

Jugaad	
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Title	Jugaad in Practice in South Africa
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Jugaad in Practice in South Africa

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In South Africa, the public health care system serves an estimated fifty-three million people and is severely resource-constrained, a common theme in many African countries. While global surgical practices are working to improve the surgical care provided to patients in low-middle-income countries, children are often neglected in these approaches.

Children's surgery often requires more complex and innovative solutions, yet children's surgeons must

contend with smaller budgets and lower priorities than their adult surgery counterparts.

Frere Hospital in East London, South Africa, is the only tertiary hospital for the central one-third of the Eastern Cape province, the poorest of the nine provinces in the country. Despite the pronounced resource constraints, clinicians and surgeons at Frere Hospital, serving a population of two million, 40% of which are children below 12, have

consistently demonstrated resilience and adaptability. They must adopt innovative solutions to bridge the gap between the demand for care and the shortage of resources in the facility.

The Carte Blanche Making a Difference Foundation donated R 20 million to build an operation theatre suite, one being digital and the other a general operation theatre, dedicated to children's surgery. It became operational in October 2014. It is the only operation theatre dedicated to surgery in children in the entire province, between the state and private facilities. This theatre suite is used by all specialities such as General Paediatric Surgery, Urology, Neonatal and Cancer Surgery, Paediatric Orthopaedic Surgery, Paediatric Neurosurgery, Paediatric Ear, Nose and Throat Surgery and Maxillofacial Surgery and serves over 1100 children each year.

When the air conditioning system in the theatre complex broke down, an anaesthetist (2) working at

the facility demonstrated the power of Jugaad. He designed and installed a temporary air conditioning system, ensuring the theatre complex remained operational. This innovative use of Jugaad in a resource-limited setting significantly impacted the provision of surgical care to South African children.

An air conditioning unit was set up in the operating room using duct pipes. The pipes ran out of the theatre through a nearby window, elevated on the intravenous fluid stands.

This innovation was not based on scientific design. However, it allowed the theatre complex to offer services for a few weeks, thus safeguarding the continuation of surgical services for children in this region of the Eastern Cape province in South Africa. The materials needed for the project were supplied by the hospital, allowing Dr Joubert to set up the system. Therefore, a tiny solution has had a significant impact on the provision of surgical care to South African children.



Figure 1: Duct pipes held up by IV stands.



Figure 2: portable air conditioning unit in the operating theatre.

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