



The Children's Hospital Trust

Advancing Child Healthcare through the
Red Cross War Memorial Children's Hospital



The Lives You Have Helped

**Upgrade & Expansion of the
Paediatric Intensive Care Unit (ICU)
at**

**The Red Cross War Memorial
Children's Hospital
2015 - 2017**

**Final Report
November 2017**

Background to the Upgrade and Expansion

The Paediatric Intensive Care Unit (PICU) at the Red Cross War Memorial Children's Hospital is one of the busiest in Africa and provides emergency care for hundreds of critically ill or injured children. Most patients are infants and toddlers from within the Western and Eastern Cape, but some travel from the rest of the country and in some cases from Sub-Saharan Africa.

The PICU teams deal with complex cases including cardiac (250-300 cases per year), neonatal surgery (on the smallest of children, weighing only 700 grams), neurosurgery, trauma and burns (50 - 60 per annum), tracheostomy children, respiratory and neurological conditions.

Outcomes

- Increased number of beds from 22 to 39 beds, including increasing the distance between beds to accommodate equipment, clinicians and family
- Created a new high care neonatal facility of 10 beds
- Created 8 isolation units that did not exist before
- Spacious rest and change areas for staff
- Provision of comfortable spaces and facilities for families of patients
- Much needed storage space for equipment
- Facilities for clinical and research staff



Dr Shamiel Salie - Senior ICU Consultant

"We are incredibly lucky to be able to work in a modern new facility. There is a massive improvement in the delivery of care and patient monitoring we are able to provide with the new state of the art equipment and wards. The new isolation cubicles have already protected children who were at high risk of contracting infections from other patients. In general, the staff morale has increased, which is very important for our type of teamwork when treating critically ill children."





It happened so quickly !

It was Friday the 6th of October and the end of the school holidays. Lilitha and his friend had walked to the local barber shop to have their hair cut as they were going back to school on Monday. After they had their hair cut, the boys wanted to spend the last day of their holiday playing in the park before they went home, they had to cross a road to get to the park. Lilitha was knocked over by a speeding vehicle as they were crossing the road. His friend was in complete shock and ran as fast as he could to get help for his friend. Lilitha's mom was told what had happened to her precious 10 year old son and collapsed in tears.

Lilitha was rushed to their local hospital in Khayelitsha, a community just outside Cape Town. On arrival at this hospital, the medical team immediately transferred him to the Red Cross Children's Hospital, 27km away. He was in a critical condition and doctors were concerned about a severe brain injury.

His mom and his aunt have not left his side since arriving at Red Cross. The aunt says, "On the second day, the doctors told us early in the morning that they had done everything they could but that we could lose him at any minute. **We never lost hope.** We kept on praying for Lilitha." This little fighter was the first patient in the new Surgical Unit and benefitted from the new equipment purchased. His family were able to use the comfortable family waiting area when they needed to take a break or have something to eat.

A few weeks later, Lilitha is alive and slowly recovering from the accident. He is now able to open both eyes and smiles at his mother. His family is just thankful that he is alive and although Lilitha is struggling at the moment, they have faith that everything is going to work out just fine. The new unit and its equipment ensured that the clinicians had all they needed to help Lilitha and provided a comfortable space for his family while they waited by his side.



Lilitha was the very first patient to enter the new Paediatric Intensive Care Unit (PICU) on Tuesday, 31st October 2017. His mother couldn't stop smiling and saying how excited she was that her baby boy was the very first to enter the new equipped PICU



The Change

Having a child in ICU is an overwhelmingly frightening experience for any family. Creating the most conducive environment, to the highest possible global standards, is therefore of paramount importance.

The Intensive Care Unit was officially handed over for construction in September 2015. It was agreed that the building would be phased to ensure patient units would be opened before completion. In August 2016, a year after construction began, patients were moved into the first completed patient unit, the C1 ICU Medical Unit.

The full construction was completed in October 2017 taking 25 months to fully complete. Patients moved into the second patient unit, C3 ICU Surgical Unit during the first week of November along with the rest of the medical team and researchers moving into their new spaces on the D Floor. The staff were excited about their resting, shower facilities and working spaces.



**Western Cape Minister of Health,
Dr Nomafrrench Mbombo.**

“The best health systems are those that provide the best care for the most vulnerable members of our communities. The youngest members of our communities are amongst the most vulnerable. We are delighted to continue working together with the Children’s Hospital Trust and the people of Cape Town to provide world-class healthcare to our children.”





49% of the children who are cared for in the ICU are younger than 1 year's old

36% of the children are between the ages of 1 and 6 years old

15% of the children are between the ages of 7 and 14 years old

ICU Space for Children



Old ICU space with old equipment, which was dark and dreary, with patients noticing the paint peeling from the walls



New ICU with modern new equipment, light and spacious between beds, with 8 new isolation cubicles



Old ICU corridor, the old ICU had no isolation cubicles for patients at high risk of cross infection



The first patient moving in to the New ICU - 3 week old baby Sha-annor on 17 August 2016



ICU staff making sure that all patients are carefully monitored and settled into the new ICU

The Difference it has made for Children



Provide an improved intensive care service for children by the:

- Expansion of bed capacity from 22 to 39 bed space to enable the provision of intensive care for more children
- This will include the additional neonatal high care facility of 10 beds that will open bed space in the ICU and ensure the tiny patients receive the special care they need
- The expanded space will also increase the space allocated per bed which will help prevent cross infections and provide space for ward rounds
- Allow clinicians and family to move freely between the beds and provide adequate space for larger equipment.

