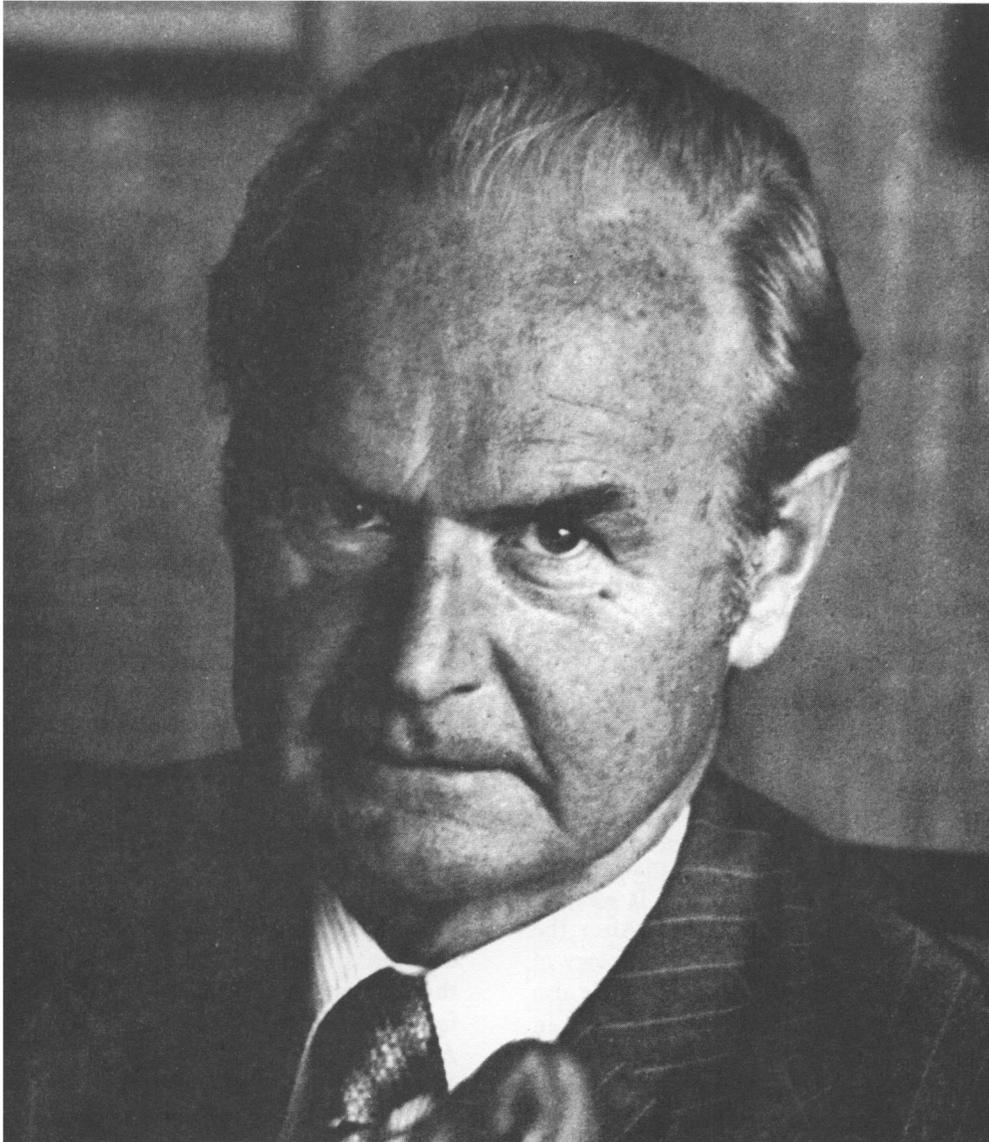


IN MEMORIAM
ASMUND S. LAERDAL



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Born October 11, 1913 Died November 19, 1981

Stavanger, Norway

innovator, designer, manufacturer, patron, and leader in acute medicine developments worldwide

In Memoriam

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Asmund Laerdal, a patron, catalyst and leader for resuscitation developments worldwide, died from cancer at his home in Stavanger, Norway on November 19, 1981. At the funeral services on America's Thanksgiving Day, we said thanks for what he has given the world. He was a great man, whose quiet, but determined, manners and eagerness to help whenever he perceived a need, earned him much respect and love.

