

Friedrich Wilhelm Ahnefeld

Whenever the '*Chain of Survival Concept*' or the '*Rescue Chain Concept*', the original name of the concept in Germany (1966-[\[1\]](#)) are mentioned, the name Friedrich Wilhelm Ahnefeld (FWA) invariably comes to mind [\[5\]](#). Born on 12 January 1924 in Berlin, he spent his childhood and formative years there before going on to university in Poznan. No sooner had he begun his course of studies there than he was called into the German army and sent to the eastern front where he was severely injured. At the end of the war he was able to continue with his medical curriculum, first in Münster and later in Düsseldorf. With many young medical students returning from the battlefield and eager to continue their studies, medical schools were hopelessly over-crowded at that time. Ahnefeld soon found that the only chance to be accepted at university and to continue his medical studies, was by taking a somewhat different route. On learning that the catholic and protestant churches were looking for students to be trained for medical missionary work, he enrolled at the protestant faculty of theology of the University of Münster instead. But luck was on his side, and after only a short time he was able to get into medical school. Fortunately for medicine, this opportunity arose before he was lead to think seriously about giving his life an entirely different direction as a clergyman.

For the final part of his undergraduate medical curriculum he enrolled at the Medical Academy of Düsseldorf, where he passed his medical examination and was later awarded a doctor's degree for his thesis on a topic which already reflected an early interest in emergency medicine. In order to do research on this topic, he joined a pharmacological working group at the company IG Farben-Werke, Wuppertal, headed by the famous pharmacologist Helmut Weese, the developer of Evipan (Hexobarbital), one of the first short-acting i.v. barbiturates used in anaesthesia.

After obtaining his doctoral degree, he applied to the Friedrich-Krupp Hospital in Essen and the Bergmannsheil Hospital in Bochum, in order to study with one of the most famous surgeons of the time, Professor Bürkle de la Camp; training in surgery was then still customary for young trainee doctors, even for those wishing to specialise in anaesthesia. On graduating as a specialist in surgery he had already demonstrated a growing interest in intensive care medicine and, in particular, in the intensive care treatment of burn patients. This interest gave repeated impetus to a large number of clinical and experimental investigations at various institutions during his scientific career. These included animal experiments on the use of local therapeutics and their role in the development of organ failure in the treatment of burns, and the influence of colloidal volume replacement on the water and electrolyte balance in burn patients. Other investigations focussed on the improvement of the application of local therapeutics and local antibiotics to burned tissue, while studies on colloidal volume replacement solutions continued to be one major focus of Ahnefeld's scientific work.

At that time military hospitals still had the broadest experience in the treatment of burn patients, a reason why Friedrich Ahnefeld joined the Military Hospital in Koblenz in 1958, and soon thereafter the Department of Anaesthesiology in Mainz, where Rudolf Frey was appointed chairman in 1960. 'FWA' became one of the first trainees of Rudolf Frey. In 1964 Friedrich Ahnefeld graduated as a specialist in anaesthesia and qualified as a university lecturer at the Faculty of Medicine of the University of Mainz on successful

completion of his postdoctoral thesis titled 'Shock in burn patients, Clinical and experimental investigations'. The study of different aspects of shock remained one of Ahnefeld's major scientific interests throughout his clinical career.

A further scientific focus had already become apparent in his work during that period, i.e. the study of infusion therapy and parenteral nutrition. His fascination with this topic led him to join the famous Institute of Physiological Chemistry of the University of Mainz to study under Professor Lang, an internationally recognised expert in the field. Infusion therapy and parenteral nutrition remained at the centre of his scientific interest in future years. In Mainz he began to concentrate in particular on the 'political' aspects of emergency medicine, and initiated studies aimed at improving and standardizing the frequently inadequate technical equipment of ambulances and mobile life support units, leading to the development of official standards (DIN) for ambulances, mobile life support units, doctors kits, etc.

An intense awareness of the need for the reorganisation of the emergency medical services in Germany has remained a matter of vital concern for him until today. Investigations into the improvement of lay training in first aid and resuscitation, on the adequacy or inadequacy of training programmes for emergency medical technicians (EMTs) and paramedics have given rise to much debate in the scientific community. However, the training concept for EMTs co-developed by Ahnefeld in this context was implemented by federal legislation as late as 1990.

The University of Ulm was founded in 1967, and it was only a year later when Ahnefeld left the Military Hospital in Koblenz and the department in Mainz for his new post as Chief of Anaesthesia at the Military Hospital in Ulm, a clinical teaching hospital at the new university. At the same time, he was also appointed Chairman of the Department of Anaesthesiology of the University Hospital. The focus of his scientific work in Ulm was initially on obstetric anaesthesia. He was primarily involved in the clinical work of the department of Obstetrics and Gynaecology there, where the chief, Professor Karl Knörr, and his staff encouraged and welcomed clinical cooperation with specialist colleagues in anaesthesiology. It was, however, not long until this example was followed by all surgical disciplines, after 'FWA' had convinced even those department heads who were less readily persuaded than others that anaesthesia was not only for the benefit of the patient, but also in the interest of the responsible clinicians.

