Lewis H. Wright Memorial Lecture

Jerry A. Dorsch, M.D., and Susan E. Dorsch, M.D., to Present

Susan A. Vassallo, M.D., Chair
Lewis H. Wright Memorial Lecture Committee
Wood Library-Museum of Anesthesiology

This year's distinguished guests are Jerry A. Dorsch, M.D., Associate Professor Emeritus, Mayo Medical School, Mayo Clinic, Jacksonville, Florida, and Susan E. Dorsch, M.D., Jacksonville, Florida.

Jerry and Susan are the sole authors of the classic textbook *Understanding Anesthesia Equipment*, now in its fifth edition (2008). They have devoted their careers to explaining the mechanics of anesthesia machines, ventilators, vaporizers and monitoring devices in a comprehensive and orderly fashion. Generations of anesthesia residents and student nurse anesthetists have relied upon this book during their training, and it also has served as a reference resource for senior clinicians.

Over the book's 33-year publication history, their fascination with anesthesia devices has never faded, and now the names "Dorsch and Dorsch" are synonymous with "our equipment."

Jerry and Susan grew up in Wheeling, West Virginia. They met during the summer before Jerry's first year of medical school and Susan's senior year of college. They both graduated from West Virginia University School of Medicine and were married in 1967. Jerry completed an anesthesia residency and critical care fellowship at the University of Pittsburgh, and Susan completed an anesthesia residency at Mercy Hospital in Pittsburgh. During Jerry's first year of residency, they attended their first major anesthesia meeting in Miami, which focused on "Complications in Anesthesia." At a panel titled "Complications of Equipment," they were surprised and appalled at how little the panel members really knew about anesthesia equipment. When they asked themselves,

Jerry A. Dorsch, M.D., and Susan E. Dorsch, M.D.

Susan A. Vassallo, M.D., is Anesthetist and Assistant Professor of Anaesthesia, Massachusetts General Hospital and Harvard Medical School, Boston.

'Beyond Blue Lips: Advances in the Prevention of Hypoxia'

"Where do you look for this information?" they recognized the need for one complete reference source dedicated to only anesthesia equipment. Hence arose the idea and ambition to write their first book – while they were still in training!

E.S. Siker, M.D., was Susan's chief at Mercy Hospital, and from the outset he supported the Dorsches' concept. While on a speaking tour, he shared the Dorsches' proposal with other anesthesiologists. He returned to Pittsburgh with news that their idea had generated genuine interest. Dr. Siker advised the couple to proceed, arguing that even if a book were never published, they would gain in-depth knowledge about anesthesia equipment. Dr. Siker offered to review their manuscript and to provide photographic and medical illustration services. With secretarial help from Mercy Hospital and library assistance from the University of Pittsburgh, the Dorsches wrote a table of contents and two chapters just in time for the ASA Annual Meeting in October 1970. They approached various textbook companies, received favorable responses from two publishers, and within a few months signed a contract with Williams and Wilkins in Baltimore.

The Dorsches completed their training in 1971 and moved to Orange Park, Florida, where Jerry spent two years at the Naval Medical Hospital in Jacksonville. Susan worked part-time in private practice while their children were young. In 1975, the first edition of *Understanding Anesthesia Equipment* was published. The book was 311 pages, cost around $30 and was a huge success. Subsequent editions were published in 1984, 1991, 1999 and 2008. The third and subsequent editions included a chapter on "Complications of Anesthesia Machines and Breathing Systems," and the first topic discussed was "Hypoxia."

This year's Lewis H. Wright Memorial Lecture is titled "Beyond Blue Lips: Advances in the Prevention of Hypoxia." The topic evolved from the Dorsches' interest in both anesthesia equipment and advancements in safety. Susan participated in the development of the first standard for anesthesia machines in the United States (1979).[1] Key features of this standard were the inclusion of the oxygen fail-safe device, a consistent location of the oxygen flowmeter, and a unique knob for the oxygen flow control valve.

In 1982, the producers of "20/20" asked the couple to appear in a television story on the risks of anesthesia. The crew visited Jacksonville, and in the actual broadcast, Susan discussed the oxygen analyzer and how it could detect a hypoxic gas mixture in the breathing circuit. The story's final clip profiled a patient who suffered intra-operative hypoxic brain injury. The show generated considerable angst among the public, and some patients cancelled or delayed elective surgery after its broadcast. Although we take it for granted, oxygen analyzer use was not required in the 1980s, and its introduction into anesthesia practice was a milestone in our specialty's safety initiatives.[2]

The Wood Library-Museum of Anesthesiology is honored to have Jerry and Susan Dorsch as the 2008 Lewis H. Wright Memorial Lecturers. *Understanding Anesthesia Equipment* has been in print since 1975. Unfortunately, the fifth edition will be the final text by these authors. Thousands of anesthesiologists and nurse anesthetists have read their words and studied their illustrations, and anesthesia libraries throughout the world hold this book. We thank Dr. Jerry Dorsch and Dr. Susan Dorsch for their efforts to explain the intricacies of anesthesia equipment. Their work spotlighted potential pitfalls in our early anesthesia machine designs and brought to the forefront strategies to detect and prevent hypoxia. These achievements merit a place of honor in our specialty's history.

References:

1. Minimum Performance Safety Requirements for Components and Systems of Continuous-flow Anesthesia Machines for Human Use, ANSI Z-79.8, New York, American National Standards Institute, 1979.
2. Dorsch SE, Dorsch JA. Use of oxygen analyzers should be mandatory. *Anesthesiology*. 1983; 59:161-162.