

## Taking Off the Gloves

By Lane Robson

Momoh works hard to breath. His ribs move in and out as he uses all his chest muscles to open his tiny lungs and suck in oxygen. He grunts at the end of each expiration, a defense mechanism to keep his lungs open. His nostrils flare like a race horse pushed to the limit in the final stretch of a race. He's breathing one hundred percent oxygen but his blood level is only ninety. *How low was it before? And for how long!*

Torrential rains swamp the roadways. I walk over to the emergency room to sniff out potential intensive care admissions. Not a single patient in the emergency and no one waiting. I joke with the duty nurse that the first patient will be really sick. *Why else would a family brave such treacherous roads?*

I'm the duty physician in the pediatric intensive care unit at the Doctors Without Borders hospital in Kenema, Sierra Leone. There are five international doctors and twenty Sierra Leone doctors to care for eighty children. The international doctors are in charge. The Sierra Leone doctors are still learning.

After four days of fever and difficult breathing Momoh's mother braved the dawn roads and traveled for five hours. Momoh arrives at 11:00 AM. I happen to browse the emergency room and see him in the area reserved for critically ill children. Momoh's a year old. He has severe pneumonia. The preliminary vital signs confirm he's critically ill. His respiratory rate is seventy breathes per minute and heart rate one hundred and eighty, both very high. *Which will wear out first? His lungs or his heart?* His temperature is 39°C. I listen to his chest. The bronchial breath sounds in both upper lobes confirm very little air movement. The air that does move into the lower lungs is reduced and the characteristic tiny bubbly sounds of pneumonia are present. *Momoh's really sick.* By practiced protocol the emergency room staff treat with oxygen, intravenous fluids, and ceftriaxone. This antibiotic is his best hope. The test for malaria is negative. His blood sugar is normal. The hemoglobin is only a bit low. These are the lab tests available. His malnutrition scores place him just above the limit for moderate malnutrition. *I hope he has the strength to fight the infection.* The infection is ahead. It takes hours and sometimes a day for the antibiotic to work. Until then Momoh's in a fight for his life. His liver is large. This worries me. In pneumonia a big liver is often due to hyperinflated lungs that push the liver down into the abdomen, but Momoh's lungs are underinflated. Heart failure is another possibility. His blood pressure is normal and the circulation to his hands and feet satisfactory. *Not in shock, but might be close.* Momoh's drowsy, a neurological concern, but his neck is supple and his feisty cry with the blood tests is a good sign.

There are two open beds in the intensive care. I ask the emergency room staff to send Momoh when he's stable. I tell the intensive care staff to be ready.

At 1:00 PM the emergency room doctor comes over to advise Momoh is ready to transfer. The intensive care doctor suggests the transfer be deferred until 1:30 PM. The emergency room doctor is upset. He says Dr. Bob said it's ok to transfer the child. The intensive care doctor reminds him of the rule that no transfer can happen between 1:00 to 1:30 PM, when the intensive care staff is reduced. During this time there's a half-hour transfer-of-care meeting before the new nurses start their shift. The emergency room doctor isn't interested in rules and repeatedly points his finger at me to justify an immediate transfer. The disagreement heats up and the emergency room doctor raises his voice. The intensive care doctor keeps her cool. The disagreement escalates and I intervene. I go over and apologize to displace the emergency room doctor's anger. "I'm sorry, I told the emergency room staff to transfer the child when stable." The doctors continue to argue in Mende, the local language. I look around and realize there's only one nurse for the six children in the intensive care unit! *How did this happen?* I point out the short-staff-situation. I request Momoh stay in the emergency until the afternoon staff are back. The emergency room doctor leaves in a huff. I look at the intensive care doctor with eyes that ask for an explanation. "He's like that when he doesn't get his way, especially with women."

