# Medicine

There is a growing interest in developing and perhaps rekindling a sense of professionalism in medicine. The classic Christian virtues are complementary to such a development. The December 4, 2007, issue of the *Annals of Internal Medicine* published a report by E. G. Campbell and colleagues titled "Professionalism in Medicine: Results of a National Survey." Using a stratified random sample of 3,504 practicing physicians in multiple specialties, attitudes and behaviors were assessed in each domain of professionalism as promulgated by the American College of Physicians and the American Board of Internal Medicine. A 58 percent response rate was realized. Ninety percent or more of the respondents agreed with statements on the fair distribution of resources, improving access and quality, managing conflicts of interest, and professional self-regulation. Unfortunately, behavior and ideals did not always match. Although 96 percent of respondents agreed that impaired/incompetent colleagues should be reported for disciplinary action, only 45 percent of the respondents reported such colleagues when they encountered worrisome behavior. From a Christian perspective of the moral life, this is no great revelation. Indeed, our actions often fall short of our ideals. No less an authority than St. Paul proclaimed that his actions were often contradictory to his knowledge of the good. It is actually encouraging to find such high numbers of physicians at least retain high professional ideals in practice. Those of us in health care should ask for the grace to make our ideals and behaviors truly unified.

*Are Vaccines Linked to Developmental Disorders?*

In the summer of 2005, the Pontifical Academy for Life gave guidance to the universal Church on the administration of vaccines developed from human cell lines derived from aborted fetuses. Although pointing out clearly the immoral way in which

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Address correspondence to Greg F. Burke, M.D., F.A.C.P., Geisinger Medical Center, MC 1401, 100 North Academy Avenue, Danville, PA 17822; e-mail: gburke@geisinger.edu.

 

the vaccines were developed, the Vatican encouraged vaccine use for the common good and promotion of health, while also chastising the pharmaceutical industry and encouraging it to find alternative methods of vaccine production devoid of ethical problems. Dr. Edward Furton, the editor of the *Quarterly*, has written extensively and well about these critical issues.

As a physician, I am sometimes asked about the medical risks of vaccines and especially if there is an association with developmental disorders. There is a widely held lay belief that pediatric vaccines may cause autism. An article in the September 27, 2007, New England Journal of Medicine adds some light to this controversial topic. The study by W. W. Thompson and colleagues titled "Early Thimerosal Exposure and Neuropsychologic Outcomes at 7 to 10 Years" was a collaborative effort of multiple vaccine research centers. A retrospective review of 1,047 children ages seven to ten with a special look at correlations between exposure to mercury from thimerosal (a preservative agent in most vaccines) and neuropsychologic status was obtained. The administration of thimerosal-based vaccines was documented by patient interview, medical records, and personal immunization records. Of forty-two neuropsychologic outcomes studied, only a few associations with mercury exposure could be made. Interestingly, the association with both positive and negative outcomes balanced out. The authors concluded that a casual association between mercury exposure from vaccines and immunoglobulins and potential neurological damage could not be established in this study.

This study is reassuring, but the controversy will not recede for some time. I recently viewed a scurrilous Web site that proposes a satanic-like conspiracy linking the Catholic Church to the widespread use of vaccines. As Catholics we believe faith and reason are harmonious. Vaccines have saved innumerable lives, and their use should routinely be encouraged by health care providers. It is right to speak out against the immoral practices that were involved in the derivation of many vaccines. Given the very remote nature of the immoral acts involved in their creation and the current lack of definitive proof of neuropsychologic harm, however, it would be appropriate for Catholic physicians to encourage vaccination in their day-to-day practices.

