

FEATURE



Apothecary, c1906, Adler Museum of Medicine, Johannesburg Academic Hospital, South Africa

MEDICINE, MEDICAL AND MILITARY HISTORY TOUR OF SOUTH AFRICA

In January I had the pleasure of leading 20 medical and allied health colleagues on a tour of South Africa. The aim was to combine an exciting African holiday with opportunities to learn about the challenges of medical care in a rapidly changing country, and to visit major hospitals, medical and military museums, and Anglo-Zulu War and Boer War battlefields.

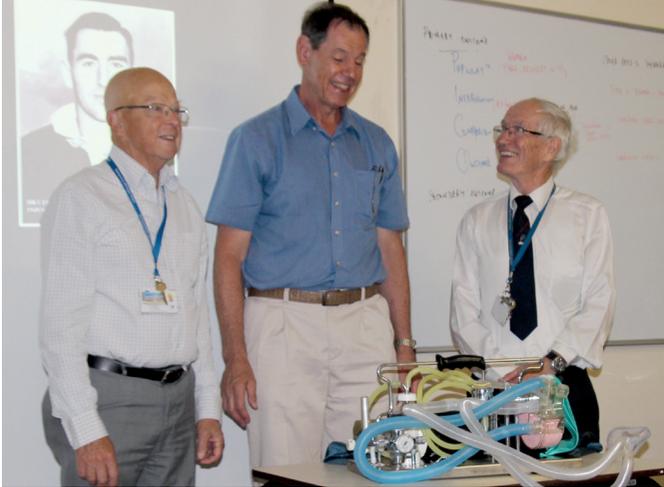
Baragwanath Hospital in Soweto began as an Allied military hospital in 1942, and now serves an estimated three million people. It is said to be the third largest in the world; 3,200 beds, 6,800 staff, 150,000 inpatients/year, 350 emergencies/day, 160 gunshots/month. The modern, well-equipped adult and paediatric burns units have highly competent staff, with impressive standards of care. Electrical

burns are common, incurred while stealing copper electrical cables. Many of the children we saw had extensive burns from kerosene, used for cooking and lighting. Necklacing (a tyre filled with rags and petrol forced down around a victim's chest and arms, then set alight) still occurs, although less frequently than during 'the struggle' to bring down apartheid. Necklacing and kerosene both cause extensive surface burns, as well as inhalational airway burns from aspiration of super-heated gas and flames. Former South African anaesthetists will remember these well!

There are separate medical, paediatric and surgical emergency departments. The 'surgical pit' and resuscitation unit are manned not by emergency medicine physicians but by surgeons, providing

continuity of care from admission to triage, resuscitation, and surgery. The 15-bed resuscitation unit handles over 5,000 resuscitations/year, and performed 5,000 x-rays/year within the unit – until told they could not operate their x-ray machine.

Johannesburg Academic Hospital's Adler Museum of Medicine houses a treasure trove of medical equipment, an early 1900s apothecary and a dental suite, and displays of traditional African medical practitioners, or witchdoctors. The sangoma reads the neck bones of a chicken or perhaps the entrails of a goat, sees the future, and casts spells for good or evil. He or she can send a tokoloshe, a small spirit being, to deliver harm. The inyanga dispenses medicines for all ails, some benign, some beneficial, some lethal; 'Spirits of Life', caustic soda,



Far left: Presentation of Komesaroff Resuscitator; Prof Mike James, Dr Paul Luckin and Prof Peter Gordon

Left: Presentation of the ASA Medallion to Prof Peter Gordon by Dr Paul Luckin

causes oesophageal burns, stricture, and usually death. It is not unusual to see a witchdoctor within the wards; traditional and modern co-exist.

On the battlefield at Isandlwhana we found where Surgeon Major Peter Shepherd fell in 1879, when the British Army was defeated by a Zulu army. Peter Shepherd took the Prussian surgeon von Esmarch's principles of battlefield medical aid, included medical emergencies, and adapted them to teach civilians. He first used the English term "First Aid for the Injured"¹, conducting the first public first aid classes. Shepherd, evacuating an ambulance wagon of wounded, was speared when he dismounted to assist a wounded trooper. His notes were published, and soon taught throughout Britain by the newly-formed St John Ambulance.

Groote Schuur Hospital in Cape Town houses the Nagin Parbhoo History of Anaesthesia Museum, with equipment dating from 1847 – one year after Morton's use of ether. Surprisingly, many pieces have an Australian connection, such as Dr Anthony Cohen and his Minivent². Our hosts were Emeritus Professors Peter Gordon (curator) and Mike James (Chair, Scientific Committee, 2008 World Congress), both well known to many Australian anaesthetists.

On behalf of Ian Donaldson, curator

of the Ambulance Service Melbourne Museum, I presented the museum with a Komesaroff Resuscitator. Dr David Komesaroff, anaesthetist, engineer, and Hon Senior Anaesthetist, Ambulance Service Melbourne, taught me endotracheal intubation as a paramedic in the early '70s. He designed the resuscitator for pre-hospital and disaster resuscitation and analgesia³. It incorporates low flow oxygen with a CO₂ absorber and a methoxyflurane vapouriser. It was used in Melbourne's Mobile Intensive Care Ambulances from 1972 onwards. Dr Brian Pezzutti recently referred to the role of anaesthetists in training paramedics⁴.

Groote Schuur also houses the Heart of the Cape Museum, with tableaux in the theatres where Professor Christiaan Barnard performed the first human to human heart transplant in 1967. The anaesthetist, Dr Joseph Ozinsky, used a technique of thiopentone and suxamethonium, nitrous oxide, oxygen and halothane, without opiates or non-depolarisers. (Pethidine 25 mg IM was given post-operatively to suppress shivering)⁵. The recipient survived for 18 days, dying of pneumonia but with a functioning donor heart.

On behalf of the President of the ASA, Dr David M. Scott, I presented Emeritus Professor Peter Gordon with a medallion bearing the insignia of the ASA. The

presentation honours the collegial relationship between the Australian Society of Anaesthetists and the South African Society of Anaesthesiologists – the term was adopted some years ago, and is currently being discussed in Australia.

An extensive and stimulating academic programme of formal and informal presentations added interest and value to the professional aspects of the tour. We also visited game reserves in South Africa and Swaziland, with sightings of leopard, cheetah, lion, elephant, giraffe, many species of antelope and bird, and other game. Waking early to find zebra, warthog and blesbok grazing beside your traditional Swazi grass hut is a memorable experience!

Dr Paul Luckin AM FANZCA

References

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3. Komesaroff, D. (1973), 'A New Anesthetic Machine and Technic with Particular Application to Developing Areas'. *Anesth & Analg.* 52:605.
4. B Pezzutti, *Australian Anaesthetist*, Dec. 2017, (letter).
5. Ozinsky, J. 'Cardiac Transplantation – The Anaesthetist's View', *South African Medical Journal*, 30 Dec 1967; 1268–70.