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The Red Cross CPR Racket

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Introduction

Unexpected life-threatening emergencies usually occur in untoward circumstances, and they demand simple, safe, effective, and reliable measures to sustain life. As Parkinson predicted, [1] cardiopulmonary resuscitation (CPR) training programs have become ubiquitous employment requirements for doctors, nurses, respiratory therapists, paramedics, and other health care workers throughout the world. They began with relatively simple Red Cross "Basic Life Support" (BLS) training to salvage drowning victims but have transmogrified into "Advanced Cardiac Life Support" (ACLS), "Advanced Trauma Life Support" (ATLS), "Pediatric Advanced Life Support" (PALS) and even "Neonatal Advanced Life Support" (NALS). These programs promote complex, confusing polypharmacy protocols that invite toxic drug-drug interactions and life-threatening mistakes. Their tedious, tiresome, and expensive training requires re-certification at two-year intervals, usually at employee expense. They provide a bonanza for the Red Cross and American Heart Association, and hospitals have embraced them for the sake of public relations, but their practical value is never questioned. This essay will review the history of CPR and examine its shortcomings.

The Origins of Cardiopulmonary Resuscitation (CPR)

The origin of modern CPR began at the turn of the previous century, after European medical research clarified the mechanism of oxygen transport and delivery that captures oxygen in the lungs and delivers it to cells deep within the body [2]. Disruption of this mechanism, usually by asphyxiation, heart attack or stroke, halts cellular oxygenation, causing permanent brain damage within minutes that is soon followed by death unless its function is promptly restored. Thus, the objective of CPR is to restore the function of this vital mechanism, which is nowadays inexplicably absent from medical textbooks, education, and knowledge.

Dr. George Washington Crile and CPR

Though he is now nearly forgotten, Dr. George Washington Crile is one of the most important figures of modern medical history. He played a major role in the development of CPR, scientific anesthesia, and management of stress, sepsis, and critical illness at the turn of the previous century [3-7]. He dedicated his medical career to determining the cause of what was then called "shock" after watching his best friend die slowly after being struck by a streetcar and having both legs amputated. He became a trauma surgeon and built his own dog laboratory, where he demonstrated that dogs can be resuscitated with closed-chest compressions, epinephrine, and atropine [3-5,8]. He performed the first successful life-saving blood transfusion, and proved that scopolamine premedication, morphine supplementation, prilocaine infiltration, advance hospital admission, and delayed hospital discharge all improve surgical safety and outcome. He demonstrated that harmful nervous activity plays an important role in causing shock, and he cured sepsis and peritonitis with massive intramuscular morphine that rendered patients comatose for a week at a time when primitive needle technology precluded intravenous access and antibiotics were unknown [3]. Most of his contributions are now inexplicably abandoned and forgotten, but could be more useful than ever with modern machines, medications, and monitoring.

Dr. Yandell Henderson and CPR

During the same era as Crile, Dr. Yandell Henderson, the director of the human physiology laboratory at Yale Medical School, became the world's foremost expert on gas pathophysiology and led an international team of researchers to research respiratory physiology at the top of Pike's Peak [9]. He studied the problem of unexpected postoperative respiratory arrest and death after uneventful surgery that plagued the early days of ether anesthesia, and determined that surgical stimulation causes spontaneous hyperventilation which dangerously depletes CO_2 body reserves that undermines postoperative respiratory drive. He recommended that anesthetized patients breathe Carbogen, a mixture of 5% carbon dioxide and 95% oxygen in a pressurized tank during surgery to prevent CO_2 depletion. This eliminated not only the postoperative respiratory arrests but also unexplained deaths during surgery [10].

Henderson proceeded to perform animal experiments which demonstrated that inhaling Carbogen dramatically increases cardiac output and venous return to the heart, and can be used to treat cardiorespiratory arrest, smoke inhalation, heart attacks, strokes, asthma, atelectasis, pneumonia, carbon monoxide poisoning, alcohol inebriation, drug overdose, and newborn babies with breathing problems. However, his research was ignorantly ignored by doctors, who believed that carbon dioxide was toxic and dangerous [10,11].

