



Making a heartfelt

difference

DR TRENTON OLIVER

Rural Individual Fellowship Award

University of Kwa-Zulu Natal

Rate of non-adherence to antihypertensive medicine in stable hypertensive patients

First-year Internal Medicine registrar, Dr Trenton Oliver, has some very personal reasons for having gone into medicine and research. Busy with his specialist training rotation through several Durban academic hospitals, he lost his policeman father in an on-duty car crash as a one-year-old child. Then just four years ago, his grandmother, who he lived with during his high-school years in Durban, was diagnosed with metastatic breast cancer.

Strangely, on 14 January this year, he remembered his father while treating a man admitted to the RK Khan Hospital suffering from a massive brain bleed sustained in a car crash, exactly 26 years to the day after his dad died – of the same cause, at the same hospital. “I thought, this is also someone’s father,” he says, adding that while growing up he often considered becoming a neurosurgeon as a direct consequence of his childhood loss, but soon realised that, “cutting and surgery are not for me.”

Trenton wants to be a specialist physician within three years and then super-specialise in medical oncology. “I grew up in Queensburgh in Durban and attended

Pinetown Boys High. I lived with my gran for my high-school years. We grew very close,” he adds. “If I can better care for cancer patients and maybe prolong life that would be great. I don’t expect to find the cure for cancer, but I’ve developed a huge love for research that can improve people’s quality of life.”

Trenton developed his social and empathic skills by doing a large variety of vacation jobs while studying for his MBChB and living in residence on the UKZN medical campus. He had secured a medical school bursary with his matric marks and continued his academic achievements on campus.

Simmering love for research

Trenton's love for research began simmering strongly after he successfully applied for a Discovery Foundation Award to conduct a retrospective study of 170 stable hypertensive patients at the Prince Mshiyeni Memorial Hospital hypertensive clinic in Umlazi. With his data collected, he wants to uncover the rate of non-adherence to anti-hypertensive medication in his cohort of patients, correlating this with age, gender and the number of medicines prescribed. His research has the potential to introduce widespread, targeted preventive interventions that could save many lives.

Trenton outlines some of the consequences of poorly controlled hypertension as strokes, vascular disease, gangrene of the feet and hands leading to potential amputation and permanent disability, and irreversible renal failure requiring ongoing dialysis, or a kidney transplant. "High blood pressure affects even your basic senses, your ability to walk or even see. And that's just the morbidity," he adds.

He says many people do not understand the difference between compliance and adherence, the former involving the timing, dosage and frequency of taking prescribed medicines, and the latter being the act of refilling a prescription on time. "I want to further this study. If you really want to address compliance, you have to do a qualitative study. Take a smaller group of a dozen or so chronic hypertensive patients and interview them, do home visits and do recorded interviews," he adds passionately.

He says factors affecting medicine adherence and compliance include patients' age (the elderly and the very young being most vulnerable for obvious

reasons), co-morbidities and "even simple things like the doctor-patient relationship and poor counselling. "Language is a huge daily barrier that too many healthcare providers face," he says citing Prince Mshiyeni's drainage area (Umlazi) as being 99% Zulu-speaking.

SA a world-leader in 50-plus hypertension

He says data shows that South Africa has the highest reported rate of hypertension among the 50-plus age group globally. "We need better counselling and communication to improve adherence, more social workers and more translators. Just the record taking itself is fraught and involves taking a travel history (for malaria testing for example), and what immunisations or vaccines or any other prophylaxis they have had. Many of our patients would rather see a traditional healer before taking prophylactics for travel," he reveals.

He says that for children and the elderly, support services are crucial, especially for those with diabetes.

"The simplest thing like having a social or healthcare worker explain the importance of their daily insulin shots can save a life," he adds. "Purely as a doctor, how can I make a difference seeing 500 patients a week? I mean, if we just had a better transportation system, you'd see an immediate drop in mortality and morbidity," he observes.

When his mind is not on his patients, Trenton is a surfer-lad who enjoys cooking, high-detail sketching (his art teacher was bitterly disappointed he did not study art) and spending time with his girlfriend who is also a medical doctor. "I would love for my study paper to be actioned while I take my research further," he concludes.



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Awareness-boosting plans

Trenton is hoping to improve awareness of the dangers of uncontrolled chronic hypertension by persuading the Prince Mshiyeni Memorial Hospital to print and distribute catchy illustrated pamphlets, tailored to his specific local findings. He also hopes to place posters around the community and to start a multi-media messaging system, reminding patients of appointments and carrying preventive-behaviour messaging.