



Jamel's sister, Davida, visits him in the hospital as he recovers from surgery to remove an abscess caused by MRSA.

FIGHTING MRSA: THE STORY OF JAMEL SAWYER

Jamel Sawyer is one of a growing number of Americans to suffer from a deadly infection called MRSA (methicillin-resistant *Staphylococcus aureus*). One of the most notorious multidrug-resistant superbugs, MRSA is responsible for an estimated 19,000 deaths¹ and 360,000 hospitalizations² each year in this country. Fortunately, Jamel survived the infection, but the disease left him paralyzed below the waist.

Jamel's story illustrates the twin dangers presented by emerging multidrug-resistant bacterial infections and the waning effectiveness and availability of drugs to treat them.

Doctors tried multiple antibiotics to get Jamel's infection under control. None worked.

At Stamford High School in southern Connecticut, Jamel was known as much for his smile as for his commitment on the football field. After graduating in 2008, Jamel went on to study business at Mount Ida College near Boston, where he also played tailback for the Mustangs.

In November 2010, Jamel started experiencing unusual back pain, which soon worsened and spread up to his neck and down to his legs. Jamel went to the doctor, and was prescribed pain medication and instructed to relax. Soon after, his legs grew numb, and Jamel could no longer stand. His doctor attributed that to the pain medication, but when the numbness moved up to his chest and his temperature skyrocketed to 106 degrees, he was rushed to the

hospital. A magnetic resonance imaging scan revealed an abscess around his spinal cord, and he went into surgery that night.

Two days later, Jamel awoke to the news: his pain and paralysis had been the result of an MRSA infection.

Paralyzed from the waist down, Jamel stayed in the intensive care unit for several weeks while doctors tried multiple antibiotics—including some last-resort drugs—to get his infection under control. None worked.

As Jamel's doctors knew, MRSA was resistant to traditional first-line-of-defense antibiotics,³ but even new drugs approved to fight MRSA-related infections were becoming ineffective.⁴

The infection finally subsided in mid-January, although it is unclear

whether that was a result of antibiotics or Jamel's own immune system.

Whatever the reason, he was back at home with his sister, Davida Lara, by the end of the month.

While Jamel enjoyed the love and support of friends and neighbors, the ordeal still put a significant financial burden on him and his family. By one

study's estimates, an MRSA infection can extend a hospital stay by 23 days and increase costs by \$61,000.⁵

Today, Jamel is happy, healthy and working hard to obtain a business degree, to regain control of his legs and to share his story so that others can understand the dangers of antibiotic-resistant infections and the importance of mustering our resources to fight them.

Learn more and get involved at
WWW.PEWHEALTH.ORG/ANTIBIOTICS.

The Pew Health Group's Antibiotics and Innovation Project addresses the growing public health challenge of multidrug-resistant infections by supporting policies that stimulate and encourage the development of antibiotics to treat life-threatening illnesses.

¹ R. M. Klevens, M. A. Morrison, et al., "Invasive Methicillin-Resistant *Staphylococcus Aureus* Infections in the United States," *JAMA* 298, no. 15 (2007): 1763–71.

² AHRQ, "Infections with Methicillin-Resistant *Staphylococcus Aureus* (MRSA) in U.S. Hospitals, 1993–2005," Center for Delivery Organization, and Markets, Healthcare Costs and Utilization Project, Nationwide Inpatient Sample, 1993–2005.

³ K. Chua, F. Laurent, et al., "Antimicrobial Resistance: Not Community-Associated Methicillin-Resistant *Staphylococcus Aureus* (CA-MRSA)! A Clinician's Guide to Community MRSA—Its Evolving Antimicrobial Resistance and Implications for Therapy," *Clinical Infectious Diseases* 52 no. 1 (2011): 99–114.

⁴ C. Liu, A. Bayer, et al., "Clinical Practice Guidelines by the Infectious Diseases Society of America for the Treatment of Methicillin-Resistant *Staphylococcus Aureus* Infections in Adults and Children," *Clinical Infectious Diseases* 52 no. 3 (2011): e18–55.

L. L. Han, L. K. McDougal, et al., "High Frequencies of Clindamycin and Tetracycline Resistance in Methicillin-Resistant *Staphylococcus*

Aureus Pulsed-Field Type USA300 Isolates Collected at a Boston Ambulatory Health Center," *Journal of Clinical Microbiology* 45 no. 4 (2007): 1350–52.

R. E. Mendes, H. S. Sader, et al., "Characterization of Baseline Methicillin-Resistant *Staphylococcus Aureus* Isolates Recovered from Phase IV Clinical Trial for Linezolid," *Journal of Clinical Microbiology* 48 no. 2 (2010): 568–74.

A. Mangili, I. Bica, et al. "Daptomycin-Resistant, Methicillin-Resistant *Staphylococcus Aureus* Bacteremia," *Clinical Infectious Diseases* 40 no. 7 (2005): 1058–60.

P. Wilson, J. A. Andrews, et al., "Linezolid Resistance in Clinical Isolates of *Staphylococcus Aureus*," *Journal of Antimicrobial Chemotherapy* 51 no. 1 (2003): 186–88.

⁵ D. J. Anderson, K. S. Kaye, L. F. Chen, K. E. Schmader, Y. Choi, et al., "2009 Clinical and Financial Outcomes Due to Methicillin-Resistant *Staphylococcus Aureus* Surgical Site Infection: A Multi-Center Matched Outcomes Study," *PLoS ONE* 4 no. 12: e8305. doi:10.1371/journal.pone.0008305.