David S. Warner, M.D., Editor

Therapeutic Benefit of the Anesthesiologist–Patient Relationship

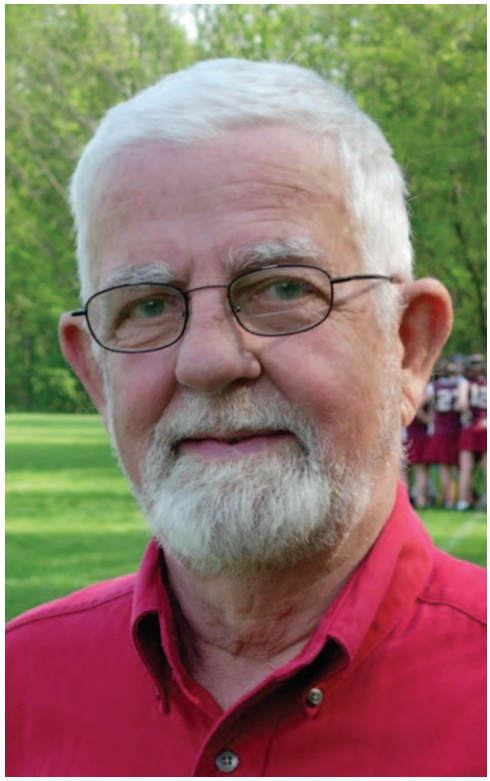
Lawrence D. Egbert, M.D.,* Stephen H. Jackson, M.D.†

The Value of the Preoperative Visit by an Anesthetist: A Study of Doctor-Patient Rapport. By Egbert LD, Battit GE, Turndorf H, and Beecher HK. JAMA 1963; 119:1465-8. Reprinted with permission. Copyright © 1963 American Medical Association. All rights reserved.

Abstract: The psychologic effect of the preoperative visit by an anesthetist has been compared with the effect of pentobarbital for preanesthetic medication. Patients receiving pentobarbital 1 hour before an operation became drowsy but it could not be shown that they became calm. Patients who had received a visit by an anesthetist before operation (informing them about the events which were to occur on the day of operation and about the anesthetic to be administered) were not drowsy but were more likely to be calm on the day of operation. The importance of the preoperative visit probably explains, in part, the difficulties previous investigators have had in showing sedative effects from the barbiturates and narcotics before operation. The tremendous emotional significance to a patient of illness or an operation may explain why physicians are able to exert such influence upon their patients.

> *"The public has a right to expect humanistic behavior in its physicians … [which] … requires high standards of humanistic (as well as moral and ethical) behavior in the professional lives of every candidate."*[1]

It seems logical that this declaration in 1983 by the American Board of Internal Medicine—humanistic qualities of an internist's practice are integral to competent clinical care—also applies to the "*internist of the operating*



Lawrence D. Egbert, M.D.

* Visiting Assistant Professor of Anesthesia and Critical Care Medicine, The Johns Hopkins University School of Medicine, Baltimore, Maryland. † Past Chairman, Department of Anesthesiology, Good Samaritan Hospital of San Jose, San Jose, California.

Received from the Department of Anesthesia and Critical Care Medicine, The Johns Hopkins University School of Medicine, Baltimore, Maryland, and Department of Anesthesiology, Good Samaritan Hospital, San Jose, California. Submitted for publication August 12, 2013. Accepted for publication August 21, 2013. The research for and preparation of this revisited article were supported solely by the authors' personal funds. Table 1 was prepared by Annemarie B. Johnson, C.M.I., Medical Illustrator, Vivo Visuals, Winston-Salem, North Carolina.

Address correspondence to Dr. Jackson: Department of Anesthesiology, c/o Medical Staff Office, Good Samaritan Hospital, 2425 Samaritan Drive, San Jose, California 95124. hojacks@gmail.com. Anesthesiology 2013; 119:1465-8

room," the anesthesiologist. This year marks the 50th anniversary of the landmark 1963 article on humanism in anesthesia, "The Value of the Preoperative Visit by an Anesthetist."[2]

We recount the intertwined stories of those who believed in the value of a humanistic approach to the practice of anesthesiology, including Robert D. Dripps, M.D. (1910–1973), James E. Eckenhoff, M.D. (1915–1996), and Henry K. Beecher, M.D. (1904–1976). The preamble occurred in 1965 during a discussion between a novice Massachusetts General Hospital anesthesia resident (Stephen H. Jackson, M.D.) and his first attending (Lawrence D. Egbert, M.D.).

