

Against All Odds

By Craig Challen, D.V.M., Richard Harris, M.B.B.S., with Ellis Henican. Penguin Random House Australia, 2020 (Softcover). Pages: 320. ISBN-10: 1760899453 (Softcover). ISBN-13: 978-1760899455. Price: \$30.00.

During a recent Academy of Anesthesiology meeting, John R. Moyers, M.D., Professor of Anesthesiology Emeritus at the University of Iowa Carver College of Medicine, delivered a riveting presentation about the operations and logistics involved in the 2018 rescue of the Wild Boars soccer team from the flooded Tham Luang cave in northern Thailand. Dr. Moyers's primary source was a first-hand account, titled *Against All Odds*, written by Drs. Craig Challen and Richard Harris, with editorial assistance from the talented journalist and storyteller Ellis Henican. Although everyone in the audience was aware of the ultimately successful outcome of the perilous adventure, we all sat in silence, driven into our own stillness, which became total absorption. So captivating was Dr. Moyers's lecture that I felt compelled to read the book to augment and sharpen the details of this astonishing story in my own mind.

Several decades ago, Supreme Court Justice Potter Stewart, when asked to describe his test for obscenity, famously stated, "I know it when I see it." Arguably, the same is true of professionalism; it is difficult to define, yet we recognize it when we encounter it. The medical historian Roy Porter wrote in his erudite book, *The Greatest Benefit to Mankind*, that the Hippocratic Oath presaged the western model of a profession, defined as an occupation characterized by the profession of an oath.¹ At its core, however, professionalism is so much more than oath-taking; it connotes a morally self-regulatory discipline dedicated to serving others. The term describes certain attitudes, values, and behaviors demanded of physicians, such as commitment to excellence, altruism, integrity, collaboration, lifelong learning, and deep respect for the human condition.² As I read *Against All Odds*, I kept reflecting on how the authors personified and epitomized professionalism, exceeding expectations with their heroism.

A combination of contextual background and granular detail is integral to understanding the gravity of the situation. Nine days into what was to become a 17-day harrowing experience, the 12 boys, ages 11 to 16 yr, and their 25-yr-old assistant coach were found alive by 2 internationally renowned British cave divers who swam through powerful currents and zero visibility more than 4 km into the interstices of the cave. The soccer team, having subsisted for more than a week on cave water, was crowded together on a ledge up a muddy slope from the flooded Pattaya Beach section of the cave. Importantly, after the marooned team was located, 3 Thai Navy SEALs (acronym for Sea, Air, and Land) stayed with the boys in their underground

confinement, keeping them healthy and hopeful, bringing daily meals and other much-appreciated supplies, and proving to be "the best babysitters ever." The rescue team was profoundly cognizant of the need to keep the boys' hopefulness alive, shielding them from the knowledge that a Thai ex-Navy SEAL had recently died in an especially treacherous part of the cave.

Torrential rains were expected soon, which would eliminate all hope of rescuing the stranded team from the inundated tunnels. With hours inexorably passing, no definitive rescue plan had been formulated. Each proposal seemed more desperate than the last.

It was into this slow-motion nightmare that 2 relatively unknown middle-aged Australian men found themselves summoned in July 2018. Dr. Richard "Harry" Harris, an anesthesiologist, and Dr. Craig Challen, a veterinary surgeon, were called on because of their unique combination of medical skills and cave-diving experience. Although we anesthesiologists have experienced the expansion over the decades of our wonderful specialty into multiple venues, including free-standing ambulatory surgery centers, pain clinics, and non-operating room anesthesia sites, few of us have volunteered our services in a subterranean location, arguably the ultimate non-operating room anesthesia assignment.

Cave diving is one of the world's most dangerous sports. The equipment requirements are complex. Divers must overcome the risks of silt-outs, floods, rockfalls, getting lost and confused in the stygian darkness, and losing one's line (the crucial guide needed to steer swimmers in and out of the cave), to cite but a few perils. Apparently, however, panic and mistakes kill more divers than geological surprises and equipment mishaps combined.

