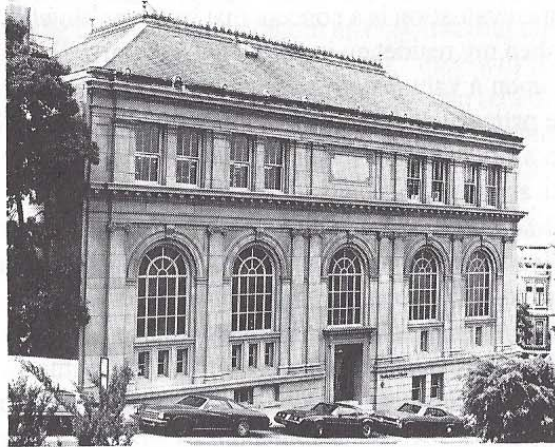


Arthur E. Guedel Memorial Anesthesia Center



The Guedel Center

The center offers an outstanding collection of rare and contemporary anesthesia literature, audiotape and videotape resources, as well as the ability to research specialized topics.

Waters, Guedel, and the Pre-anesthetic Evaluation

By Merlin Larson, M.D.

This year marks the 75th anniversary of the appointment of Ralph Waters as Assistant Professor of Surgery in charge of Anesthesia at the University of Wisconsin Medical School where he eventually developed the first academic Department of Anesthesiology. In recognition of this anniversary, the American Society of Anesthesiologists devoted the entire issue of their September *Newsletter* to discussions of Ralph Waters and the worldwide influence he had upon our specialty. The Anesthesia History Association, the History of Anaesthesia Society of Great Britain, and the Wood-Library Museum of Anesthesiology have co-organized a conference in Madison, Wisconsin, from June 6-8, 2002, to explore his legacy.

The Guedel Center has several files containing correspondence between Ralph Waters and Arthur Guedel. These letters cover the years between 1925 and 1940 when these two prominent anesthesiologists sought each other's opinions on several topics relating to the developing specialty of Anesthesiology. This correspondence provides a valuable historical resource that allows us to reflect upon the development of our specialty, both in terms of how we perceive ourselves,

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and how we are perceived by others. I was particularly interested in reviewing the thoughts of these two men about the pre-anesthetic evaluation

The pre-anesthetic evaluation is a concept that has been slowly changing over the years since I finished my residency in 1971. When I started in practice it was very common to wait upon a valuable document entitled the "History & Physical" as performed by the primary surgeon or his designated internist. How many cumulative hours have all of us spent awaiting this valuable document? Often, when this elusive paper arrives it contains an extensive evaluation of some portion of the contemplated surgical anatomy (eye or knee) and everything else "WNL" (within normal limits). Clearly, this "H & P" is often little more than a superficial attempt to fulfill necessary hospital requirements. Realizing this problem, several Anesthesia Departments have established their own pre-anesthetic evaluation clinics. These evaluations are often quite thorough and contain information that contributes significantly to peri-operative management.

With these thoughts in mind I re-read the correspondence between Waters and Guedel during the years of 1926 to 1928. Both men had been general practitioners before they specialized, and it seemed likely that they would have had opinions on the medical evaluation of the surgical patient. Indeed, I found my answer in a series of their letters. Waters thought a casual preoperative assessment of the patients' metabolic rate might be of some use, but Guedel gave an unenthusiastic endorsement of this idea. In his letters, Guedel routinely seemed to be focused almost entirely upon the intraoperative management of the anesthetic. This is demonstrated in a letter to Waters in which Guedel presents a case of death during T & A in the following manner:

Tonsils. Girl age 5. Second tonsil removed after about twenty minutes ether, did not bleed. First one bled (sic). Child dead. Intern picked it up immediately and was apparently on the job. I was called and got there in about fifteen seconds. Pale but no cyanosis and pupils down. Matter of fact my first guess as I sat in was that there was not much wrong. However heart stopped and stayed so. Post mortem (x-ray) showed considerable left-sided hypertrophy of the heart. I thought it was a lot, but the roentgenologist said that he had seen a couple bigger. After death history revealed that the child had been under care of her physician for heart disease for about a year. However, I do not think the surgeon knew anything about that history. At any rate, when Sister asked him who he wanted to give his anesthetic, his reply was the ordinary "Oh anybody: It's just a tonsil." They will learn some day.

Guedel—Cont'd

When one reads these letters, one's heart goes out to those who experienced such anesthetic misadventures as the one represented in this brief case report. There are many similar brief case histories within the Archives at the Guedel Center. This intern was giving the anesthetic without an endotracheal tube, no intravenous access, and no monitors. Guedel's comment that "they will learn some day" is entirely appropriate because even today a "T and A" can be a difficult anesthetic. Little wonder that 75 years ago bad results were all too frequent. It is very likely that these early anesthesiologists were often devastated by patient outcomes.

It is astonishing to me that Guedel's underlying thought in the letter is that *the surgeon* was unaware of the presence of congenital heart disease. He also seemed to imply that a more experienced anesthesiologist would have avoided any problems. Although this may be true, Guedel apparently had little interest in having his intern obtain the information about cardiac disease before the anesthetic was administered. This observation is not meant to diminish the stature of Guedel: He was simply acting out the role of the anesthesiologist of that time, which apparently was not to become involved in preoperative evaluations. Indeed, popular textbooks (Gwathmey) from the first part of the 20th century have no discussions on the pre-anesthetic evaluation although there are brief discussions on the value of premedications. Waters later (1940s) became one of the primary supporters for the anesthesiologists' involvement in the pre-operative evaluation. It has taken us decades to establish our role in this area when it would have been best to have had it from the beginning, 156 years ago, when the first anesthetics were administered.

**Ralph M. Waters, M.D., and Professionalism in
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A Celebration of 75 Years**

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