On the second day of his residency, Jackson was asked by Egbert to reflect upon his perception that Jackson appeared to be treating his patients "more like animals" than human beings. In completing his medical internship at Bellevue, a New York City public hospital, Jackson had struggled not only for the physical and psychological well-being of his patients but also for his own survival, acknowledging his weakened appreciation and empathy for the humanity of his patients and making a vow to rekindle what he believed to be his humanistic proclivities.

After completing his residency at the U.S. Naval Hospital in Philadelphia in 1956, Egbert had entered a fellowship at the University of Pennsylvania. His chair, Robert Dripps, often iterated his belief in the healing value of an anesthesiologist's preanesthetic visit, and occasionally used descriptive language akin to an ancient physician's "laying-on-of-hands."‡ Egbert was not swayed by Dripps' pronouncement even though that opinion mirrored one stated (but *not* supported scientifically) in the "Discussion" of a 1958 publication on preanesthetic premedication by James Eckenhoff and Martin Helrich, M.D. (1922–2013):

> *"…the anesthetist should never underestimate the value of the preanesthetic visit and discussion with the patient. The establishment of rapport and confidence will do more to allay fears and produce calmness than any amount of narcotics or barbiturates, and it is far safer for the patient."*[3]

However, Egbert was puzzled by the fact that this study reported that 64% of patients who had *not* received a preanesthetic barbiturate did *not* appear apprehensive immediately before the induction of anesthesia.[3] Egbert's common sense dictated that virtually every surgical patient *should* experience preoperative anxiety.[4] Indeed, a 1960 investigation that included an exhaustive postoperative psychiatric interview had determined that 92% of surgical patients admitted to "some degree of apprehension or fear."[5] Moreover, these authors disturbingly opined that anesthesiologists were "perceived as impersonal, distant figures who were skilled and efficient but not as 'real' [establishing rapport] as other physicians."

Having moved to the Great Lakes Naval Hospital in 1960, Egbert was determined to scientifically rebut Dripps' humanistic contention despite the prevailing perception that an "advantage" for the anesthesiologist was the absence of any need for a close social interaction or intense psychological relationship with the patient. Nonetheless, emotion is integral to both the experience of being human and the practice of medicine. Most illnesses involve not only the patient's physical health but also an emotional reaction to that illness. Each patient possesses a unique deeply personal psychological history that will likely influence his or her medical course. The surgical (and through the mid-20th century, inhalational anesthesia) experience could be one of the most psychologically traumatic occasions of a patient's life, offering the anesthesiologist the opportunity to assume the role of a patient's empathetic emotional ally.[6–9]

Egbert planned to study 1,000 patients with his colleagues Peter P. Bosomworth, M.D. (Chancellor Emeritus, University of Kentucky, Chandler Medical Center, Lexington, KY), Alan D. Sessler, M.D. (Emeritus President, Foundation for Anesthesia Education and Research, Rochester, MN; Emeritus Staff, Mayo Clinic, Rochester, MN), Raymond C. Bush, M.D. (Midland, MI), and Robert W. Woods Jr., M.D. (1929–2009). Routine hospitalization of patients on the evening before surgery provided ample time for anesthesiologists to meet with them. Such discourse could address a patient's feelings and emotions; goals and objectives; fears and concerns; hopes and values; preferences and needs; motivation and will to recover; and the meaning of their lives in the context of their surgery.[7,10,11]

Study patients were randomly assigned to either have or not have a preanesthetic visit by an anesthesiologist. All patients received preanesthetic intramuscular atropine, and half also were randomly assigned to receive intramuscular barbiturate. On the day of the surgery, nurse technicians blinded to group assignment queried patients about their emotional status. Patients were informed about the investigation of the effectiveness of the barbiturates, but *not* that of the preanesthetic visit.

Standard protocol for the Navy Bureau of Medicine and Surgery (BUMED) had been evaluation of all research projects. Confident of approval, Egbert had initiated the study, but 7 weeks later, permission was denied. BUMED declared it to be an established fact that the preanesthetic visit had no therapeutic value! However, analysis of what now had become unofficial data for 130 patients indicated that patients who received a preanesthetic visit were more likely to be calmer than their nonvisited controls, regardless of whether they had received

‡ Old Testament (The Torah: Philadelphia, Jewish Publication Society of America, 1962 Version)—Numbers 27:18, Deuteronomy 34:9; New Testament (King James Version)—Acts 6:6, 13:3, 8:17.