*Physician Management of Capital Punishment*

The September 2007 Mayo Clinic Proceedings tackled the difficult issue of physician involvement in capital punishment. In a thought-provoking commentary, Dr. David Waisel, an anesthesiologist at Children's Hospital in Boston, argues that physicians should participate in lethal injection executions to minimize the chances of a botched execution. Waisel advocates physician management of the process of lethal injection so that it is performed humanely. The author proposes that the American Medical Association's statement against physician involvement in execution be revised. An accompanying editorial by noted bioethicist Dr. Arthur Caplan, generally no friend of Catholic bioethical teaching, argues that physicians should remain absent from the execution chamber. He proposes that trained technicians accomplish the execution act and not medical professionals. I, too, think it is unwise to accept physician participation in such cases or the assertion that their presence means executions can be done humanely. Such arguments are also made for the

legalization of physician-assisted suicide. Physicians, especially well-grounded Catholic physicians, must never seek death as a goal of their mission. Pope John Paul II eloquently reminded us of the dignity of the human person, even one who has committed horrific crimes. There may be rare cases in which state-sponsored capital punishment is moral, but the vast majority of cases in the United States do not seem to rise to that level. Doctors should be in prison to help the sick, not to perform acts of death.

*Racial Disparity in Medical Practices*

The *Catechism of the Catholic Church* (n. 1935) quotes the Vatican II document *Gaudium et spes* in reference to the equality of men based on their dignity as persons: "Every form of social or cultural discrimination in fundamental personal rights on the grounds of sex, race, color or social conditions, language, or religion must be curbed and eradicated as incompatible with God's design." As we all know, the reality of racial equality has not been fully realized despite the advances of the last several decades. The September 15, 2007, issue of the *American Journal of Cardiology* presented a challenging study titled "Racial Disparity in the Utilization of Implantable-Cardioverter Defibrillators among Patients with Prior Myocardial Infarction and an Ejection Fraction of ≤35%." K. L. Thomas and colleagues studied 7,830 patients who were candidates for implantable defibrillators (ICDs). Black patients (n=660) tended to be younger and female and have less education. They were also found to have more comorbidities and weaker heart function. Black patients were significantly less likely to receive an ICD (30 percent vs. 41 percent), despite adjustments for economic status, demographics, and clinical characteristics.

The results of this study are disturbing. As I mentioned earlier, physicians remain idealistic about justice in the delivery of medical care. Perhaps undiscovered variables play a role in the assignment of ICD implantation in blacks and whites—one can only hope that race is not a part of it. If the authors have discovered residual racism in the practice of cardiology, however, this must be addressed head on. Bigotry and discrimination violate the tenets of good medical practice.

*Relationships and Heart Health*

It is a common belief that happily married individuals live longer and more satisfying lives. Is the opposite proposition also true? In an interesting article that appeared in the October 8, 2007, issue of the *Archives of Internal Medicine*, Roberto DeVogli and coworkers analyze the association between "Negative Aspects of Close Relationships and Heart Disease." The authors were also interested in possible connections between heart disease, gender and social position. The prospective cohort study of 9,011 British civil servants (6,114 men and 2,897 women) was conducted for an average follow-up period of 12.2 years. After adjusting for factors such as obesity, hypertension, diabetes mellitus, cholesterol, and lifestyle choices to reduce confounding variables, the study found that those with unhappy close relationships had a higher risk of coronary events, at a ratio of 1.34. (A ratio of 1.0 would bring equal odds to the table.) Even after adjustment for depression, the association remained valid. Although negative relationships were more common in among participants in lower employment grades, gender and social position were not independently

related to the primary assertion that negative relationships caused coronary events. Unfortunately, unhappy relationships spare no class or situation. Catholic teaching on family life emphasizes forgiveness and self-sacrificial love. Strong and wholesome relationships may be as good as aspirin and regular exercise.

*Alcohol Dependency*

The Catechism (n. 2290) explains that "the virtue of temperance disposes us to *avoid every kind of excess*: the abuse of food, alcohol, tobacco, or medicine. Those incur grave guilt who, by drunkenness or love of speed, endanger their own and others' safety on the road, at sea, or in the air" (original emphasis). This single statement contains a wealth of good advice for healthy living. The Vatican recently released guidelines to combat road rage and unsafe driving due to alcohol. In my own medical practice, I have found the diagnosis and management of alcoholism very challenging. Therefore, I was pleased to review a recent article in the October 10, 2007, issue of the *Journal of the American Medical Association* titled "Topiramate for Treating Alcohol Dependence." B. A. Johnson and colleagues present the data from a randomized placebo control trial of topiramate (Topamax) for treating alcohol dependency. Three hundred and seventy-one men and women between the ages of eighteen and sixty-five years, who were diagnosed with alcoholism, were studied over a fourteen-week period. One hundred and eighty-three participants received active drug treatment with topiramate (up to 300 mg a day), and 188 patients received treatment with a placebo. The prime end point was self-reported percentage of heavy drinking days; secondary outcomes included abstinent days and biochemical markers.