Nurse Anesthesia and CPR

Physicians being in short supply after WWI, Dr. Crile established the first school of nurse anesthesia at Case Western Reserve University in Cleveland, Ohio, and installed his favorite nurse, Agatha Hodgins, as its director. The nurses embraced the research of Crile and Henderson. They used intramuscular morphine pre-medication to minimize surgical morbidity and mortality, and supplemented anesthetic gas mixtures with carbon dioxide to counteract morphine respiratory depression, prevent ether fires and explosions, speed induction and emergence, optimize cardiopulmonary function, preclude hypoxic organ damage, and prevent postoperative respiratory depression, heart attacks, strokes, bowel ileus, atelectasis, pneumonia, pain, nausea, vomiting, renal failure, delirium, and dementia. They became famous for their superior surgical outcomes, but doctors resented their success.

Carbogen, CPR, and Strokes

The nursing success inspired physicians to embrace Carbogen, whereupon it became commonplace in hospitals, clinics, and on fire trucks in major cities [10]. Carbogen offered a superior means to treat cardiopulmonary arrest, because it simultaneously stimulates respiratory drive, reduces microvascular flow resistance, speeds the delivery of oxygenated blood to vital organs, and releases oxygen from blood into oxygen starved tissues. It was an ideal emergency treatment for heart attacks, strokes, asthma, atelectasis, aspiration, pneumonia, drug overdose, alcohol inebriation, drowning, smoke inhalation, and newborn babies with breathing problems.

Carbogen is a perfect emergency treatment for strokes, which may be either "hemorrhagic" or "ischemic" in nature. Both types of strokes produce identical symptoms of brain dysfunction and cannot be clinically distinguished from each other. Hemorrhagic strokes make up about 13% of strokes. They occur when a weakened vessel ruptures and bleeds into the surrounding brain. The blood accumulates and compresses the surrounding brain tissue. Powerful anticoagulants such as streptokinase can quickly restore perfusion, oxygenation, and function to ischemic brain tissues, but they can catastrophically exacerbate brain bleeding in hemorrhagic strokes. Because of this, anticoagulant treatment is typically withheld until a brain scan confirms the absence of brain bleeding. The consequent delay can worsen the outcome of ischemic strokes, which are far more common than hemorrhagic strokes. Carbogen directly releases nitric oxide from the vascular endothelium, which lowers microvascular flow resistance and restores perfusion and oxygenation to ischemic tissues, but it has no anticoagulant properties, so that it promptly restores oxygen delivery to ischemic brain tissue without worsening hemorrhagic strokes.

Anesthesiology and CPR

Carbogen saved countless lives, and it came close to revolutionizing medicine, but there was a problem. The nurse-anesthetists used the original "closed circuit" anesthesia machines that were designed by Dr. Donald Jackson to conserve anesthetic gases, which were so expensive as to render anesthesia unaffordable [12]. With Jackson's defective machines, overenthusiastic CO_2 supplementation occasionally caused CO_2 asphyxiation that disrupted oxygen transport and delivery. This manifested as alarming hypoxic brain convulsions that were called "ether fits" and were incorrectly attributed to CO_2 toxicity [13-15]. This enabled Dr. Ralph Waters, a talented salesman and a Master of Politics, to devise a powerful political strategy that wrecked the reputation of the nurses and replaced them with his MD anesthesiology residents.

