

## Book Review

# Faces of Antimicrobial Resistance

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Antimicrobial resistance is becoming a major problem all around the world. The cost to health systems and economies can be very high. As humans we often realize the significance of and relate to a problem at a more personal and emotional level when we listen to stories about persons or individuals suffering from the problem. I have a personal connection with antimicrobial resistance (AMR) as my father had suffered from an infection which was resistant to most antimicrobials. In today's world more and more individuals might be having a similar experience. To provide a 'face' to the problem of AMR and highlight the personal suffering it causes, the Infectious Diseases Society of America (IDSA) has published a brief report titled 'Faces of antimicrobial resistance'. Through the stories of thirteen individuals from the United States (US), the report highlights the very real human and social consequences of AMR.

The first story is of a two and a half year old boy who developed an ear infection caused by methicillin resistant staph aureus (MRSA). The boy was treated with vancomycin, a reserve antibiotic and was eventually cured but his parent's confusion and fear is well captured in the short vignette. The second story of a teacher, Peggy who contracted a

massive infection with *Clostridium difficile* has a sad ending and the teacher died in the ICU of cardiac arrest. The third vignette is of a pharmacy student, Timothy Mok who developed an abdominal abscess caused by extended spectrum beta lactamase (ESBL) positive *E. coli*. The story has a happy ending and Timothy was able to go back home. The case of Meredith Little John from St. Louis, Missouri makes for poignant reading. Meredith was treated for acute myeloid leukemia when in high school and contracted various antibiotic resistant infections leading to her death a year after her AML diagnosis.

Tatiana from California contracted a MRSA infection a few weeks after her wedding and though she was treated and eventually recovered, like many other individuals mentioned she is not sure from where she had contracted the resistant organism. Brianna Strand was born with cystic fibrosis and suffered from frequent lung infections. She developed a lung infection with the organism *Mycobacterium abscessus* and has to remain on a regimen of multiple antibiotics to keep infections under control. The diagram titled 'Development of antimicrobial resistance' provides an overview of important events related to antimicrobials from 1943 to the present day. Catherine Duff highlights

important issues leading to AMR in her story and mentions fecal microbiota transplant as a treatment for superinfection caused by *C. difficile*. Antibiotics are increasingly present in our food and water supplies further contributing to resistance. Mary Millard underwent surgery for an aortic aneurysm and the organism *P. aeruginosa* attached itself to the artificial parts inserted into her body during the surgery. She is on treatment with ciprofloxacin, the only sensitive antibiotic and the increasing doses of the drug are causing significant adverse effects .

Natalie developed chronic infections with MRSA and skin reactions to different antibiotics used for treatment. The mother of a little boy, who developed a serious infection with MRSA and died in less than 24 hours, mentions how resistant organisms are taking us back in time to the era before antibiotics when infectious disease regularly killed people. Tenzin from Madison, Wisconsin developed a multidrug resistant (MDR) TB infection. MDR-TB is difficult to treat and it took 28 months and over 8000 pills for Tenzin to officially complete the treatment and he still feels stigmatized by his experience. The last vignette is of Roger who developed *Pseudomonas* infection following surgery for lung cancer. He was infected with an extremely drug resistant strain of the organism and required prolonged treatment.

The book has a foreword from Dr William Powderly, the President of the Infectious Disease Society of America. Black and white and sepia toned photographs of the individuals featured add to the personal connection which readers feel with the persons highlighted. High production values are characteristic of this well designed report. The cover page depicts a collage of a human face created using various microorganisms.

All those interested in the pressing problem of AMR will find this book to be of interest.

#### **AUTHOR'S CONTRIBUTION**

**PRS-** was involved in reading the book, writing the review and revising it for critical content.

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#### **ABOUT THE BOOK:**

Infectious Disease Society of America: Faces of antimicrobial resistance. 1300 Wilson Boulevard, Suite 300 Arlington, VA 22209. Can be downloaded for free from [http://www.idsociety.org/uploadedFiles/IDS\\_A/FOAR/FOAR%20Report%201-up%20final.pdf](http://www.idsociety.org/uploadedFiles/IDS_A/FOAR/FOAR%20Report%201-up%20final.pdf)

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