Provide 8 isolation facilities in the PICU that will:

- Protect patients from cross infections, particularly those children who are contagious or have a low immune system.
- The isolation units will be in a larger space so that in the event of disease outbreaks more beds could be moved into the area to manage cross-infections

Provide a high care facility for neonates

- Ensure that the neonates receive the complex medical care they need in an environment which is safe and specifically designed to minimise the potential risks of hospital acquired infections.





Henelie Boer, mom of Gredwin who was knocked over by a vehicle : “The accident damaged half his liver, his skin and his ribs. He now needs a machine to help his kidneys because they do not work properly. We arrived here from George and the doctors feared he may not survive from his injuries. But until now, he has been opening his eyes, moving his head and making progress. The hospital staff have been very helpful. This makes me feel a little closer to home. This ICU is so spacious and I’m able to be next to Gredwin, even while the doctors and nurses are busy with him. Everything in this ICU is so modern and world class, compared to the small ICU in the other hospital in George”

Support for Families and Caregivers

When a child is admitted to ICU, the regular day-to-day lives of parents and family changes instantaneously and their lives are literally put on hold. They could spend days and weeks living at their desperately sick child's bedside in a constant state of intense anxiety. Families need a comfortable space to sit or rest while their child is a patient in the ICU.



Old parent waiting room at ICU



New parent waiting room, fitted with a kitchenette for tea and coffee



New breast-feeding room for parents, previously no space was available

The Difference it will make for Families and Caregivers

Provide a comfortable resting or waiting spaces for families and caregivers

- Families and caregivers now have a comfortable waiting area with the provision of overnight accommodation on the same floor for families of critically ill or injured children.
- Mothers are given another opportunity to maintain a connection with their baby through breast feeding. The Neonatal Unit facilities offer a comfortable and private space for breast feeding and in turn maintains high standards of hygiene and infection control.



Support for Staff

In a PICU the nurse: patient ratio is 1.5: 1. There are **100 staff employed** in the PICU, with over 50 doctors and nurses on duty at a time and all working in a highly stressful environment. These dedicated specialists work 12 hour shifts and are on their feet most of time. It is equally important to offer a comfortable sleeping area for doctors in training who work 28 hour shifts and two doctors who are on shift at night



Old ICU staff tea room / lounge for nurses & doctors



New ICU staff tea room / lounge



New sleeping room for Doctors-on-Call

The Difference it Will Make for Staff

Provide adequate space for PICU staff

- All ICU staff now have a comfortable space to rest or take a break and doctors working long shifts have a comfortable room to sleep or rest for a couple of hours
- Increased office space to accommodate medical staff, nursing staff, therapists, social worker and dieticians, to enable them to work effectively
- Enhanced staff areas will ensure that there is adequate accommodation and working space for a substantially increased staff complement for the intensive care services that include clinical, educational and research duties

Nursing Staff - It is so lovely in our new tea room. The lightness of the ICU and resting spaces helps us to feel much more energized to go back to our shifts. We really appreciate the additional microwaves, the lockers for our personal belongings, and the quiet space to take a nap when we're tired. Even just the view from our tea room balcony makes us feel calmer before heading into a serious ICU work environment. We really want to thank everyone involved in making our work space such a pleasure to be in. We look forward to coming to work now, and much more confident that we're going to save more and more lives every day here in ICU.





The total updated budget for the ICU Upgrade and Expansion Project was R99 553 554. The building costs, of which all funds was raised totalled R69 553 554. The equipment cost of which all funds was raised totalled R30 000 000.

When you donate to the Trust, every cent goes towards funding projects and programmes that change children's lives (and the lives of the people who love them). The operational costs of the Trust are funded from an endowment, so your generous contributions are never used for administration.



Mr Earl Isaacs - Clinical Technologist. Earl and his team are responsible for the maintenance and sterilisation of all ICU equipment. Previously they shared the storeroom on the ground floor for their operations, but in the new ICU layout, they have their own dedicated space for their equipment storage and checks.

“Turnaround time between patients requiring equipment is now much shorter. Within two hours we can now have machines and equipment ready to be utilised again, compared to previously the turnaround time could take up to two days. We are enjoying our space and feel like we're able to service patients needs a lot faster and better, especially with the brand new equipment purchased with this upgrade of ICU.”





Our heartfelt and sincere appreciation extends to every single donor for supporting this inspirational project which will ultimately benefit the most critically ill and injured children in the hospital. Your belief in the urgency of our appeal has been the sole reason behind the success of this project. We could never have done this without your unwavering support. As Professor Andrew Argent says, **“This unit will continue to save ten’s of thousands of children into the future”**

Thank You !