Dr. Ralph Waters and the Anesthesiology Profession

Power, politics, privilege, and persuasion perpetually prevail over all forms of human endeavor, to the detriment of science and civilization. Dr. Charles Bardeen, the son of a wealthy New York publisher and the first graduate of Johns Hopkins Medical School, was chosen to be the Dean of the University of Wisconsin Medical School. He selected Dr. Waters to become the first Chairman of a university anesthesia department in the world. This conferred tremendous prestige and Dr. Waters knew how to use it. He immediately conspired with Dr. Chauncey Leake, a war gas researcher with a questionable academic background who was the Chairman of the Pharmacology Department at Wisconsin, to devise specious animal studies that confused CO_2 asphyxiation with general anesthesia [13,16,17]. Dr. Waters also fabricated fictitious accounts of CO_2 toxicity from imaginary practitioners, and vilified carbon dioxide as "toxic waste, like urine" that must be "rid from the body" using mechanical hyperventilation during anesthesia [18-20]. To this day, nobody has dared to challenge these blatant scientific atrocities, which successfully wrecked the reputation of the nurse-anesthetists restored the pervasive dogma that CO_2 is toxic and dangerous, even though it is benign, beneficial, and essential for plant and animal life. Dr. Waters carefully placed his MD anesthesiology residents in prominent universities and hospitals [21]. Having thus founded the anesthesiology specialty on false science that has reversed medical progress and killed countless patients ever since, he promptly and mysteriously retired at the age of 65 and refused further contact with the profession he created [21-23]. Seldom has a single civilian caused so much harm to so many [13,14].

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The American Heart Association and CPR

The American Heart Association (AHA) was founded as a professional society for physicians after WWI. In 1950 it began publishing a journal called "Circulation" that specializes in cardiovascular breakthroughs. Its website offers a useful historical summary of CPR developments (https://cpr.heart.org/en/resources/history-of-cpr#15) including the ability of external chest compressions to sustain brain viability, and the ability of portable external defibrillators to restore cardiac function, but it has always ignored the therapeutic benefits of carbon dioxide and narcotics. In 1975, during my anesthesiology residency, it published the first ACLS textbook, which provided the foundation for CPR training programs that have spread throughout the world like a corrupt contagion.

The American Red Cross and CPR

What's not to like about the Red Cross? Its founder, Clara Barton, became a teacher at the age of 17, founded a "free school" in New Jersey that enrolled 600 students, and demanded pay comparable to her male counterparts at the patent office in an era when the evils of patriarchy relegated women to the subservient status of wives and mothers. During the American Civil War, she gathered medical provisions from family and friends, and delivered them to Union battlefields where she tended to soldiers in makeshift front-line field hospitals with kind words, prayers, common sense, and family letters. After the war she identified the missing and dead, campaigned for the Geneva convention, and led the American Red Cross to become an international organization while it provided relief to victims of floods, hurricanes, tidal waves, famine, and war. During WWI it staffed hospitals and ambulance companies, collected blood, and recruited nurses to serve the military and combat the 1918 influenza epidemic. Since WWII it has focused on first aid, water safety, accident prevention, home care, and nutrition. However, its postwar involvement with lucrative CPR training has become an avaricious fly in its immaculate ointment.

My Personal Experience with CPR

I first encountered CPR training when I took a Red Cross "water safety" training course in high school, which in those days was provided as a free public service. As a result, I discovered an old Red Cross water safety handbook that I believe represented Crile's original CPR technique. It recommended that CPR be performed with the victim in a prone position, with his hands placed beneath his face and his head turned to the side. With this position, gravity drained vomit away from the airway and prevented its aspiration into the lungs. The rescuer sat on the victim's buttocks, placed his hands on the victim's posterior chest, and rocked his weight back and forth to simultaneously refresh air in the lungs and squeeze oxygenated blood from the heart into systemic circulation. A single rescuer could maintain this efficient method without help for prolonged periods of time. This older approach seemed more sensible than the then-current Red Cross CPR method, which advocated a supine position to enable "mouth-to-mouth" resuscitation with the exhaled breath of the rescuer, and anterior chest compressions to sustain blood circulation. The supine position invited clogging of the airway by unexpected vomiting, and it necessitated either two rescuers or obliged a single rescuer to alternate between blowing air into the victim's lungs and pressing on his breastbone to force blood from the heart into systemic circulation. Furthermore, as anyone who has tried it knows, rhythmically pressing on the breastbone from a sideways position is exhausting, and it often causes rib fractures. Whoever introduced these questionable CPR changes seems to be lost to history.

