

The Face-Off

Sometimes a strange medical dance takes place between experienced nurses and young doctors as they try to provide patients with optimal care.

BY RAY BINGHAM

OUR HEATED EXCHANGE STOPPED. We both fell silent; words had failed. Deni and I faced each other across the small table at the foot of the patient's bed, glowering. Deni's clinched fists rested on the table as he bent toward me. I put down my nursing flow sheet, laid my open hands on the table, and leaned forward, unwilling to back off an inch.

I'd never heard of a dispute between a doctor and a nurse in the newborn intensive care unit (NICU) coming to fistcuffs. However, it was 6 a.m., and Deni had been on duty since the previous morning. Although he had slept a few hours overnight, his eyes were bleary and bloodshot, and the tension in his face betrayed his anger and frustration. Meanwhile I, the object of his ire, was in the eleventh hour of my twelve-hour night shift. My eyes were scratchy, my will defiant, and my temper short.

Baby James slept peacefully on the bed beside us, unaware of the commotion he was causing.

Caring For Baby James

IT'S A GOOD THING THAT DENI AND I WERE FRIENDS. Deni, a large, muscular black man, was a neonatologist-in-training. He had come to our hospital from Nigeria and spoke his refined English with a heavy accent. I, white and taller than Deni and more slender, was a nurse with several years of NICU experience, and I had recently passed my board certification in neonatal care.

In an area as delicate as the NICU, recognizing strong physicians is a vital nursing skill, and Deni was one of the best. In his year on our unit, I had learned to appreciate his hard work, his intelligence, and his diligence. He often took the time to discuss plans of care, offer explanations, and ask and answer questions—valuable characteristics of the best physicians. In return, I believe that he appreciated my knowledge, acumen, and savvy as a nurse, going out of his way at times to request that I care for a sick infant he was worried about. In the quiet times, we of-

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ten sat and talked—about his life in Nigeria, or the vagaries of American culture, or our wives and families.

One thing I knew about Deni, however, was that he was stubborn, and if he thought he was right about something, he wouldn't listen to other points of view. The care of Baby James was one of the few times in our working relationship that we would so strongly disagree.

James was less than a day old. He had been born at twenty-seven weeks gestation, roughly three months premature. Too small and weak initially to breathe on his own, he was hooked to a mechanical ventilator. When I had come on for the night shift and first gotten the report on him—a good eleven hours before my confrontation with Deni—James's ventilator pressure setting (the force with which the machine was pushing air into his underdeveloped lungs) was perilously high. Right after birth, a premature infant like James often requires high pressure to open the airways, much like crying helps open the lungs of a term infant. But after the infant stabilizes, the first order of business is to start turning down the pressure, a process referred to as weaning.

At the start of my shift I had drawn a blood sample on James, taken from a special line inserted into the artery of his umbilical stump, for a blood gas test. This test measures the levels of oxygen, carbon dioxide, and acidity in the blood, providing the best measure of the effectiveness of the ventilator. The results of this blood gas were acceptable, so we weaned the ventilator pressure by one point.

Soon after the change, I noticed that James, who had been lying quietly, began to squirm on the bed. He scrunched his tiny face, looking agitated and uncomfortable, and took almost thirty minutes to settle back down. I marked the episode on my flow sheet.

An hour later, I drew another sample; on the basis of those results, we weaned the pressure another point. James squirmed some more, and his color paled. On his monitor, I saw that both his blood pressure and his oxygen saturation (a continuous measure of the oxygen level of his blood) started to waver. Again, he took about half an hour to return to sleep. I waited a little longer to draw a third blood gas sample. Once more we weaned; once more he reacted. I added his reactions to my notes.

By then, it was after ten at night. The attending physician, Dr. Moore, went on his final rounds with Deni and the resident, a young doctor named Lorraine. Dr. Moore recommended continuing the hourly weaning throughout the night. Deni readily agreed, and instructed Lorraine to follow James's blood gas values, decrease the pressure setting as indicated, and report any problems to him.

