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Leon Chameides

Leon Chameides was born in 1935 in Katowice, Poland. The son of a Rabbi, he would live in this town and with his family only a few years as the winds of hate and war blew across Eastern Europe. He learned to speak Polish from his nanny and this became especially useful when his native German was prohibited in Poland. Just days before the beginning of World War II, his family fled eastward to the Russian half of then divided Poland. At age 7, he learned to live without his family who placed him in a Ukrainian monastery for his safety. A school aged boy, the now Levko Chaminski had to learn to speak Ukrainian and to pray in Church Slavonic in the Ukrainian Greek Catholic church until Poland's liberation by the Soviet army in 1944.

At age 9, he became an assistant to the man who took care of the many wounded soldiers brought to the monastery; Chameides' job was to wash bandages and replenish the supply by going into the woods to remove bandages from dead soldiers. He quickly learned the odors and colors of wounds that predicted death. Perhaps this experience contributed to his future focus on prevention of cardiac arrest, rather than just reanimation.

Chameides immigrated to the United States in 1949, following several years in Britain where he learned English. Living in New York City, he finished high school at age 16 followed by attendance at Yeshiva University to reclaim his culture and learn Hebrew and Yiddish. In 1955, he graduated Yeshiva College with a B.A. and then the Teacher's Institute with a Hebrew Teacher's Diploma. This educational focus would forever direct his medical interests.

He entered the first class (1959) at the Albert Einstein College of Medicine in New York, NY. He subsequently completed two years of pediatric residency at Strong Memorial Hospital, University of Rochester in Rochester, NY, USA, and then a year of pathology at Boston Children's Hospital, Boston, MA, USA. Military duty also contributed to his later focus, as he served in the US Public Health Service Heart Disease Control Program. He completed his medical training with a pediatric cardiology fellowship at Strong Memorial Hospital in 1967. As is often true, a single clinical experience during medical training proved a memorable, seminal event in his career. On July 1, 1959, the first day of his internship, at 8 a.m., a mother rushed into the emergency room of the clinic with her apneic 10-day old. Unsupervised, Chameides had no idea what to do. He quickly realized that no one else knew either and that, furthermore, the clinic's emergency room was unprepared for such an event. He stated that they "muddled through" a not-yet-defined resuscitation process, and miraculously the baby survived.

Once fully trained, Chameides directed what would be lifelong efforts to improve his environment. Seeing an opportunity for growth, he joined Hartford Hospital in Hartford, CT in 1967 as their first pediatric cardiologist. He soon began to build a program, which now consists of six pediatric cardiologists, and he remained Chief of Pediatric Cardiology for 30 years.

Chameides' abilities to build and lead a program soon became apparent. Starting in 1971, and for the next 10 years as Chief of Pediatrics at Hartford Hospital, he built the hospital's neonatology, intensive care, and ambulatory service, oversaw enlargement of the pediatric residency program, and recruited other pediatric subspecialists. He was part of a community-wide effort to consolidate the care of children that in 1996 resulted in the opening of a children's hospital, the Connecticut Children's Medical Center. In the early 1970s, he noted that there was no organized approach to resuscitation of newborns,

despite the fact that many were born with apnea due to heavy maternal sedation. Neonatal resuscitation consisted of slapping the neonate or blowing high-pressure oxygen in its face. Chameides recounts that one of his pediatric residents was bodily removed from the delivery room when he attempted to intervene. Chameides reasoned that if this problem existed in an institution with approximately 5000 deliveries a year, it must be a national problem, and that the solution had to be national and not local. Addressing the absence of resuscitation training programs and designated providers with resuscitation skills would become his lifelong passion.

Chameides became involved with the newly formed University of Connecticut School of Medicine (1968) and was part of a committee that developed its first cardiovascular curriculum; he became a founding member of its faculty and rose to the rank of Professor in 1985. He has published over 60 papers and chapters in pediatric cardiology; he is most proud of his *New England Journal of Medicine* article that identified maternal lupus as a cause of neonatal heart block. <u>1</u> Chameides enjoys the fact that this observation was made clinically in an office setting. This same clinical acumen and experience would be critical in developing the resuscitation guidelines.

Chameides' active involvement in pediatric resuscitation guideline development sprung from early participation in the American Heart Association (AHA). In the early 1970s, Chameides was appointed as a member of the Executive Committees of the Council on Rheumatic Fever and Congenital Heart Disease (now known as the Council on Cardiovascular Disease in the Young) and to the Committee on Professional Medical Education. In 1975, he was asked to answer a question posed by a pediatric cardiologist in Boston about the council's recommendation on the appropriate defibrillation energy dose in infants and children. To address this question, Chameides put together a task group consisting of Grace E. Brown, RN, John R. Raye, MD, David I. Todres, MD, and Peter H. Viles, MD, to review the issue and write a position paper. This resulted in the first AHA pediatric position paper, "Guidelines for Defibrillation in Infants and Children."<u>2</u> The only other existing pediatric resuscitation guideline consisted of a table of drugs.

While working on the defibrillation dose issue, Chameides became aware that an ACLS course was being developed; however, there was no similar focus on pediatrics! His goal was to have pediatric input. So he reconvened the previous task group and added Richard Melker, MD, a pediatric intensivist and emergency physician trained in pediatric anesthesiology and cardiology, to write pediatric guidelines for the 1979 National conference. Thus, although he was the sole pediatric representative at that conference, the first Pediatric Basic Life Support standards and guidelines for Neonatal life support came out of the 1979 Conference.3, 4, 5, 6 The American Academy of Pediatrics (AAP) initially questioned why the AHA had developed guidelines for children, especially for the newborn, but a "turf war" was avoided by a series of meetings between Chameides and representatives of the AAP, who ended up endorsing all the guidelines and the courses. By 1981, pediatrics had a seat at the AHA ECC table. Chameides' band of pediatricians officially had become a subcommittee of the Emergency Cardiac Committee (ECC), and he became the sixth member of the ECC. Chameides' goal was to develop a training course to teach, disseminate, and put into practice the pediatric guidelines. In 1983, under the auspices of the AHA, he chaired a National Conference on Pediatric Resuscitation in Dallas to develop as broad a base of support as possible for the guidelines and eventually the courses. Representatives from all the major organizations dealing with children's health participated in the conference. The Conference was a major success, concluding with

consensus that guidelines were needed in Pediatric Basic Life Support, Pediatric Advanced Life Support, and Neonatal Life Support, and that courses should be developed in each of these (Figure 2, Figure 3, Figure 4).7, 8, 9