Table 1. Psychological Effects of Preanesthetic Visit Compared with Pentobarbital for Preanesthetic Medication*

	% Patients Feel Drowsy	% Patients Look Drowsy	% Patients Feel Nervous	% Patients Look Nervous	% Patients Adequate Psychological Condition
Control	18	11	58	63	35
Pentobarbital (PB)	30	34	61	55	48
Preanesthetic visit (PV)	26	15	40	47	65
Pentobarbital and preanesthetic visit (PB and PV)	38	36	38	45	71
Effect of pentobarbital	+12†	+22‡	0.5	–5	+9.5
Effect of preanesthetic visit	+8	+3	–20.5§	–13†	+26.5‡

*Adapted from the table in the original article.[2] Copyright ©1963 American Medical Association. All rights reserved. Adaptations are themselves works protected by copyright. So in order to publish this adaptation, authorization must be obtained both from the owner of the copyright in the original work and from the owner of copyright in the translation or adaptation.
Total number of patients in each group: Control = 57; PB = 44; PV = 62; PB and PV = 55. Data points indicate the percent of the total number of patients in each group that had a positive response. Tests for statistical significance: † $0.1 > P > 0.05$; § $P < 0.01$; ‡ $P < 0.001$.
For average effect of pentobarbital, $\frac{(PB-C)+(PB \text{ and } PV-PV)}{2}$. For average effect of preanesthetic visit, $\frac{(PV-C)+(PB \text{ and } PV-PB)}{2}$.

barbiturate premedication. To Egbert's dismay, Dripps had been proven correct!

Egbert then secured a position at the Massachusetts General Hospital and discussed his scuttled research project with his chairman, Henry Beecher, who had written extensively about premedication (although *not* visitation). With Beecher's support, Egbert recruited coinvestigators George E. Battit, M.D. (Associate Professor, Harvard Medical School, Boston, MA) and Herman Turndorf, M.D. (Retired Professor and Chairman, New York University School of Medicine, New York, NY). The Navy study's design was deployed. Four hundred forty-nine patients were enrolled into two different studies. One study compared the psychological effects of a preanesthetic visit by the anesthesiologist *versus* premedication with pentobarbital, and is the subject of this review. In that study, 218 patients were randomly assigned to four groups: control; preanesthetic intramuscular pentobarbital; preoperative visit by an anesthesiologist without intramuscular pentobarbital; and preanesthetic intramuscular pentobarbital plus the preanesthetic visit.

The statistically significant results (table 1) demonstrated that patients who received pentobarbital alone became *drowsy but not calm*, whereas patients who had a preoperative visit were *calm but not drowsy*. Thus, the anesthesiologist–patient relationship (rapport) established during the preanesthetic visit had a beneficial anxiolytic effect. This study validated that the anesthesiologist was able to fulfill the intellectual and informational as well as the emotional needs of patients, the authors even suggesting that the greater therapeutic value was the emotional support.

Anesthesiology and *Analgesia and Anesthesia* rejected the article. Not surprised, Beecher recommended its submission to the *Journal of the American Medical Association*. Egbert *et al.*[12] later also demonstrated that an anesthesiologist's preoperative discussions and reassurances measurably reduced postoperative pain.

Dripps' continuing interest in the therapeutic benefit of the preanesthetic visit led in 1963 to his chairing a committee of the American Society of Anesthesiologists that surveyed how effectively the American Society of Anesthesiologists was helping the specialty recruit an adequate number of qualified residents. The conclusions were ghastly:

> *Cursory or incidental contact with patients before and after operations fails to meet the essence of a real doctor's work, … [and also] the relationship with the patient during preoperative rounds often appears perfunctory, with primary attention given to the chart and only little interest shown in examination or discussion with the patient himself.*[13]

The practice of medicine couples the pursuit of medical knowledge and skills with their application to a unique individual. As such, medicine is both a science and an art. Before the advent of modern medicine, the art necessarily was the predominant element in the physician's limited armamentarium. Yet, the ability of ancestral physicians to heal was

real despite the devastating failures in attempts to treat disorders that now are easily managed. What they practiced was how to mobilize the best of the patient's desire and ability to recover from illness. The modern-day patient is as anxious and vulnerable as ever, seeking help from a caring, empathetic, and capable physician.

Despite the truism that medicine is the most scientific of the humanities as well as the most humanistic of the sciences, modern medicine appears to have lessened its embrace of the humanities and social sciences.[7,14,15]§ The diminution of the art of medicine and the attendant dehumanization and depersonalization of its practice imply that human beings may be perceived and treated in ways that do not acknowledge their human quality and unique identity, perhaps reflecting a similar proclivity of our culture and society.

Dehumanization, however, also applies to physicians' overview of themselves, contributing to their stress, burnout, physical and mental illness, chemical dependence, and suicide.[14,15] In contradistinction, humanizing the anesthesiologist–patient relationship is *bidirectional* in its therapeutic value, capable of enhancing the physician's own personal and professional well-being. The preanesthetic visit serves as the most opportunistic vehicle for the incorporation of humanistic principles into clinical anesthesia practice.

