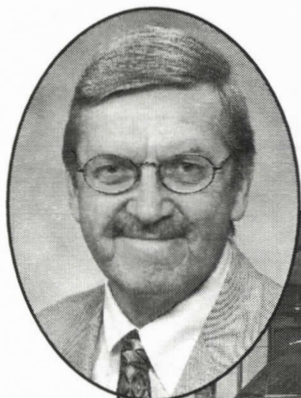


## Roger D. White, M.D. — An Unsung Hero

Peter Southorn, M.D.



Most anesthesiologists who have worked at Mayo admire Dr. Roger White for his skill as a cardiac anesthesiologist, his

expertise in interpreting complex EKG traces, and his leadership in teaching cardiopulmonary resuscitation (CPR). Since Roger is not given to self-promotion, what few of us may appreciate is that he is recognized by emergency medical technicians (EMTs) nationally for his devotion to improving their training, competence, and capabilities. His involvement in this endeavor preceded emergency medicine becoming a specialty in its own right and continues to this day. Most importantly his research in this field confirming that early defibrillation is the most critical component in resuscitating patients with out-of-hospital cardiac arrest caused by ventricular fibrillation has led to fundamental changes in how rapid defibrillation is made available. Successful application of this concept by the Rochester police officers and firefighters, along with paramedics, has led to the city of Rochester, Olmsted County, having the highest reported survival rate from ventricular fibrillation cardiac arrest in the country. This approach is now being utilized throughout the United States and, indeed, the world.

In 1966, while doing an internal medicine residency at Mayo, the army drafted Roger and told him he was to become an anesthesiologist. After his national service, he rejoined Mayo and went on staff in 1970. Since a child, Roger was always fascinated with ambulances, and on the day he was appointed a consultant, he contacted John Perkins, the owner of the Gold

Cross Ambulance Service in Rochester, to volunteer his services. This offer rapidly led to Roger devoting much of his free time to organizing and running a teaching program for EMTs and establishing new standards of care. In 1973, he was appointed the medical director of Gold Cross Ambulance Service—a responsibility he still holds today. The initial EMTs taught by Roger were among the first in the nation to be examined and certified by the National Registry of Emergency Medical Technicians. He, himself, was appointed one of the original board members of this organization. This and his becoming a member of the American Heart Association's Emergency Cardiac Care Committee gave national exposure to what was happening in Rochester, and manufacturers started field testing their new equipment here. These innovations included cardiac monitors, telemetry equipment, defibrillators, and pre-filled drug syringes. His papers from that time demonstrated the benefits that can result from teaching EMTs to start intravenous therapy, proper techniques to control the airway including endotracheal intubation, and proficiency in cardioversion and defibrillation. The latter particularly was a feat given that the defibrillators of that time were not automated and exceedingly cumbersome.

Roger began his practice carrying an emergency radio. This enabled the police and/or ambulance crews to contact him day or night if they perceived his help was needed. If so called, he would "run the code" and, if at all possible, drive to the scene in his own custom-designed ambulance: a modified station wagon provided by Gold Cross equipped with red lights and a siren. All this work led to some early notoriety and fame with the Gold Cross Ambulance Service being recognized nationally, the Rochester mayor proclaiming a Roger White Day, and an array of national and international awards, a few of which line the walls of his office.



In the early 1980s, Roger, Larry Vukov in Internal Medicine, and their colleagues at Mayo confirmed the experience of others in Seattle and King County, Washington, and in rural Iowa that early cardiac defibrillation was a key factor in successfully resuscitating patients in witnessed out-of-hospital cardiac arrest. This Mayo study was made possible by analysis of the data made available by Roger's early insistence that each resuscitation attempt be vigorously reviewed. In 1990, the U.S. Food and Drug Administration (FDA) approved the use of automatic defibrillators for the first time. Soon afterwards, Roger, knowing again from his data that the police often arrived on the scene of an accident or arrest a few minutes before other first-line responders, approached the police department in Rochester and suggested that they equip their squad cars with defibrillators and that police officers be trained in using and maintaining this equipment. He met with a very favorable response. He was appointed the medical director of the Rochester police department to oversee getting this new responsibility for the police officers off the ground. His intuition was to prove correct and, in 1994, again with Larry Vukov, he published a landmark paper demonstrating an improvement in cardiac arrest survival when the police officers first on the scene were able to initiate early defibrillation. In 1998, the Minnesota legislature approved funding to train and equip police forces throughout the state with such defibrillators. Since that time, the importance placed on early defibrillation in cardiac arrest resuscitation has spread worldwide and chances are, if you travel by plane today, it will have an automatic defibrillator onboard. This change in the philosophy of managing CPR is certainly known to everyone who has taken the basic or advanced cardiac life support course. Behind the scenes, Roger has also played a pivotal role in changing other facets in resuscitation, such as the importance of stopping futile resuscitation efforts.

Roger has received numerous awards and is a dear friend of many outside anesthesiology as a result of this immensely important work. He has twice been elected chair of the Board of

Directors of the National Registry of Emergency Medical Technicians and received numerous awards from the National Association of Emergency Medical Technicians, the American Heart Association, and the Food and Drug Administration. Early in his career, Roger was elected a fellow of the American College of Cardiology, and this year, our cardiology colleagues at the Mayo Clinic gave him a joint appointment in their department. Equally important to Roger, perhaps, is the deep friendship and affection with which he is held by many people. These would include Myron Ricks and Bernard Gilles—dear CRNA colleagues, now deceased, who for many years, under Roger's guidance, organized CPR courses at the Mayo Clinic; John Perkins and Jeff Harte at Gold Cross and indeed all of the paramedics there; the Rochester Police and Fire Departments; many civic dignitaries; and last but not least, Brian McGlinch, an EMT trained by Roger before entering medical school and now a member of our department.

Roger has multiple diverse interests outside medicine. He is an avid car enthusiast and a collector of ambulances with his most proud possession having been the last Cadillac ambulance to come off the production line. He has a deep commitment to animal welfare, particularly, the ethical treatment of animals in medical research. Another avocation is to take voyages on Great Lake ore carriers, which, according to his friends, offer him the best chance of relaxation from his normally hectic life.

Today, Roger continues to be a leading light and one of the few anesthesiologists involved in improving pre-hospital care, a field which now attracts others from multiple medical and surgical disciplines. His work, together with colleagues such as Dr. Norman McSwain, Jr., a trauma surgeon from Tulane University in New Orleans, has helped to define curriculum standards for paramedic training, resulting in major advances in pre-hospital care. It is doubtful whether any other anesthesiologist can claim an equivalent accomplishment.