I spoke up with a word of caution. "We might be pushing him too hard," I said. "The changes have made James restless, and you can see that his oxygen saturations have declined during the past couple of hours. I think we need to move a little slower, to give him more time to recover."

However, the doctors felt that the weaning took precedence.

The Need For Individualized Attention

WHAT I COULDN'T SAY OUTRIGHT, but what had become an issue of concern among the NICU nursing staff, was that we believed during recent months the doctors were attempting to wean many infants too rapidly. In any health care setting, clinicians try to base their actions on the best available research and evidence. On the basis of then-recent findings, the doctors had instituted a new approach intended to hasten the weaning process, using an algorithm based mostly on the blood gas values. This was a time before certain medications came into routine use to address the respiratory problems of premature infants and before the sophisticated ventilators now common for neonatal care.

At first, all of the staff members were on board. Using a ventilator in the NICU involves a delicate balance—often a premature infant can't survive without one, but the pressure can damage the developing lungs, or even lead to a life-threatening emergency when a tear in the lung tissue causes a lung to collapse. Using the lowest possible ventilator pressures, while still allowing for good gas exchange, reduces the risks.

But premature infants also have few energy reserves, and if they begin to struggle with breathing, they quickly become exhausted. In addition, rapid changes of any kind for these infants can cause them stress, bringing on a physiologic “fight-or-flight” response that further depletes their reserves. Finding the proper level of ventilator support to assist a premature infant is exceedingly tricky.

Soon after implementing the new weaning approach, several of the nurses, myself included, had seen cases in which an infant had become exhausted from struggling to breathe with the declining ventilator support. When this happened, we were forced to compensate by rapidly raising the ventilator settings, often ending up on higher pressure than when we began. It appeared to us that the doctors had started paying too much attention to the lab values and too little to the babies' reactions. This “care by numbers” went against the individualized attention that premature infants require.

Over time, the nurses noted that infants tended to tolerate weaning better when they were given more time to adjust between changes. We tried to discuss our observations with the medical staff and advocate for a modified approach, but the rapid weaning continued.

A premature baby can't tell you if something is wrong; you have to be at the bedside and learn to closely watch for behavioral cues. The behaviors that I was seeing with James after the ventilator changes—restlessness, agitation, unstable vital signs—were a type of stress reaction. I worried that he would soon tire and begin to crash. Although we needed to continue the ventilator weaning, I wanted to better balance the rate of the changes with James' ability to tolerate them.

My attempt to speak a word of caution for James had failed, but I still knew a

few tricks of the trade.

Overnight the NICU would be in Deni's hands. Because the unit was fairly quiet, he would try to grab some sleep, leaving Lorraine, the resident, to monitor things and report any changes to him. A smart nurse can use a resident's insecurity to good advantage.

Lorraine, however, proved to be conscientious, and that would be a problem. Soon after rounds, she asked me to draw a blood gas on James. I stalled, saying I was in the middle of mixing medications. When I got the blood gas, rather than seeking her out with the results, I waited for her to come back around. Finally, a half-hour later, she reviewed the lab sheet, and we weaned another point. I hoped she would leave then to get some rest, but she was back before the hour. James remained agitated from the last change.

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So when I saw her heading for his bedside, I scooted out the side door for a well-timed bathroom break. By the time I got back, she was busy on the opposite side of the unit. That allowed an extra half-hour before the next blood gas and vent change. Lorraine finally left again, but she was back in an hour. Time for my dinner break. She came and found me in the lounge, and I assured her I would draw another blood gas soon—but I was able to buy James almost another hour.

Facing Off

THIS DANCE WENT ON THROUGH THE NIGHT, allowing me to slow the pace of the weaning. James had slept fairly well, and between changes he was reacting less severely, so we were making steady, if deliberate, progress. But I knew that once Deni woke and came to check on things himself, he wouldn't be happy.

He was more than unhappy; he was livid. “Where's Lorraine? What the hell has she been doing all night? We were supposed to have him weaned by at least three or four more points by now.”

