Life behind the knife

An interview with Dr Rob Leeper

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INTRODUCTION

Dr. Rob Leeper is an Assistant Professor of Surgery at Western University. After completing his training in surgery, critical care, and trauma in Baltimore, Maryland, he returned to London to join the staff at London Health Sciences Centre (LHSC) and the Department of Surgery in 2015. We sat down with him to discuss his work as a trauma surgeon, as well as what it is like for him to live life behind the knife.

UWOMJ: Can you tell us about your educational background and medical training?

Dr Rob Leeper: I grew up in London, right around the corner from where I live now. I remember the last time I was interviewed for anything was for my high school's newspaper in grade thirteen. The quote from me was, "I'm going to go to Queens to play football and then come back to do medicine," which is exactly what I did. I then stayed here at Western for a residency in general surgery, and my first fellowship in critical care. After that, I went away for two years to Johns Hopkins University in Baltimore to do a fellowship in trauma surgery. This was an amazing experience as Johns Hopkins is really a place where 125 years of surgical tradition and excellence clash head-on with modern American poverty and gun violence. It's an unfortunate situation but a great place to learn to be a trauma surgeon.

When and why were you drawn to trauma surgery?

It may sound corny, but it started with a TV show from the '90s called ER. When I came to medical school, my mind was set on becoming an emergency doctor so I spent pre-clerkship hanging out with ER doctors and ended up loving it. But I can remember the one seminal case that started to change my mind. This guy came in stabbed to pieces and the emergency doctors resuscitated him and got lines in until the thoracic surgery resident stormed in, took control, and went away with the guy upstairs to do a thoracotomy. In the ER, we were left with empty bags of blood and bandages on the floor. At that moment I thought, "wow that was cool... but I want to be that guy," and trauma surgery was the best way to kind of be an emergency doctor, but with a knife.

Can you describe how you balance your roles as a clinician, educator, and researcher?

It's very challenging. If you talk to anybody in academic medicine they will all tell you that the clinical work is a breeze, it's what you're trained for, it's what you love to do, and it's the reason you got into this job in the first place. Taking out ugly gallbladders, doing an ED thoracotomy, taking care of a septic patient is my joy in life, it's what I escape to, it's what's so easy to pour yourself into

when you ought to be doing research and educational work. The trick is to have really good carrots and a really good stick. For me the carrot is simulation. All of my educational endeavors are designed towards a high-fidelity simulation which I truly enjoy doing. As for the research, it's all about a good stick. I have my contract taped to the back of my door so everyday it reminds me to ask myself how far behind I am, and what I need to do to catch up. It's a matter of knowing what the consequences are and making yourself meet the marks. And believe me, it's not easy but it's worth it.

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Why the academic route?

My area of interest, trauma and critical care, is by its nature predicated on occurring in an academic institution. For example, you can't do a high-fidelity simulation master's degree and try to think about ways to change the way people learn to care for highly injured trauma patients, and not be in a big academic center. The same is true of my colleagues in areas like neurosurgery, cardiac surgery, or interventional cardiology. Maybe in the US there are truly private clinical-driven centers, but in Canada if you want to do these kinds of jobs you sort of owe it to your community and to your trainees to give back academically.

Is LHSC ready for a disaster situation/mass casualty incident? What protocols are in place at LHSC and what training do you have to deal with this?

Nobody is ready, but everyone is prepared. Our new chairman of surgery, Dr. Emil Schemitsch, has been one of the most proactive people that I've come across. He's convened a disaster preparedness committee that I'm a part of along with many of our ER doctors and surgeons. Our major focus has been developing protocols to use in a pre-hospital setting for deciding how to distribute casualties to the different area hospitals appropriately. On the surgical side, we've been working on making a list of all of the items we predict we will need and predicting which items will be our rate limiting reagent in the equation. There is even talk of getting a big storage center or

warehouse for the province where we would stockpile equipment. This is important because if a bomb goes off, or a tornado touches down, and we have a hundred people with extremity amputations, then we need a huge number of external fixators for the orthopedic surgeons, and they simply don't exist yet. There are also a number of organized courses that have been in place for a while. For example, the American college of Surgeons has a Disaster Management and Emergency Preparedness (DMEP) course that I've taken. So, we are doing the best that we can, but are we every truly ready? No way.

Does your expertise in gunshot injuries go to waste at LHSC where gun violence is rare?

It's absolutely a funny way to train – go and do something for two years straight that you'll rarely do again. How does that make any sense? Well, the first reason is that it occasionally pays off to have somebody in your hospital who is an expert at the care of penetrating trauma. For example, this last August we had a patient who had been shot in the chest and went into cardiac arrest. He survived because he was lucky that I was on call that day and was down in the trauma bay when he arrived. There are only a handful of people in the city with tremendous experience doing ED thoracotomies. It's one of the many lucky hints that lined up for that guy to survive. The other part of it is the transferability of skills. For example, if you can get around the aorta in a hurry, or control an IVC injury just below the renals, or dissect a carotid that's been shot through and put it back together again, well then there's not much else you can't do. A ton of what I do in my elective general surgery practice, and most importantly in my acute care general surgery practice, I learned from the trauma world.

What are your bread-and-butter cases?

Hernias, gallbladders, bowel obstructions, and appendectomies keep my skills sharp and my hands ready for the surprises that walk through the door. I get to do a couple of zany cases a month that really test me. Whereas with my colleagues in areas like cardiac surgery, I'm sure their elective cases test them every single day whether they're fighting some terrible aorta or difficult to repair valve. I like that I have a very nice, calm pace with a lot of preparation and thought, and then every so often a punctuation point with total panic, and then back to calm.

How do you deal with panic in the OR?

It's the most fun that I ever have with my clothes on. My wife laughs at me when I say that, but it's true! The adrenaline rush is what I absolutely live for and if you don't then you wouldn't be a trauma surgeon. There is no other time where I'm more excited or happy than when someone has a really terrible problem that needs to be fixed. I think where others might back away from that, I run towards it. It's my most favourite time to be in the operating room.

How do you deal with bad outcomes in the OR?

If I'm in the operating room for an elective procedure like a hernia repair and something goes wrong, the stress is terrible, I hate

it. But when you're operating for an exploded colon or a gunshot to the belly, then you're the closing pitcher coming into a 9-1 game. That's the beauty of trauma surgery, you are walking in and the die is already cast. Anything you do is better because the patient is already dying. Trauma and emergency cases are the least stressful cases I do.

Does family life ever suffer because of your work?

Yes, absolutely without a doubt. I have the most long-suffering saint of a wife and she'll tell you! My biggest stresses in life are feeling that I'm not giving enough time to my wife and three kids, or to my research. And there's no good answer, you just sort of let things get as hot as they can and when they're on fire you put them out!

Is there anything else you wanted to talk about?

What I think most people don't understand about injuries is the social justice side of it. It's the marginalized populations in society that fall victim to trauma. I think that's an important concept to highlight. Trauma is not just for people who fit the alpha-dog, jock archetype, it's also a role for people like my colleague at Johns Hopkins, Adil Haider. He's a trauma surgeon who has dedicated all his academic pursuits to understanding trauma care disparities. He tries to find out why African Americans, Hispanics, and the LGBT community have worse outcomes on average than white, non-LGBT Americans in trauma centers, and how to remedy the issues. In Canada, the greatest disparities in trauma are seen in the Native community. So, trauma has that element to it which I think is topical and important today especially after last month's presidential election across the border. Working in trauma means giving back to people whom society has, in some way or another, done wrong.