Pre-Medicine Internship Program

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Resuscitating Hope: A Life-Changing Emergency Medicine Experience in Mombasa

May 29, 2025. My fourth day shadowing in the Casualty department of Coast General Teaching and Referral Hospital, and based on my experiences from earlier in the week, I had no idea what to expect.

9:00 AM. The time a young man was rushed to Coast General Hospital on a tuk tuk by a good samaritan. The victim had suffered a serious head injury from a head-on motorcycle collision. His face and upper body were bathed in so much blood that his injuries were not immediately apparent. Although his body was physically fit, his head appeared so inflamed it gave the illusion that he weighed over 300 pounds. Because neither his family nor friends were initially present (and therefore could not prove that they could pay the few USD required for medical attention), the patient sat in the bed, bleeding, sweating, covered in flies with little to no attention.

9:40 AM. After lying in bed dying for about 40 minutes, the patient's mother arrived, and a file was opened for him. The healthcare team led by Nurse Mogaka then arrived at the gentleman's bedside. Despite having grown accustomed to the hospital's slow operating pace, I had grown increasingly more frustrated. Finally, Nurse Mogaka ordered a small group of nursing students to clean the victim, head to toe. Another delay. I watched the students haphazardly clean the patient for about ten minutes, still confused by how large his head had inflated. During this time, I checked the patient's file. (first) Name: Chigamba; Age: 20 years, my age. The attending clinical officer (CO, a PA equivalent) asked me to copy his name and age onto other documents for lab work. Chigamba. 20 years. Chigamba. 20 years. Chigamba. 20 years. His image personalized into my memory each time I copied it onto the documents.

9:50 AM. After being cleaned, he was examined using a three step system: first, checking the patient's ABCD (airway, breathing, circulation, disability), second, recording AMPLE (allergies, medications, past medical history, last meal/drink, and events leading to present injury), and third conducting a full head to toe examination. The examination, not surprisingly, revealed Chigamba's airway was partially blocked by blood, his SPO2 levels were 87-89, and he had serious head trauma. Although I hoped the victim would be immediately sent for trauma imaging, the radiology department was backed up, so Chigamba continued to wait, slowly succumbing to his injuries.

11:15 AM. Dr. Twahir, while conducting rounds, arrived at Chigamba's bedside and recognized that he was attempting to aspirate his own blood from his throat, so Dr. Twahir moved the patient on his side in the recovery position. After which, Chigamba immediately began choking on his own blood. Although the suction machine was present, an airway suction tube was not initially available: a

consequence of the severely under resourced hospital. Frantically, I along with the entire ER healthcare team scoured the ER for a suction tube while Chigamba lay there painfully choking on his own blood. After about 90 seconds, a tube was brought, but by this point Chigamba fell into cardiac arrest. A CO intern immediately began compressions, Dr. Twahir delivered ventilation, and Dr. Salim suctioned blood from Chigamba's throat. The CO's compression rate was appropriate (100-120 bpm), but his depth was only about 1 inch, he was "bouncing" off the patient's chest, and only performing 15 compressions for every 2 breaths. In hindsight, I should not have been surprised, considering that in a study of 175 senior nursing students in Kenya, the average examination score of general CPR knowledge was 41.83% ± 8.29 (Ndungu, et al., 2022). I told Dr. Twahir that I am certified in BLS through the AHA, I notified the CO of his incorrect technique, and I asked to take over compressions.

Having taught dozens of CPR classes to hundreds of students, I guess I assumed that compressing on a real patient would be similar to practicing on the manikins. But there was something about placing my hands on his still, bloody chest and watching the healthcare workers frantically continuing to clear his airway that abruptly scolded that fairytale. I don't think that any number of hours teaching CPR could have prepared me for the emotional reality that had presented itself: I had to help resuscitate Chigamba.