When Ahnefeld also was appointed Chief of the Department of Anaesthesiology of the Municipal Hospital of Ulm, he carried the responsibility for three positions. At different times in the future he served as Dean of the clinical faculty of medicine, and was further appointed medical director of the entire university hospital (Around that time—in 1971—I had the pleasure of joining the department, working there until 1983).

The growing importance of anaesthesia for the various joint ventures and institutions led the university formally to establish a professorial chair of anaesthesiology, which was held by Ahnefeld following an academic election procedure in 1973. Among his many medical administrative posts, the position of medical superintendent of the German Red Cross for a period of 3 years during the time of the Vietnam war led him—as the person responsible for medical operations of the Red Cross Hospital Ship Cap Helgoland—to a variety of places in South Vietnam.

FWA gave a memorable demonstration of his organisational talents during the term as president of the German Society of Anaesthesia and Intensive Care Medicine, when he organised one of the most widely recognised and attended annual congresses in Wiesbaden

in 1984, whose innovative programme attracted vast numbers of colleagues from all German speaking countries.

Despite a multitude of commitments and obligations, he continued and intensified his studies on the treatment of burn patients, and extended his efforts to the investigation of the controversially discussed administration of crystalloids vs. colloids in the prehospital treatment of emergency patients. Together with his research group he demonstrated conclusively that on-scene resuscitation (including intubation and stabilisation) of trauma patients improves outcome after trauma compared with the load-and-go concept. To give a full account of all of Ahnefeld's interests and concerns, would require the addition of a great number of additional accomplishments to this list—those mentioned here represent only a few of the scientific endeavours associated with the name of Friedrich Wilhelm Ahnefeld. Since the early seventies, emergency medicine has constituted a compulsory part of the medical curriculum in Germany. It was first made an integral part of all training courses for medical students in basic and advanced measures of cardiac resuscitation, trauma care, etc. and was later also offered in the form of a practical course on the assessment and treatment of comprehensive medical emergencies. Throughout his career Ahnefeld has been committed to the idea of integrating emergency medicine into the curriculum and the clinical practice of anaesthesiology. His efforts have contributed to making it the one of the main responsibilities of anaesthesia to provide training in various aspects of emergency medicine to medical students in Ulm, Mainz, and at a number of other universities. While this concept has attracted many medical students to anaesthesia, induced young physicians to specialise in anaesthesiology and to become emergency physicians, it has not always been readily realised. Various university anaesthesia departments in Germany initially did not accept, and even opposed the innovative ideas of Ahnefeld and others.

Ahnefeld officially retired from his chair at the University of Ulm in 1992, but he has nevertheless continued to actively work in different functions, e.g. as the general secretary of the German Society of Anaesthesia and Intensive Care Medicine, or as the official advisor to eastern German universities on behalf of the government of the state of Baden-Württemberg after the unification of Germany etc. As the organiser of various workshops he took a firm stand on various important political issues. For instance, one workshop dedicated to an evaluation of the present and future needs of emergency medicine in Germany has led to the publication of a keystone paper on the documentation and development of emergency medicine in the 1990s [3]. Another initiative just 2 years ago was dedicated to the 'requirements of drugs and equipment of emergency medical services system (EMSS)' [2]. Even after he finished his work as the general secretary of the German Society of Anaesthesiology he still served on various committees, primarily related to the standardisation of equipment, the realisation of training programmes for EMTs and paramedics, and the development of EMSS in Germany [4].

Although Friedrich Wilhelm Ahnefeld celebrated his 78th birthday in January 2002, his keen interest in many medical, societal and political developments in health care, and particularly in the development of emergency medicine remains undiminished. Intensity has always been an integral part of his personality. It is, in fact, impossible to imagine him without continuous involvement, a multitude of different interests, and a lively creativity which brings forth new ideas and finds ways of realising them. The interest generated by his thought-provoking ideas and activities extends beyond the scientific community, and he has received the highest honours and recognition for his work. Among these are the Order of the Federal Republic of Germany by the Federal President of Germany, the Ernst von

Bergmann Medal of Honour for his contributions to education and training of doctors in emergency medicine by the German Medical Council, the honorary doctoral degree of the Semmelweis-University Budapest in 1991, for assisting the Hungarian authorities in establishing an EMSS tailored to the needs of their country, and the Rudolf Frey Medal of the German Society of Anaesthesiology and Intensive Care medicine.

In addition to these honours, he was awarded honorary membership of the University of Ulm, the Germany Society of Anaesthesiology and Intensive Care Medicine, the European Resuscitation Council, and the German Interdisciplinary Association of Intensive Care and Emergency Medicine (DIVI).

The development of emergency medicine—not only in Germany—would hardly have been possible without the innumerable scientific, political and personal contributions made by FWA. It is wished and hoped by all concerned that his sustained emphasis on and involvement in emergency medicine may continue, even in the face of sometimes frustrating disappointments. Especially in view of the fact that it was FWA who spurred us on when frustration made us consider to halt our efforts, reminding us to look at what, in fact, had already been achieved, and to count our successes instead of the mishaps. We cordially wish him many more years of good health spent with his wife, children and a growing number of grandchildren.

References

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