent to which U.S. companies are increasing the saturated fat content of foods when they are being reformulated to reduce the trans fat content or whether there is a variation between supermarket foods (which are required to carry labels showing nutrient content) and restaurant foods (for which nutrient labels are not required).

We investigated changes in the levels of trans fat and saturated fat in major brand-name U.S. supermarket and restaurant foods that were reformulated to reduce trans fatty acid content from 1993 through 2006 (first evaluation) and 2008 through 2009 (second evaluation). Our assessment was based on information from consumer magazines, health newsletters, a nonprofit organization database, and food-composition databases at the Food and Drug Administration. We identified 83 reformulated products (58 supermarket foods and 25 restaurant foods) (Fig. 1, and the Supplementary Appendix, available with the