Momoh arrives at 2:00 PM. An emergency room nurse carries him over. His mother is right behind. All the intensive care staff are back. I count the nurses. Four Sierra Leone and one international. *Five is good for seven children.* Momoh is placed in a bed. His breathing, heart, circulation, liver, and alertness are the same as three hours ago. *Not worse is good.* This is a waiting game. Momoh needs time for the oxygen, intravenous solution, and antibiotic to work. I check the orders to ensure the oxygen flow rate, intravenous fluid rate, and antibiotic dosage is correct.

The morning intensive care doctor is still here. *Good.* I ask her to stay to review the chest examination findings. She's keen and immediately agrees. Teaching from the international doctors is coveted. I'm also keen. The chest examination findings are classic. I want to teach her about bronchial breath sounds. I ask the morning and afternoon doctors to examine Momoh with me. I ask each to listen to Momoh's chest and to describe what they hear. They do. I discuss what I hear and draw a diagram of his breath sounds so they can "see" what they hear. I spend a few minutes to discuss the physical examination. I listen to their questions and look in their eyes. *Good, they understand.* During the teaching I sit at the foot of Momoh's bed. When we finish the discussion the morning doctor thanks me and leaves.

I review orders with the afternoon doctor. Of the seven children three are unstable. Momoh is the sickest and most likely to get worse in the short term. We agree on a plan for Momoh and the other two unstable children. I get up to review another child. I don't reach the next bed. Momoh suddenly stops breathing. His heart stops. The nurse calls out urgently.

The afternoon doctor and I arrive at the same time. He starts bag and mask ventilation. I start chest compressions. Fifteen compressions then two breaths. Fifteen and two, over and over and over. After a few minutes I ask a nurse to take over the compressions. I correct his

technique. I check the ventilation is successful by listening in both lung fields. I check the compressions are adequate by palpating his carotid arteries. Another nurse checks his sugar. Still normal. We give adrenalin to stimulate the heart. No response. Time passes. I ask a nurse to spell off the nurse giving compressions. More time passes and we give another dose of adrenalin. Doesn't help. Still more time. More adrenalin. Still no heart rate. Since his heart stopped, he received continuous and effective ventilation and chest compressions, and three doses of adrenalin. Over half an hour passed without any response. Other more sophisticated interventions are available in Canada, but not in Kenema. We did what we could with the resources available. The Sierra Leone doctor looks at me. The decision to stop is mine. "Is there anything else we can do?" He shakes his head. I know and sadly nod. I ask the nurses to stop the resuscitation.

The mother kneels in a plastic chair between the beds. During the entire time she's been at his side behind me. Watching. Hoping. Praying. Her shoulders hunch over the back of the chair. A nurse rests gentle hands on her shoulders. The mother's eyes are wide with fear. She strains to look through me to her son. Momoh's been limp and lifeless since the nurse called out. Her English isn't sufficient to follow the resuscitation conversation. She knows but doesn't know. Hope always triumphs over reality.

I step back from the bed. I automatically remove my gloves as I turn. She recognizes this as proof her little boy is dead. She bravely tries not to cry but this isn't possible. She slumps back into the chair. The nurse embraces her and the sobbing tears flow and flow and flow.

A child like Momoh arrives every day. The children are loved and nurtured, well cared for. Beautiful children, the heart and soul of the next generation. There's no beauty in death. The little bodies are wrapped in a shroud and moved to a quiet room. Every morning when I come on duty, I walk by this room. If I see a body through the window, I superstitiously hope this death might spare my shift a shroud.

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**Lane Robson graduated from the first medical class at the University of Calgary in 1973. He was Head of Pediatric Nephrology and Head of Pediatrics at several Universities and a full professor at Brown University. He served as a volunteer pediatrician in Haiti, Nicaragua and Sierra Leone. He is the author of over six hundred medical articles in peer-reviewed journals. He also published articles on postal history, William Blake, and C.S. Lewis. He won the Geldert medal for philatelic writing in 2011. His book *How to Cure Bedwetting* helps parents cure bedwetting. His non-medical books include *Do You Think You Will Ever Go Back*, a collection of short stories that strives to understand human nature.**