



THE FACULTY OF MEDICINE
Harvard University

Henning Pontoppidan



(1925-2017) Henning Pontoppidan, MD, the Reginald Jenney Professor of Anaesthesia, Emeritus at Massachusetts General Hospital and Harvard Medical School passed away on October 20, 2017 at the age of 92. Dr. Pontoppidan was a world-famous, treasured and legendary anesthesiologist, teacher and pioneer in pulmonary intensive care. Dr. Pontoppidan established the first Respiratory Intensive Care Unit (RICU) in the country at the MGH in 1961. That RICU became a model for hospitals throughout the world and his academic works have become tenets in the field.

Henning Pontoppidan was born in Copenhagen, Denmark on July 24, 1925. After graduation from the University of Copenhagen Medical Faculty in 1952, he spent an internship year in a county hospital in northern Denmark. Henning immigrated in 1953 to the United States with his wife Yonna who was born and raised in New York, and a one year old daughter.

Dr. Pontoppidan often recounted the story of his interview in 1953 with the late Henry K. Beecher, MD, who served as anesthetist-in-chief at Massachusetts General Hospital from 1936 - 1969. Henning noted that Beecher, even without the usual libation of Scotch, offered him a position as a first year resident, to begin four weeks later.

Dr. Pontoppidan brought to the MGH his internship experiences in northern Denmark treating polio-induced respiratory failure in 1952. Thousands were hospitalized. Henning described teams of nurse anesthetists, interns and medical students providing manual artificial ventilation in poliomyelitis patients with respiratory muscle paralysis, utilizing tank and cuirass respirators. There he learned of the earliest

*In tribute to their dedicated efforts to science and medicine, deceased members of the Harvard Faculty of Medicine (those at the rank of full or emeritus professor) receive a review of their life and contributions with a complete reflection, a **Memorial Minute**.*

Scandinavian mechanical ventilators such as the Engstrom.

Henning was drafted into the U.S. Army Medical Corps and served as a Captain and Chief of Anesthesia at Fort Ord Army Hospital in California. That he received this choice posting was, according to Henning, a stroke of luck. During his initial interview for the US Army, his interviewer, a Norwegian-American captain, connected Henning's family name to that of the Bishop of Norway, the author of the captain's late 1700's Bible. Perhaps the captain also realized that Henning's great uncle, Henrik Pontoppidan, won the 1917 Nobel Prize for literature.

When Dr. Pontoppidan joined the MGH staff in 1958 after his Army service, he applied his expertise to the needs of MGH's surgical patients with respiratory failure. The yearly number of patients requiring long term respirator support was rising steadily. Dr. Pontoppidan noted that some patients died of untreatable disease but many patients died of preventable complications. Henning's seasoned competence in the practical world of anesthesiology, and the high respect with which he was held by his colleagues led to his being consulted frequently for help in managing these patients. Devices for the assistance of respiration were being developed and in the early days were sometimes unfamiliar to colleagues in other disciplines. Henning was an expert in their use and in their improvement. In 1959, Dr. Pontoppidan was appointed Medical Director of Respiratory Therapy.

Henning observed that care for surgical patients with respiratory failure was severely handicapped by having them scattered widely throughout the hospital, making daily rounds time consuming and care variable. Close attention and the capacity to respond rapidly to unexpected changes is often what leads to survival. Dr. Pontoppidan was the perfect person to petition for, and develop a central unit. In 1961, he established the 5-bed multi-disciplinary Respiratory Intensive Care Unit (RICU) on Phillips House 2 with specialized equipment, excellent physicians, nursing staff and an amazing view of the Charles River. The RICU remained a five-bed unit for eight years. Under Dr. Pontoppidan's leadership, the RICU became an active place for the continuing development of new techniques and equipment. It received minor research grant support but had a vibrant and well recognized clinical research program, and was a thriving center for studies in respiratory physiology and for teaching students and residents about this new specialty within the Department of Anesthesia.

After three years, 300 patients had been admitted to the unit with a survival rate twice what it had been before the RICU was founded. Several papers were published on the pathophysiology and management of respiratory failure, several of which were original and path-breaking for the care of critically ill patients.

Following Dr. Pontoppidan's strategic, practical innovation, the MGH increased the number of intensive care units, now numbering nine.

Dr. Pontoppidan with his many international fellows studied the use of positive end-expiratory pressure ventilation in acute respiratory failure, and synthesized the entire field of acute respiratory care. In

1965, together with MGH Drs. H. Bendixen, L. Egbert, J. Hedley-Whyte and M Laver, he published *Respiratory Care*, which became known as the “red bible,” after the color of the cover, the first textbook in the field of respiratory intensive care. He then worked to assure dissemination of this knowledge, running the first continuing education respiratory and critical care course given annually through Harvard Medical School in 1973. The course attracted large groups of US and international physicians, nurses and therapists to Boston and continued for many years despite the rising competition.

He also published a subsequent textbook in 1973 with Drs. Bennie Geffin and Edward Lowenstein entitled *Acute Respiratory Failure in the Adult*.

Dr. Pontoppidan was a gentle man with extraordinary intuition, wisdom, and great kindness. No clinician could remember him ever raising his voice (nor could his wife). He was a loyal, generous person with a wry sense of humor and a twinkle in his eye. He spent long hours with residents, fellows, medical students, nurses and respiratory therapists selflessly imparting his wisdom to the next generation of intensivists. Dr. Pontoppidan had an enormous influence on intensive care worldwide through his personal and professional relationships and his publications.

In 1988, Dr. Pontoppidan became the first Reginald Jenney Professor of Anaesthesia at Harvard Medical School and MGH, a chair endowed by Mr. Reginald Jenney, a grateful patient.

In 2011, on the occasion of the hospital’s bicentennial, Dr. Pontoppidan’s accomplishments were recognized with the establishment of the Henning Pontoppidan Visiting Professorship. Dr. Pontoppidan retired from the MGH in 1983.

When not at the MGH, Dr. Pontoppidan often enjoyed time with his artist wife Yonna and his family on Cliff Island, Maine, where he taught himself sailing and carpentry. Indeed, his home sparkled with the many pieces of beautiful furniture he built as well as with his wife’s artwork. Henning loved to be outdoors tending trees, gardening and enjoying wildlife, a passion which he passed along to his loving family.

Dr. Pontoppidan is survived by his three daughters, Michaela, Myanna, and Lisa, their spouses, two grandchildren, and one great grandchild.

Respectfully submitted,

Warren M. Zapol, *Chairperson*

Edward Lowenstein

Jesper Qvist

Paul S. Russell

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