I began compressing at 100-120 bpm, 2 inches deep, allowing for complete chest recoil, and at a ratio of 30 compressions : 2 breaths, and I completed 5 cycles while Dr. Salim continued to suction blood from Chigamba's trachea and while Dr. Twahir delivered ventilation twice after each cycle. After these cycles, the victim's vitals were checked and we determined that he regained a pulse. We resuscitated Chigamba. His airway, however, was still blocked, so we feared the patient would fall into arrest, again. While continuing to suction, we noticed his tongue was cut in half and stuck in his throat. His partial tongue was removed, and as Chigamba became somewhat stable again, we awaited a bed to become available in the ICU. After the successful resuscitation, Dr. Salim came over and told me, "nice work, bro," something I had heard dozens of times throughout my life, but never something I felt so proud to hear.

After somewhat stabilizing him, Dr. Salim told me that not a single healthcare provider in the ER was certified in CPR, and that Chigamba was the first patient that most healthcare workers had evern seen successfully resuscitated from cardiac arrest at Coast General.

12:15 PM. Nurse Magacka received a call that a bed in the ICU was available. My scheduled shift at Coast General had finished, but I notified my colleagues to inform my program mentor that I would be staying late at the hospital until I knew Chigamba had been moved to the ICU. During this time, a neurosurgeon, one of the only specialized physicians in Mombasa, told Dr. Twahir and Dr. Salim that the patient must be taken for trauma imaging before going to the ICU or "we will never get him out [of

the ICU]." After confirming that radiology could squeeze Chigamba into their backed up schedule, the patient was taken for a head CT, chest and pelvic x-ray, and abdominal ultrasound. The images revealed Chigamba had a skull fracture, orbital fracture, mandibular fractures, and an epidermal hematoma. Then, we brought him to the ICU.

The following day, I visited the ICU looking for Chigamba. I found him, right where I saw him last, lying in his bed, fighting. I asked Dr. Salim when he could be operated on, and I was told "he has to be able to breathe on his own before we will operate on him." The following week, I checked again, but he was gone. I asked the healthcare workers in the ER if anyone knew what happened to Chigamba, but no one knew. People say "ignorance is bliss," but I know better: Chigamba almost certainly did not survive. And while his death is saddening, the real tragedy is knowing that if he sustained the same injuries in a modern healthcare system, he most likely would have survived (Shyamal et al., 2015).

This experience strengthened my resolve to provide Basic Life Support (BLS) training in underresourced hospitals so that Chigamba would not be the last patient successfully resuscitated at Coast General. I painfully learned that (i) Healthcare workers in Mombasa, Kenya have limited access to CPR training courses and (ii) Kenyan programs that teach BLS are strikingly unaffordable for healthcare workers: about 7500 KSH (60 USD) (Orero, 2024). I had to make a difference. Consequently, I reached out to Nurse Mogaka, asking to teach a CPR class, and we coordinated our first class for June 5, 2025.

Back home in the United States, I've taught dozens of BLS classes to hundreds of students, teachers, nurses, principals, paramedics, and accountants. I've mentored five other motivated college students who team-teach with me. I've created a website to advertise my free classes, worked with an attorney to draft articles of association, and networked with underprivileged school districts to increase CPR's awareness. I've spent hundreds of hours working on my non-profit Works of Heart CPR. But June 5th's CPR class was different. I didn't have access to the 8 adult manikins, 8 infant manikins, 8 trainer AEDs, and 16 BVMs that I'm accustomed; I didn't have access to a large, air-conditioned room with ice-cold water to refresh my students after they delivered compressions. I didn't have a group of students who could guarantee arriving by the time I intended to begin the class. Yet, this was the best class I've ever taught – a full room of eager nurses, COs, and physcians motivated to improve their skills and use their limited resources to serve their community. It was this moment that reminded me that making a real impact doesn't require ideal circumstances, just willingness to be your brothers' keeper: to put the needs of others, the needs of people like Chigamba, before my own needs.

My experience in Mombasa, Kenya and at Coast General has motivated me to continue giving back to the community that shaped my perspective of the global need for improved healthcare. While in

Mombasa, I gratefully hosted three BLS classes for 48 students, prepared two healthcare workers to continue teaching BLS, and began fundraising for manikins and AEDs. These experiences have strengthened my interest in medical school while maintaining my passion for service. I plan to return to Kenyan hospitals in Nairobi, Mombasa, Kilifi, and Malindi with resources to teach BLS and train locals to continue providing these lifesaving classes. I'm just getting started.

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