

Unprotected People #75 Pneumococcal Disease

Three-Year-Old's Ordeal with Severe Pneumococcal Disease Includes Bloodstream and Lung Infection

In 1996, four years before pneumococcal conjugate vaccine (PCV) was licensed in the United States, three-year-old Leo Wexler-Mann underwent two days of emergency room visits and a four-day hospital stay being treated for pneumococcal pneumonia, sepsis, and pleural effusions. On his return home, he faced weeks of illness and months of recovery. His parents, Deborah Wexler and Michael Mann, endured agonizing days watching their son struggle to breathe and anxious months monitoring his breathing quality. Fortunately, Leo made a complete recovery. Leo's mother, the executive director of IAC, wrote the following account out of a sense of relief and gratitude that today's infants, toddlers, and preschoolers do not have to experience the pain and distress Leo did, and that their parents are spared the anguish of watching their children struggle with pneumococcal disease and the fear that their child might die or develop significant, lifelong health problems as a result of the disease.

My Three-Year-Old Son's Experience with Severe Pneumococcal Disease

By Deborah L. Wexler, MD, ABFP

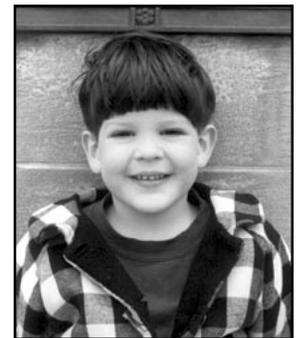
I am the mother of three children and also a board certified family physician and immunization specialist. What follows are my recollections of my now-12-year-old son's illness with invasive pneumococcal disease in March 1996. His disease included pneumococcal pneumonia (lung infection), sepsis (blood infection), and pleural effusion (inflammatory fluid in the lungs).

When Leo had just turned three, he developed what I thought was a mild viral illness—a cough and fever. The fever responded well to treatment with anti-fever medication. But by the third night of illness, as I was drying him off after his bath and starting to put his pajamas on him, he suddenly

turned gray and became completely limp. He was in some kind of shock. Terrified, I scooped him up, wrapped a blanket around him, and shouted for my husband that we had to go the hospital now. We ran to the car and sped to St. Paul Children's Hospital Emergency Room (ER), about two miles from our home.

Leo recovered a bit in the car, regaining some color. By the time he arrived at the hospital, his appearance was much improved. He was no longer gray but still had a fever. The emergency department staff evaluated him, took multiple tubes of blood from his little arm for various tests including blood cultures, and x-rayed him. Ultimately, they thought he was stable enough to return home after he received two injections of a potent antibiotic. We were given a prescription for an oral antibiotic that he was to begin taking the next evening. What we didn't know that night in the ER was that Leo was septic (had a serious blood infection) with invasive pneumococcal disease. His blood and lungs were infected with deadly bacteria.

Because of the antibiotic injection, the next morning Leo appeared better. But that evening when we tried to give him the oral antibiotic, even the smallest amount tasted so bad to him that try as we might, we couldn't get him to open his mouth for the full dose. We fought and struggled with him but to no avail. His breathing grew worse. We decided we'd better stop stressing him, called the physician on call, and explained the situation. He asked us to



(continued on next page)

bring Leo back to the hospital for another injection of the previous night's antibiotic. Poor little Leo.

The next day, the physician on call phoned to tell us the laboratory had reported that the blood cultures drawn the first night in the ER showed positive results—pneumococcal bacteria were growing in Leo's blood. She wanted to be sure he was being treated fully and doing well. We described our problems with the oral antibiotic failure. She recommended that he be switched to amoxicillin—easy to tolerate.

Leo was able to take this oral medication without difficulty. But as the hours passed, I noticed his breathing rate was gradually becoming more rapid. He was eventually breathing at the rate of 40-50 breaths per minute. (Normal breathing rate for his age is 20-30 breaths per minute.) I assumed his rapid breathing was caused by the pneumonia and would subside. When it didn't slow down by the next day, I called his physician. We agreed that Leo should come back to the hospital for further evaluation and x-rays.

Leo's new chest x-rays showed fluid had now settled in the bases of both of his lungs. He had pleural effusions on both sides. He was experiencing a severe inflammatory response in his lungs, and the accumulating fluid in his chest cavity was making it difficult for him to fully expand his lungs. This was the reason for his rapid breathing. Leo was admitted to the hospital, where an infectious disease specialist recommended treatment with stronger antibiotics.

In addition, because of his breathing difficulties a pediatric pulmonary specialist was consulted. My husband and I were agonized by the thought that if his breathing were to become too impaired, our three-year-old might have to have a needle inserted into his chest cavity to remove excess inflammatory fluid.

The consultants recommended we observe Leo's breathing rate for worsening signs and that he have daily chest x-rays. By doing these things, we would be able to determine if the fluid would need to be removed with a needle or if his body would absorb it on its own. We were fortunate

that Leo's breathing problems stabilized and that he did not need to experience the needle procedure (pleuracentesis).

After a four-day stay, Leo was discharged from the hospital on oral antibiotics, but the complications of his illness did not end there—and neither did his suffering. Following his necessary treatment with the multiple antibiotics, the normal bacterial growth in his intestine was altered dramatically. His intestine was overwhelmed with a new bacterium called *Clostridium difficile*. This caused Leo to cry with severe stomach cramps and to pass 20-30 painful bloody stools every day for several days.

We called his physician the day the severe abdominal pain and bloody diarrhea began. Leo's doctor recommended stopping the antibiotics for the pneumococcal disease and giving him a different antibiotic to combat the *Clostridium* infection. The medication was put in liquid form so Leo could swallow it, but it tasted so terrible that he gagged and couldn't swallow it. We called the physician again; he asked if our three-year-old could possibly swallow the medication in pill form. Leo said he'd try. Fortunately, he was able to swallow the pills, and over the next several days, the bloody diarrhea and cramping resolved.

Our family was overwhelmed by the severity of Leo's illness and its complications for nearly a month. Following his acute illness, there were additional visits during the year with the pediatric pulmonary specialist to make sure Leo's breathing returned to normal.

To this day, I am thankful that Leo's brain was not infected with the pneumococcal organism and that he is a healthy child. I wish the pneumococcal vaccine for children had been available nine years ago. It would have saved Leo from six days in and out of the hospital, weeks of illness, months of recovery, and saved me and my husband from months of worry as we monitored his breathing quality and hoped for his full recovery.

(page 2 of 3)

Thousands of other families have endured similar ordeals when their children were infected with pneumococcal bacteria. Many parents have watched their children suffer the ravages of pneumococcal meningitis (an even worse form of pneumococcal disease); some have watched their children die. Our family was extremely fortunate, all things considered.

As a physician, public health educator, and mother, I never hesitate to urge parents of young children to vaccinate their children against pneumococcal disease. I've been much too close to the pain and suffering this disease can cause a child and a family.