Putting the blame for any shortcoming on a resident is a time-honored hospital practice. I had no desire to make Lorraine take the fall, however. She had only been trying to follow orders, and blaming her wouldn't address the underlying problem.

“It's not her fault,” I answered. “Once we got his initial pressure down, we needed to move slower. He wasn't tolerating the weaning very well, so I held off.”

“What? Look, you know the risks as long as he remains on the ventilator!”

“And you know that if he'd bottomed out, we'd had to go back up on the pressure and he'd be worse off.”

“That wasn't the plan!”

“I know, but I did what I thought was necessary. I was the one watching him.”

“And I’m the one who will have to answer to Dr. Moore.” My nursing shift would be over before the doctors’ morning rounds.

“If he’s pissed, he can call me at home,” I retorted. We’d reached an impasse. It was 6 a.m., and neither one of us was in the mood to listen openly or to argue cogently. Instead, we glowered.

Becky, the respiratory therapist, warily approached, carrying a slip of paper with the results from James’s latest blood gas. Deni started to reach for my lab slip. *How dare he*, I thought, and snatched it from Becky’s hand, almost tearing it in the process.

I quickly glanced over it. The results were the best of the night. I smiled. “See, we got him over the hump,” I said. “Now we can keep weaning, and he’s better able to handle it.” I handed the slip to Deni.

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“No, I told *you*, we should have been moving faster.” He asked Becky to lower the pressure by another point, and he also made a slight decrease on the breathing rate. Ordinarily, we would avoid making two such changes at the same time. I might have argued, but at this point I thought the combination was an appropriate move, too.

So, we parted, still on speaking terms. James squirmed a little, but his lungs sounded clear, and he soon settled down. I didn’t draw another blood gas until just before the arrival of the day shift, putting off any further changes until after morning rounds.

The Goal Of Treating Each Patient

IN MY CAREER AS A NICU NURSE, I RARELY DEFIED the directives of doctors. As a registered nurse, though, I am fully accountable for the care I provide. I wish that such tricks as I employed that night hadn’t been necessary and that my nursing input carried more weight in the decision-making process.

As the caregiver at the bedside, I have the responsibility to observe my patients closely and track not only their vital signs—the numbers and wave forms of heart rate, breathing, and blood pressure readouts flitting continuously across the monitor—and the numerical values of their laboratory tests, but also the subtle clues that I can gather from their movements; their posture; their facial expressions; their responses to light, touch, or noise; their ability to rest; and their tolerance for change. These nursing observations give me a more rounded impression of my patients, but they’re not always something that I can point to or verbalize. Call it intuition; it is often my best tool to tailor my care to the needs of each patient.

I don’t offer this story as a morality play—insensitive doctors were wrong, car-

ing nurse saves the day. Both doctors and nurses value learning and experience, as well as the scientific knowledge brought by education, training, and research. Each patient, however, has unique needs, which is what brings out the art of both medicine and nursing.

Although I understood the reasoning behind the rapid-weaning approach in general, my intuition raised concerns about its effects for James in particular. Working my dance was a difficult but well-considered decision. I knew that stalling could have resulted in harm to James, but I believed, on the basis of my experience and observations, that weaning too rapidly carried a far greater risk. I watch over all of my ventilated babies for any sign of problems; I might have watched James a little closer because I had stuck my neck out a little farther.

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During the next couple of days, James continued to improve, and soon he was weaned off of the ventilator for good. He went on to have a mostly stable and unremarkable NICU course and was discharged home to his parents at about the time of his original due date. That is the goal of our care for every premature infant.

In addition, soon afterward, the rapid-weaning approach would be curtailed because the unit’s statistics showed no improvement in outcomes, and we went back to evaluating each infant and each ventilator change on a case-by-case basis. No more “care by numbers.” Perhaps my confrontation with Deni contributed to push the change.

I was proud when I saw James “graduate” from our NICU and go home. There’s no way he will ever know that on his first day of life he had caused two grown men to face off, almost coming to blows over the optimal course of his care.

Given the outcome, I’d do it all again.