Asmund Laerdal was born in Norway on October 11, 1913. He went to business school, traveled throughout Europe by bicycle during his youth, married Margit in 1939, and started a small printing business in 1940. Nazi occupation between 1941 and 1945 threatened his life, but did not wreck his little company. Throughout the 1940s and 1950s he printed childrens' books and calendars and made inexpensive wooden and plastic toys. The latter included "Anne Doll," the "toy of the year," made of soft plastic, with sleeping eyes and natural hair. It was the forerunner of the "Resusci-Anne" manikin. After the war, he acquainted himself with the new technology of plastics, and personally experimented with them. He also collaborated with artists. Triggered by research in America on mouth-to-mouth breathing in the late 1950s, he became known, during the 1960s, as an innovator of resuscitation equipment and training materials, particularly through his creation of the Resusci-Anne mouth-to-mouth and CPR manikins.

Asmund Laerdal was a man of creative contrasts: his one side showed sensitivity, generosity, warmth, kindness, compassion, humility and tranquility. His other side showed stubborn determination. This, however, was coupled with responsiveness to advice from people he respected. Imagination, vision, tenacious hard work and frustration tolerance helped him achieve results. He was in the true sense a self-made man, with the vision and compassion of a saint. His abilities as a businessman were

basic requirements for his success. However, in this world of selfish greed, men like Asmund, who deliberately shared their hard-earned wealth, are rare.

Asmund Laerdal reminds us of the immortality most human beings can obtain by becoming links in the chains of human development — he in the chain of modern resuscitation, which started in the 1950s. Since then, resuscitation has become one of mankind's noblest efforts. Asmund's historic contributions were in resuscitation and training materials, CPR implementation, research promotion and future vistas.

Asmund had been motivated toward involvement in first-aid through a near-tragedy in his family involving his young son Tore, and the fact that he made wound moulages in addition to toys. In the fall of 1958, Sten Florelius of the Norwegian Civil Defense asked toymaker Asmund Laerdal to make a plastic mask for human volunteers, through which to practice mouth-to-mouth breathing. Asmund went to Stavanger's anesthesiologist Bjorn Lind for advice about a full-sized life-like manikin he wanted to make, instead of the mask. Data on the superiority of mouth-to-mouth over manual ventilation had been published earlier that year in the *New England Journal of Medicine*, and were presented at the Scandinavian Anaesthesiologists' Meeting in Gausdal in August 1958, which Lind attended. Lind suggested that Asmund visit Safar, Elam and Gordon in the USA.

A few months later, in 1959, Asmund Laerdal and Hans Dahll of New York visited the American Red Cross and Safar at Baltimore City Hospital, with a developmental model of the mouth-to-mouth manikin. Safar's group made suggestions, and was elated, since local efforts to obtain a training manikin had been unsuccessful. Sculpturing a face proved difficult even for Asmund. The death mask of a Parisian girl, who drowned herself more than a century ago, was in the home of his in-laws. Her face became Resusci-Anne's. Her name came from Asmund's previous dolls. One year later, in December 1960, immediately after chest compressions for the treatment of cardiac arrest were re-discovered by Kouwenhoven at the Johns Hopkins Hospital (also in Baltimore), Asmund Laerdal came to America for the second time. After meeting with the doctors who, in 1963, founded the American Heart Association CPR Committee (Elam, Gordon, Jude, Safar, Scherlis), the Laerdal mouth-to-mouth manikin received a cheststring which upgraded it into a CPR training manikin.

In 1964, the Pittsburgh group added a recorder and pulse to Resusci-Anne, for education research. By 1970, Asmund's team in Stavanger had created and produced a new recording manikin. When clinicians needed an im-

proved Ruben self-refilling bag-valve-mask unit, the Laerdal Company developed one. Thereafter came many other creations and products, improvements of existing tools as well as new concepts. The latter included ingenious audio-visual self-training systems. Asmund's initiative and his company's expertise with making books led to the World Federation of Societies of Anaesthesiologists' CPR books of 1968 and 1981.

