

The humanity of it all: Exposing love, life, work and stupidity

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What an honour it is to have been asked to deliver the 4th Saint Lecture, named after Professor Charles F M Saint, a visionary surgeon whose stature in the South African surgical community is legendary. A brief glance at previous Saint lecturers (2007, Professor Bernard Ribeiro; 2009, Professor L D Britt; 2011, Professor Ara Darzi) immediately gives one a sense of purpose to advance an issue of importance to surgeons.

With that spirit of adventure, it is my intention to challenge your thinking and attempt to garner your collective efforts away from treatment to a more holistic preventive approach.

Preventing trauma

Let me be bold and immediately suggest that the only cure for trauma is its prevention. Given that the majority of trauma deaths occur at the scene of the injury, it only makes sense to focus on its

prevention. The challenge is that surgeons are trained very well to treat trauma, and the concept of becoming involved in trauma prevention is foreign to most surgeons and in a way frightening to them.

The reason is simple: the skills required to advocate for change are not taught in our medical schools or our postgraduate surgical training programmes. There are few role models to follow, and quite simply it is easier to sit back, wait for traumatised patients to come to us, and work within the safe confines of our operating theaters and intensive care units. Trauma prevention requires us to leave the safe confines of our institutions.

Before we go any further, a definition is in order. Trauma refers to any injury or injuries that threaten life or limb. South Africa has an alarming rate of injury, both intentional and unintentional, one of the highest in the world. According to the World Health Organization, 5.8 million people die each year worldwide as a result of injuries; they account for 10% of the world's deaths, and 32% more deaths than from malaria, tuberculosis and HIV/AIDS combined.

Road traffic injuries are a major public health problem. Road traffic crashes kill 1.2 million people a year, or an average of 3 242 people a day, worldwide. They disable or injure between 20 million and 50 million people annually.

The science of injury control has advanced in the past 30 years. Countries that have risen to the challenge of injury reduction have reaped the benefits (Table 1 lists proven lifesavers in trauma prevention and care). In Sweden, for example, there are

about 270 motor vehicle deaths per year – just 2.9 for every 100 000 population, compared with the world average of 20.8 for every 100 000. South Africa's rate is 33.2 per 100 000. What is even more impressive about the Scandinavian country's automobile fatality rate, however, is that in 1997 the national government developed the most ambitious road safety strategy in the world, which aims to see traffic deaths and debilitating injuries in Sweden completely eliminated by the year 2050.

Broadening our approach

Yet in spite of this progress, our current view of injury prevention remains shallow, narrow and unfocused. We may need to re-examine our approach to injury control to include a more holistic approach that is essentially based on the social determinants of health. Injuries do not happen in isolation. Like the layers of an onion, trauma is a combination of interplay between various pathophysiological pathways, constitutional factors, individual risk factors and choices, social relationships, living conditions, neighbourhoods and communities, institutions, and finally social and economic policies that contribute to injury causation.

From the moment we are conceived, and especially up to the age of 18 months, our nurturing impacts on us for the rest of our lives. We can choose to invest time and resources when the infant's brain is most malleable, or by default continue to spend too late and at a greater cost in social services, welfare, judicial systems and healthcare expenditures. Without a

Table 1. Proven lifesavers in trauma prevention and care

- Three-point seatbelts, child restraints
- Air bags, antilock brakes, electronic stability control
- Crumple zones in vehicles, roll-over protection on tractors
- Road design
- Building codes and standards
- Sustained comprehensive traffic enforcement
- Smoke and carbon monoxide detectors with audible alarms
- Helmets in sports, breakaway bases
- Occupational health and safety laws
- Gun control
- Medication packaging
- Flame-retardant pyjamas
- Acute care improvements – pre-hospital, emergency departments, operating rooms, intensive care units and trauma wards
- Advances in injury rehabilitation

Table 2. Modules in the Royal College of Physicians and Surgeons of Canada injury control course

- Overview of the injury problem
- Injuries in your region
- Successful programmes
- Small groups – building trust and relationships
- Injury surveillance
- High-risk groups
- Communication skills
- Small groups – identifying barriers
- Education solutions
- Enforcement solutions
- Engineering solutions
- Small groups – setting milestones
- Pre-hospital care – first aid, first responders, emergency health services, rescue
- Acute care – emergency departments, operating rooms, intensive care units
- Rehabilitation
- Developing an injury control strategy – I
- Developing community capacity
- Role of injury survivors
- Finalising an injury control strategy – II
- Wrap-up panel

doubt, our chances of achieving better health are directly linked to strengthening of the social determinants of health: genetics, gender, housing, education (literacy), income and social status, personal health practices, resilience, nutrition, employment conditions, physical environment, culture, child development, spirituality and strong social support networks.

Our inability to acknowledge the importance of ‘love’ and ‘happiness’ in our lives makes the required new thinking of injuries difficult for the majority of leaders in injury prevention. The current desire for instant versus delayed gratification in our society directly leads to the need for an expensive, ineffective healthcare system. The very actions that give us *instant gratification* also give rise to disease and injury. *Fatty foods* give rise to obesity, diabetes, heart disease and injury. *Drug use* gives rise to overdoses, addictions, mental illness, crime and injuries. *Alcohol use* gives rise to cirrhosis, mental illness, violence, injuries and crime. *Inactivity* gives rise to obesity, poor health and disability. *Salt use* gives rise to hypertension and cardiovascular problems. *Sex* gives rise to sexually transmitted diseases, unwanted pregnancies, fetal alcohol syndrome and sexual assaults. *Smoking* gives rise to cancer, chronic obstructive pulmonary disease, bronchitis and injuries.

It is estimated that 50% of all deaths in developed countries are preventable. For those under the age of 44, injury is the leading cause of death. For those under the age of 34, motor vehicle-related injuries are the leading cause of death. And finally, injuries kill more 1 - 19-year-olds than all other diseases combined.

To address the epidemic of injuries around the world, the Royal College of Physicians and Surgeons of Canada has developed an intensive hands-on 5-day injury control course. This newly designed 20-module course was recently inaugurated in the Sultanate of Oman. The course outline is shown in Table 2.

Let us broaden our approach to injury control by boldly linking our discussions to include ‘love’, ‘happiness’, ‘instant versus delayed gratification’ and the ‘social determinants of health’ as we search for solutions to this seemingly elusive problem – injuries.

The surgeons of South Africa can lead the way if they believe that the cure for trauma is its prevention. They can organise a forum to start the discussion and provide the momentum to engage South Africans in the discussion. Or they can sit by and simply continue to treat those injured as a result of trauma – but remember that the majority of those who die from trauma never make it to your operating room.

The only cure for their trauma was prevention.

Are you up for the challenge?

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