Outcome data confirmed a significant reduction in heavy drinking days in the topiramate arm of the study, with a mean difference of 16.2 percent. However, side effects from the medication, including sensory disturbances, loss of appetite, and taste reversion were prominent. This is hardly a closed story, and further study of the medication for treating alcohol dependency is required. In the meantime, the proven benefit of referring patients to Alcoholics Anonymous, with its well-known spiritual basis, cannot be overemphasized.

*Pediatric Organ Donation after Cardiac Death*

There has been a resurgence of interest in organ donation after cardiac death. Significant scientific and moral questions have surrounded this form of organ procurement for decades. Organ donation after cardiac death never came to be widely used, because of the widespread acceptance of brain death criteria and perhaps a perception that cardiac death protocols were more complex and less likely to deliver viable organs.

Some years ago I argued that a well-executed procedure for organ procurement after cardiac death could be permissible in terms of Catholic moral teaching. An interesting review in the October 4, 2007, issue of *Pediatrics* retrospectively studied organ donation after cardiac deaths in children through the age of eighteen from 1993 to 2005 (R. Mazor and H. P. Baden, "Trends in Pediatric Organ Donation after Cardiac Death"). Six hundred and eighty-three organs were donated by this method, with less than 5 percent going to pediatric recipients. The vast majority of donated

organs were kidneys and livers. More than half of the medical centers reported only one donation during the study period. The most extensive experience at a single center involved only fourteen donors. Information on outcomes and the ethical dilemmas associated with the procedure is lacking, and more comprehensive studies will be required. If donation after cardiac death, formerly known as non-heart-beating organ donation, is to be considered a reasonable option for providing much-needed organs, Catholic moral principles must be emphasized and strictly adhered to: there can be no coercion of the donor's family, there must be absolute respect for the dignity of the donor, and there can be no medical interventions that hasten the donor's death.

*Effects of Medical Error*

An under-recognized professional risk for health care workers is the emotional upheaval provoked by medical error. As a busy clinician for nearly two decades, I would like to say that I have been spared such distress, but that would be untrue. In my personal experience, no clinician is immune to missing or delaying an important diagnosis, making a therapeutic misstep, or simply standing alongside a patient who is enduring an inevitable bad outcome.

T. Delbanco and S.K. Bell published a prospective titled "Guilty, Afraid, and Alone: Struggling with Medical Error" in the October 25, 2007, issue of the *New England Journal of Medicine*. The authors point out that little attention has been given to health systems' duties to reduce the emotional suffering of all involved in medical error. The 1999 Institute of Medicine report "To Err is Human" needs to be balanced with the higher calling, "to forgive, divine." The authors wrote this article after obtaining interviews for the production of a documentary film. A number of consistent themes dominated the interviews. First, both clinicians and family members feel guilty. Second, patients and families fear future harm, perhaps as retribution from health care workers for reporting error. Finally, clinicians may abandon or turn away from patients who were harmed just when the patients are most vulnerable. The authors encourage apologies and truthful disclosures, but also stress the crucial role of forgiveness. Only forgiveness, in the authors' words, can rekindle trust, acceptance, and closure. In his encyclical *Dives in misericordia*, John Paul II states, "Society can become 'ever more human' only when we introduce into all the mutual relationships which form its moral aspect the moment of forgiveness, which is so much of the essence of the Gospel. Forgiveness demonstrates the presence in the world of the love which is more powerful than sin" (n. 14). These are wise words for all, but perhaps most especially for those in the health care profession.

*Contraceptives and Heart Risks*

In a number of prior abstract reviews, the medical risks of oral contraceptives have been explored. The risks of breast cancer and well-documented risks of thrombosis in smokers who use oral contraceptives are often part of the routine warnings physicians give patients who ask for prescriptions of these agents.