In this modern era of cost-containment and production pressures, the practicalities for achieving a humanistic preanesthetic interaction with patients faces an enlarging number and complexity of challenges that, importantly, demand efficient and effective emotional as well as cognitive communication skills.[8,16]

Anesthesiologists who forego this opportunity to serve as healers who provide comfort, empathy, and reassurance while earning trust and confidence suffer the loss of a hallowed medical "ritual."[17] The preanesthetic visit, "when viewed as ritual, is a reenactment of a healing scene that has played out through recorded history: one individual with expertise, anointed by society … attempts to relieve the suffering of another."

Attention to the human factor must be retained as a requisite component of the anesthesiologist's armamentarium for our specialty to survive as a profession. Without adherence to the humanistic aspects of the practice, the patient becomes just "another case," and the anesthesiologist devolves into simply a technician.[18]

§ On an encouraging note, the Association of American Medical Colleges plans to broaden its admission test from a traditional natural science focus to include a humanistic perspective and behavioral and social science concepts.

The authors thank the research assistance of Karen Bieterman, M.L.I.S. (Director and Head Librarian, Wood Library-Museum of Anesthesiology, Park Ridge, Illinois), and her Wood Library staff; and of George E. Battit, M.D., and Herman Turndorf, M.D. (coauthors of the revisited "classical paper"), and Alan Sessler, M.D. (Emeritus, Mayo Clinic, Rochester, Minnesota), in authenticating the historical facts recounted in this article. This article honors the memory of Henry Beecher, M.D., and Robert Dripps, M.D., as well as the love and respect for anesthesia history promulgated by Patrick P. Sim, M.L.S. (deceased) (Paul M. Wood Distinguished Librarian Emeritus, Wood Library-Museum of Anesthesiology).

References

1. American Board of Internal Medicine Subcommittee on Evaluation of Humanistic Qualities in the Internist: Evaluation of humanistic qualities in the internist. Ann Intern Med 1983; 99:720–4
2. Egbert LD, Battit GE, Turndorf H, Beecher HK: The value of the preoperative visit by an anesthetist. A study of doctor-patient rapport. JAMA 1963; 185:553–5
3. Eckenhoff JE, Helrich M: Study of narcotics and sedatives for use in preanesthetic medication. JAMA 1958; 167:415–22
4. Egbert LD: Preoperative anxiety: The adult patient. Int Anesthesiol Clin 1986; 24:17–37
5. Sheffer MB, Greifenstein FE: The emotional responses of patients to surgery and anesthesia. Anesthesiology 1960; 21:502–7
6. Fleming J: Nonpharmacological methods for dealing with preoperative anxiety: The uses of supportive conversation, Emotional and Psychological Responses to Anesthesia and Surgery. Edited by Guerra F, Aldrete JA. New York, Grune and Stratton, 1980, pp 37–50
7. Jackson SH: Humanism and anesthesia safety. Cur Rev Clin Anes 1988; 8:194–9
8. Halpern J: From Detached Concern to Empathy: Humanizing Medical Practice. New York, Oxford University Press, 2011
9. Jenkins MT: The role of the anesthesiologist in the doctor-patient relationship (Editor's note), Common and Uncommon Problems in Anesthesiology. Edited by Jenkins MT. Philadelphia, FA Davis, 1968, p 68
10. Jackson SH, Van Norman GA: Goals- and values-directed approach to informed consent in the "DNR" patient presenting for surgery: More demanding of the anesthesiologist? Anesthesiology 1999; 90:3–6
11. Spier C: The role of the anesthesiologist in the doctor-patient relationship, Common and Uncommon Problems in Anesthesiology. Edited by Jenkins MT. Philadelphia, FA Davis, 1968, pp 68–79
12. Egbert LD, Battit GE, Welch CE, Bartlett MK: Reduction of postoperative pain by encouragement and instruction of patients. A study of doctor-patient rapport. NEJM 1964; 16:825–7
13. Dripps R: Special Report. 1963 Anesthesia Survey: A Summary of the Pilot Study. American Society of Anesthesiologists Newsletter, 1963; August, Special Supplement
14. Jackson SH: Stress and the anesthesiologist. Sem Anesth 1993; 12:282–9
15. Jackson SH: The role of stress in anaesthetists' health and well-being. Acta Anaesthesiol Scand 1999; 43:583–602
16. Kopp VJ, Shafer A: Anesthesiologists and perioperative communication. Anesthesiology 2000; 93:548–55
17. Verghese A: A touch of sense: Patients and physicians connect through touch and trust. Health Affairs 2009; 28:1177–82
18. Schnapper N: What preanesthetic visit? Anesthesiology 1961; 22:486–8