Laerdal products came into being through Asmund's unique responsiveness to needs, opportunities, research data, international recommendations and company leadership, and his ability to understand doctors and researchers, and to teach them the technical and commercial possibilities and limitations. Without Laerdal products, CPR would never have been implemented as rapidly and broadly as it was, and would never have reached the lay public, the most important first link in the chain of life support.

Designing and manufacturing, however, were only the beginning. When Asmund Laerdal perceived a need for international guidelines in resuscitation, he initiated and supported international resuscitation conferences (symposia) in Stavanger (1961) and Oslo (1967). He also supported the American Heart Association's standards meetings, and became a patron, behind the scenes, of other important gatherings which affected the development of resuscitation worldwide. For example, a Laerdal travel grant for Uppsala's Ake Grenvik, in 1967, to come for fellowship training to Pittsburgh, helped Pittsburgh's CCM physician fellowship program to catalyze a new worldwide specialty.

In the 1970s, Asmund gave advice about the Club of Mainz on Emergency and Disaster Medicine Worldwide. This, and his participation in international congresses, focused his interests increasingly on mass casualties, disaster preparedness, developing countries, public education and the inefficiency of relief agencies.

He recognized that the life blood of progress must be research. For example, in 1970, a Laerdal travel grant helped Bjorn Lind to spend a sabbatical year in Pittsburgh, which helped initiate brain resuscitation research. Asmund appreciated both imaginative thinking, as well as a search for the truth. He recently created The Laerdal Foundation for Acute Medicine. He helped financially and, as a contributing innovator, to initiate the Wolf Creek Club meetings of CPR researchers of 1975 and 1980.

Laerdal not only appreciated the importance of laboratory and clinical research, but also the need to quantitate the results of education materials and programs and of resuscitation services. He realized that merely proclaiming

that CPR "saves thousands of lives" is not enough, and that we need documentation and evaluation of quality of outcome.

Asmund Laerdal's contributions to mankind are being increasingly honored by the medical profession and by society at large. He was the first non-physician member of the Society of Critical Care Medicine and of the Wolf Creek Club, and honorary member of the Club of Mainz. It is good that he personally could still enjoy, in his last year, the honors conferred by the American Heart Association, the University of Pittsburgh, and the Scandinavian Society of Anaesthesiologists.

The University of Pittsburgh's Chancellor and Dean of the School of Medicine conveyed to Asmund Laerdal the University's Certificate of Recognition at the time of the Second World Congress on Emergency and Disaster Medicine in June 1981. The honor was "in recognition of his innovative and pioneering contributions for more than twenty years to the worldwide development of resuscitation. He designed and manufactured novel training aids and resuscitation tools. His selfless support, as a patron, of resuscitation symposia, recommendations committees and research programs in the United States and abroad have catalyzed important developments in resuscitation."

Even during the last months of his life, his thoughts were not for himself. His vision left behind several messages, including the following: (1) For *patient care*, the needed quality and innovations of technology depend on collaboration between industry, resuscitation researchers, and clinicians. (2) For *education*, he wants us to stress simplicity, realism and reaching the masses. (3) For *implementation*, he wants us to do more for underdeveloped countries and for peace. He also wants us, however, to be prepared for the worst by fostering "civil defense." (4) For *research*, we should give priority to current, important patient care problems. (5) For *continuity*, he wisely turned the leadership of his company and further pursuit of his visions over to his able and imaginative son, Tore Laerdal, without tying his hands. Fortunate is the man who dies only after he has secured the next link in the chain. Asmund Laerdal has another son, Age, a physician in Norway, and a daughter, Astrid.

We thank nature, his parents, his lifelong companion and wife, Margit, his three children, his other relatives, and his friends and associates for having created and influenced this unique man. We thank fate for having protected him in war and illness until others were ready to carry on. His influence will be felt forever.

Millions have been influenced by Laerdal's products, thousands by his thoughts, but only a privileged few by the twinkle in his piercing, loving blue eyes.

Peter Safar
Pittsburgh, USA November, 1981