When Ernst Rietzschel of the University of Ghent in Belgium reported findings of the ASKLEPIOS study at the 2007 annual meeting of the American Heart Association, the national media reacted as if contraceptive risks were something quite new (Scientific Session abstracts 3537 and 3614, presented November 6, 2007). This

large-scale European study showed that oral contraceptive use might raise arterial atherosclerosis risks in women by 20 to 30 percent for each decade of use. Based on a random sample of 1,301 women between the ages of thirty-five and fifty-five years, the findings showed that carotid and femoral arteries developed plaque at a higher rate when contraceptives were used. Vascular ultrasound scans documented these changes. More than 81 percent of the participants reported oral contraceptive use for at least one year, and the average duration of use was thirteen years. A significant odds ratio indicates that this is likely statistically to be a true association between hormone contraceptive use and the development of arterial plaque. Although newer generations of oral contraceptives have a lower estrogen composition, the authors of the study postulate that the atherosclerotic effect is related to other mechanisms, such as increased blood pressure and effects on cholesterol. All these physiologic interactions lend biologic plausibility to the findings of this study.[1]

It is interesting that the chief researcher in the study recommended caution in having women discontinue the pill. The author suggests a risk-benefit analysis for individual cases. It would be surprising if other medications used for the treatment of serious pathologies would get such a "pass" from the medical community. After rapid and definitive recommendations to remove Vioxx, and possibly Avandia, from the market by well-meaning medical professionals, there has been a notable silence about the medical risks of oral contraceptives. The medication remains continually available, despite the discovery of new risks on a regular basis. Natural family planning offers a medically safe and morally satisfying alternative to almost all women who need to avoid pregnancy.

*Sexual Health in Mature Adults*

The August 23, 2007, issue of the *New England Journal of Medicine* featured an original article by S. T. Lindau and coworkers titled "A Study of Sexuality and Health among Older Adults in the United States." The study results were the topic of many television news programs.

The research was performed at the University of Chicago and involved a survey of 3,005 U.S. adults between the ages of fifty-seven and eighty-five years. Sexual activity declined proportionately with age, but a quarter of respondents over the age of seventy-five were still sexually active. Approximately half of those who were sexually active reported at least one troublesome sexual dysfunction. Sexual problems ranged from low libido to overt impotence. Women had significant problems with diminished sexual desire and vaginal dryness. Fourteen percent of men reported the need for medications to improve erectile function. Adults with poor health reported more sexual problems, and a minority of patients discussed these concerns with a physician. Finally, women were much more likely to report a lack of sexual intimacy with age.

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[1]Martha Kerr, "Oral Contraceptives Linked to Increased Carotid Plaque," *Cardiology Review*, November 8, 2007, http://www.cardiologyreviewonline.com/reuters_article.asp?id=20071108clin003.html.

Sexual intercourse is a profoundly meaningful act, and one can only hope that many elderly men and women have gained the wisdom to see that. In my clinical experience, however, I have not always found this to be true. As I have stated in previous narratives, a greater appreciation of Pope John Paul II's teaching on the theology of the body would be a blessing for all adults, especially those who are married. For those in extramarital relationships, it might also help them understand the destructiveness of such relationships.

When prevailing mores do not support chastity as a worthy goal, it seems a steep uphill battle to proclaim the liberating truth about sexuality as John Paul II proclaimed it. Still, his words have a way of resonating with every human person and generous soul. In his general audience of November 21, 1979, in talking about the creation story in the Book of Genesis he says, "Before all else, . . . the future-oriented expression 'the man . . . will unite with his wife' so intimately that 'the two will be one flesh' always leads us to turn to what the biblical text expresses"—the profound union of God and humanity that is also expressed in the unity of a man and woman in "the very mastery of creation."

Greg F. Burke, M.D., F.A.C.P.
Geisinger Medical Center
Danville, Pennsylvania

[2] John Paul II, *Man and Woman He Created Them: A Theology of the Body*, trans. Michael Waldstein (Boston: Pauline Books and Media, 2006), 167.