More recently the Red Cross training has advocated bag and mask ventilation instead of the distasteful mouth-to-mouth technique, but bag and mask breathing invites over-enthusiastic air exchange that depletes CO_2 and undermines oxygen transport and delivery, while bag and mask equipment isn't likely to be available outside a hospital [2].

By the time I began my anesthesiology residency training at UCLA, the published AHA CPR guidelines had inspired organized hospital CPR teams to attend "code blue" (unexpected cardiorespiratory arrest) events in the hospital. As an anesthesiology resident, I was required to attend these occasions, and I often found an intern or respiratory therapist mis-managing the bag and mask technique so that there was ineffective air exchange in the lungs, but this was ignored in favor of frantic efforts to administer complex AHA drug regimens. I was impressed by the drama, confusion, and futility. Then, a few years after I had entered private anesthesiology practice, I voluntarily signed up for a newly introduced ACLS (advanced cardiac life support) training program. Little did I suspect that this would soon become a tedious, torturous, and expensive requirement for anesthesia employment that required renewal every two years. To add insult to injury, each renewal required the purchase a new version of the expensive and ridiculously complex AHA "training manual" above and beyond the cost of the course, even though the differences in the updated versions were arbitrary and meaningless. I became increasingly disgusted by these dictates.

The Shortcomings of AHA CPR Guidelines

The dire circumstances of sudden death demand safe, simple, universally effective measures that can be applied immediately. Instead, the dogmatic AHA guidelines impose complicated, confusing, counterproductive methods and measures with multiple pharmaceuticals which must be administered in precise dosages and sequences based on age, weight, and circumstances that are nearly impossible to recall in emergent circumstances. Their dogma is based on arbitrary assumptions and manipulated statistics that serve only to justify onerous, expensive, and counterproductive re-certification.

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CPR success declines drastically with each passing minute following witnessed cardiorespiratory arrest, [24] and successful resuscitation is 10% at best. Some studies claim success as high as 25% in hospitals and clinics, where drugs and equipment are readily available, but such statistics are questionable at best [25]. In many cases surviving patients would have recovered with or without CPR, and successfully salvaged victims often die a day or two later, or suffer brain damage, broken ribs, and other complications. The most effective measures I observed were ventilating the lungs, defibrillating the heart, and treatment with epinephrine.

Meanwhile, the AHA guidelines completely ignore Carbogen, which is by far the safest, simplest, and most universally effective emergency treatment known. Its ability to resuscitate newborn babies with breathing problems and victims of drowning, smoke inhalation, carbon monoxide poisoning, myocardial infarction, stroke, and toxic gas poisoning has been proved on countless occasions in the forgotten past. Furthermore, CPR in the prone position is arguably safer and more practical than the supine approach advocated by the AHA guidelines.

Conclusion

The history of CPR illustrates the destructive influence of power, politics, and profit in science and medicine. The Red Cross and the American Heart Association should be permanently banned from involvement in CPR training because venal considerations have polluted their policies. The American Heart Association CPR guidelines are scientifically insane, as if they were intentionally designed to exaggerate morbidity and mortality. The merits of prone versus supine resuscitation, counterproductive drug regimens, and other aspects of CPR should be re-assessed, revised, and simplified by objective experts who are free of counterproductive financial motivation. Carbogen should be restored as the mainstay of CPR protocols. Tanks of Carbogen and portable automated defibrillators offer the simplest, safest, and most effective measures known. Tanks of Carbogen and portable defibrillators should be located wherever fire extinguishers are present in public buildings. They should be standard equipment on fire trucks, ambulances, and police cars, as well as hospitals, clinics, restaurants, swimming pools, golf courses, and everywhere else they might prove useful.

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