Superbugs and You: Russell McGowan tells his story

Superbugs and You is a podcast series that tells true stories from scientists and patients around the world. The podcast series focuses on exploring the threat of antimicrobial resistance, which occurs when bacteria, viruses, fungi and parasites change over time and no longer respond to antibiotics and other medicines. In other words, they become superbugs. In the podcast, we have discussions with patients, physicians and scientists to find out what's causing antimicrobial resistance, how it affects the lives of ordinary people, and, most importantly, what can we do to stop it? The series is co-created by the Center for Infectious Disease Research and Policy at the University of Minnesota and the Antimicrobial Resistance Fighter Coalition. In Season 2, we had an episode on "Silent superheroes – antibiotics in the fight against cancer". We highlight excerpts from the episode below.

Excerpts from the podcast:

My name is Russell McGowan, and I live in Canberra, Australia. I'm a longstanding bone marrow cancer survivor. My story is one of a medical miracle combined with bouts of iatrogenesis, so harm that's occurred to me as a result of my treatment. But I've learned some lessons from this, and that's what I want to pass on.

I was a healthy male in my early 40s when I was diagnosed with my myelofibrosis, a bone marrow cancer. I was married and the father of three young daughters at the time, and I had unexplained anemia that was affecting my ability to run. So I got checked out and after 6 to 12 months, I got a diagnosis of the myelofibrosis. The proposed solution was a bone marrow transplant, which was fairly heavy duty stuff for somebody who hadn't interacted with the health system particularly up until that time. I had to move out of my state for my bone marrow transplant, so it was quite a complex and delayed procedure and during the delay they decided to take my spleen out.

I had drugs such as cyclosporin which suppressed the immune system for some time. I had intravenous infraglobulin which boosted my immune system, and antibiotics, initially Bactrim, but I had sensitivity to that and had to revert to the components of that antibiotic, which was Dapsone and trimethoprim.

I was doing pretty well and gradually came off those medications only to be hit suddenly with a fulminant sepsis episode out of nowhere. I was taken by ambulance to our local emergency department, where I went into a coma. During that time, I was treated with various frontline intravenous antibiotics but they were unsuccessful. After I had been in the coma for three days, they managed to get a culture of the causitive agent which was *Streptococcus pneumonia*. This was surprising because they assumed that my vaccination against pneumococcus before my transplant would have stood me in good stead against that particular bacteria. I had the pneumococcal vaccination after my splenectomy, but unfortunately I didn't have it again after the bone marrow transplant. It was a relatively common bacteria, which they hadn't expected, and had not responded to the initial antibiotics. Once penicillin was started, I eventually came out of the coma, left the intensive care unit after 10 days, and recovered over a couple of months in the hospital.

Concluding remarks from interview:

This is an example of why it's so important to preserve the efficacy of the antibiotics we do have, because they were critical to Russell's recovery. Russell has continued his commitment to improved patient care by becoming a consumer advocate for health care. Health literacy is critical and he shares both his experiences and learnings with others.

Antibiotics played a key part in Russell's recovery. It wasn't "all plain sailing", but from Russell's perspective, he learned that even with the best of intentions, practitioners in the health-care system do not always get it right. Therefore, health literacy by people receiving treatment can help guard against adverse events. This is a perspective he wanted to bring into this discussion of superbugs and antimicrobial resistance – the importance of using antibiotics correctly and deploying stewardship programmes to maintain the effectiveness of antibiotics. ■

To hear Russell's full story and hear from front-line clinicians and researchers driving policy at a national level, visit https://antimicrobialresistancefighters.org/podcasts?season=12781.