It was the sobering concern about the potentially lethal problem of panic that led to the proposal that the soccer team be anesthetized before (and while) being swum out, past jutting rocks, low ceilings, constricted corners, and narrow openings, by the world-class cave divers. Initially, Dr. Harris was adamantly opposed to this idea, considering it far too risky. Ultimately, however, he agreed that, based on medical, psychologic, and physical concerns, anesthesia was the best available option on a lengthy list of terrible choices. He reminded himself that Dr. Edgar Pask, a British physician and military officer during World War II, had shown that anesthesia and aquatic challenges are compatible. Dr. Pask and his New Zealand-born mentor, the eminent anesthetist Robert Reynolds Macintosh, had conducted research at the

Royal Air Force Physiological Laboratory to test whether inflatable “Mae West” life jackets could keep an unconscious pilot floating face-up in the water after ejection from his plane.³ Pask volunteered to be anesthetized and intubated, and had the experiments filmed while he was unconscious, submerged in water. He remained face-up, confirming that the jackets performed as intended.

This bit of history, however, did little to assuage the ethical dilemmas that Drs. Harris and Challen faced as medical professionals. Dr. Pask was an informed *adult* who *volunteered* his participation. No one had previously medicated children into unconsciousness, put diving gear on them, and then maneuvered them through flooded tunnels with constrictions so small a single diver could barely squeeze through, blinded by silt and darkness, doing it all by palpation. And what about monitoring standards? Although not specifically mentioned by the authors, blood pressure monitoring, pulse oximetry, and capnography were unavailable in this hostile environment, as was intravenous access. To further complicate matters, Harris’s wife Fiona, also a physician, was deeply concerned about the reputational damage he might sustain if the plan proved unsuccessful. Would he be viewed as a reckless anesthesiologist who caused the deaths of 13 young people? The possibility of becoming a second victim was not remote.

Bureaucratic barriers were not easily overcome. The Thai government, Thai medical authorities, Thai first responders, Thai foreign ministry, and, especially, the militia had ultimate authority and control. They were, not surprisingly, skeptical about the scheme and did not give final approval until moments before the plan was to be implemented. Moreover, an Australian government official informed Dr. Harris shortly before the rescue began, “. . .if something goes wrong with the children, it’s not impossible you could get caught up in the Thai judicial system.” It was further articulated that, because Harry was the doctor who would be administering the drugs, he would be the likely target if something unfortunate occurred. Although he was not eager to spend time in the “Bangkok Hilton,” Harry’s first concerns were the children and Coach Ekk, not his own skin, and he decided to forge ahead. (Ultimately, the Australian government’s request for diplomatic immunity for Craig and Harry was granted.)

Each of the boys was outfitted in full diving gear, with a tight-fitting, positive-pressure full face mask, a wetsuit, front-mounted cylinders, and a harness and buoyancy-compensation device to keep them floating horizontally. Everyone understood that a few unexpected gulps of water could change everything, culminating in disaster. After the boys were appropriately fasted and medicated with oral alprazolam and intramuscular atropine and ketamine, the youngsters, with their hands and feet tied to prevent possible thrashing, were guided through the cave by their own personal cave diver. (Earlier, Harry had taught the divers “Anesthesia 101,” instructing them on the proper technique for intramuscular ketamine supplementation when the boys displayed the slightest sign of ketamine emergence). Four

boys were rescued successfully each day. After three days of following this routine, on day 17, the last of the group emerged safely from the cave.

This book made me proud to be an anesthesiologist. The tone of the book is neither hagiographic nor narcissistic. Rather, it is honest, informative, and direct. While we meet several laudable individuals within these pages, the skill, courage, judgment, and altruism of anesthesiologist Harris were extraordinary. Truly an engrossing page-turner, this book is a pleasure to read. The high-stakes, drama-laden narrative is engagingly laced with earthy Aussie humor, genuine humility, and deep, affectionate respect for the tenacity, resilience, and courage of the 13 cave captives. *Against All Odds* does not merely provide a mesmerizing account of extreme non-operating room anesthesia, it affords the special privilege of spending time with 2 remarkable professionals as they encounter and surmount daunting challenges. I enthusiastically recommend this inspirational volume to a wide audience of nonmedical and medical professionals alike. It is one of the most uplifting books I have read in years.

I was gratified to learn that Drs. Harris and Challen shared the Australian of the Year 2019 award, and Dr. Harris received the Edgar Pask Citation from the Association of Anaesthetists of Great Britain and Ireland in December 2018. Finally, neither Craig nor Harry “has paid for a beer in a very long time.”

Competing Interests

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