

Residents' page

Jason Chang, MD

A certificate of Advanced Cardiac Life Support (ACLS) training is required for the first year of family medicine residency training in Canada. The scope of ACLS use during family medicine residency, however, varies from program to program. Even within the same program, some are more experienced with its use, some wait in anticipation, others are anxious to avoid its use. Dr Shane Neilson of

Memorial University comments comically and candidly, and even melodramatically on the "A" in the basic "ABCs" of ACLS during his residency so far.

Dr Chang is a second-year resident at the University of Alberta and is a member of Canadian Family Physician's Editorial Advisory Board.

Placing the tube

Shane Neilson, MD

I have intubated several patients. They can be divided into two categories: emergency and planned. In emergencies, people scramble, panic, and rush; they hover over patients and start chest compressions. A kind of chaos reigns: nurses page respiratory therapists, attending physicians, senior residents, anyone who can answer the call to resuscitate, to literally breathe life back into a patient, to force air into the organ that (according to standard protocol) takes primacy over all others, the lungs. In contrast, planned intubations feature calm nerves; expected success, and no disaster. As an intern, I found my intubations usually fell into the first category.

At my ACLS classes, there was a pliant, plastic, sexless dummy. The lower half was missing; there was no abdomen or lower extremity, just a chest, a head, and an all-important neck on this artificial amputee. After the station door closed, an invigilator said: "This man is not breathing and has no pulse. He is unresponsive. Start now."

Diligent student that I was, I recited the life support mantra in my mind: airway, breathing, circulation—the ABC medical alphabet that is

idiot-proof. The dummy yielded to my hands; it had no arms to flail about, only a supple neck that angled easily, lips that parted with two fingers spread apart like a scissors, and textbook anatomy guiding the path of the endotracheal tube. After connecting the tube to an Ambu bag, I watched the simulated thorax rising and falling with each breath I delivered. I passed the test.

Amazing simplicity

The endotracheal tube is 30 cm long; it is of varying calibre, from a quarter-centimetre to half-centimetre wide; it is transparent, flexible, and user-dependent. With a natural curve, beveled end, and graduated markings, it lies dormant in plastic packages until it is needed in operating rooms, crash carts, and ambulances. I remain amazed that a tool so simple in design—a polymer tube!—can bridge the gap between alveoli and atmospheric air, becoming a conduit for the gases that power our lives.

Similarly, the small act of taking breath amazes

me: inspiration, expiration, in and out—as quiet as a baby sleeping or loud and hungry when we are winded, gasping for air—the whoosh

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and suck of our living. I think of this sound, these images, as I reach for the tube, as I use it, as I wait for it to work. This is a kind of prayer.

As I do hospital rounds in the morning, there is no real urgency; all of my patients are breathing. When a code is called, I make the mad dash to someone who is already dead, charged with reinflating the lungs, with restarting the heart, with moving blood again. I am a picture of health: young, strong, energetic enough to be up all night and day, possessing a powerful set of lungs and a dependable heart. They are pasty, triple my age, and already gone before I arrive. Instead of a handshake, I reach for a pulse. If it is not there, I take a deep breath and prepare to intubate.

I needed this skill early in my residency training. The demand snuck up on me: after seeing so many ambulatory patients in clinics, I began to move further away from the lifeless dummy of a year ago. After several months of treating living, breathing human beings, I forgot that I would be responsible for bringing them back to life after they died. In my third month as a doctor, I responded to a code.

Performing the invocation

An obese man had his last spontaneous heartbeat. A bedside monitor showed asystole, the famous flat line, and a conflagration had started; other people arrived in a great heap, and the grand ritual began: *airway, breathing, circulation!* I initiated it.

I asked for an endotracheal tube, usual size; also a stylet, some lubricant, and a straight blade. The overhead lights shone down on him, dead as he was, paleness reflecting back the fluorescent dullness of his skin. A nurse began chest compressions, while another put air into his lungs with a bag-valve-mask. I ordered

everything to stop, opening the patient's mouth, pushing aside his tongue with the straight blade, and lifting up the soft palate. I was able to see the vocal cords, folded and unmoving, and the flaccid epiglottis, lying low on top of the esophagus. The prayer had already started. I was an ascetic at an altar as I was handed the tube, stylet extended to its length, its gentle curve ready for use. The procedure was smooth, the tube slid on through, and the prayer ended there. As chest compressions resumed, I began to order other things, drugs and intravenous solutions. Our efforts were unsuccessful.

A popular conception of death involves a dark tunnel with light at the end. The dying person's consciousness rushes down a tunnel, hurtling toward the light until the clichéd return to life, retracing that same tunnel to rush back to the living moment that was temporarily left. I consider resuscitation much the same: leveraging a person's death against the next little while of his or her life. A doctor takes an endotracheal tube in hand, molding it to his preference, and pushes it past the vocal cords, tunneling along until the tube is in place. Both of these processes depend upon the other. The doctor looks from the proximal end of the tube, calling out; the patient looks from the distal end, listening to the echo, and decides to come back or not.

It is a prayer: rushing to the scene, opening the tube packaging, placing the tube. I am not a religious man, but I believe in the tube, I have witnessed its power, and I do pray, in my own way, that it goes in, that there is a rescue. ♦

Dr Neilson is a second-year resident at Memorial University of Newfoundland in St John's.