Paeds on Broadway

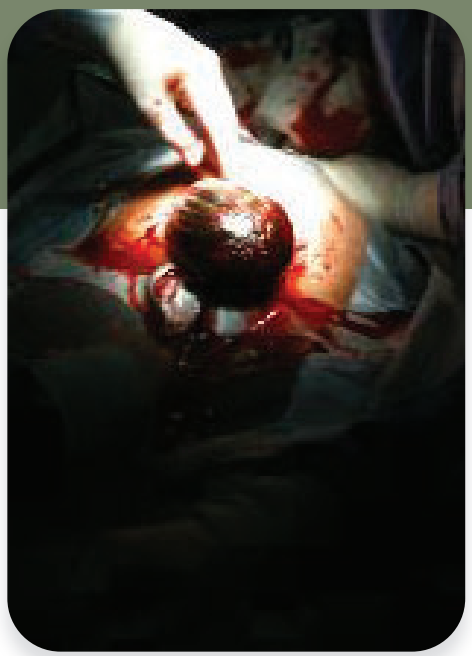
The NICU Journey

Welcome and Congratulations

Welcome and congratulations on the birth or impending birth of your new baby.

> Excited, nervous and scared all
> at the same time. This is Parenthood.

We would like to give you some insight into the workings of our neonatal ICU. We, in this way, hope to facilitate a smooth transition for you and your baby.

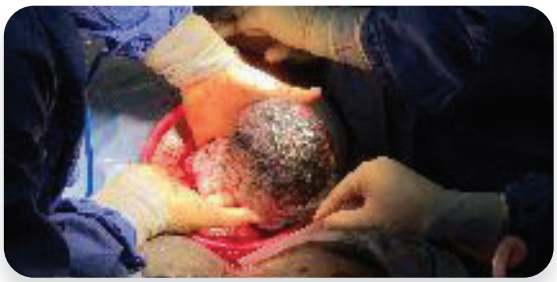


Day 1

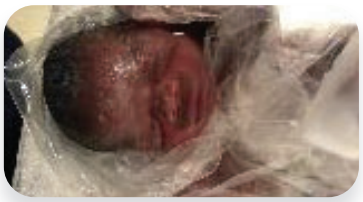
The day of the delivery

The Delivery

The obstetric team has decided that your baby needs to be born in the best interest of both your baby and his or her mother. The delivery may be planned, or an emergency. Either way, we as a team, are prepared for the challenge. The mode of delivery whether vaginal or caesarean section is specifically chosen to ensure the safety of both baby and mother. The personnel present will be determined beforehand, in consultation with your obstetrician. At delivery we practice delayed cord clamping which allows your baby a chance to 'fill up' on blood from the placenta. Your baby need not cry yet, crying becomes more important after the cord is cut. Your baby is then brought to the infant warmer, where he or she is met by the paediatrician or a member of the nursing staff trained in resuscitation.



Resuscitation and Breathing



Resuscitation entails the use of a mask attached to a resuscitator. This allows us to initiate and aid your baby's breathing by giving breaths and then positive pressure. This will open your baby's lungs and keep the lungs open.

Warmth

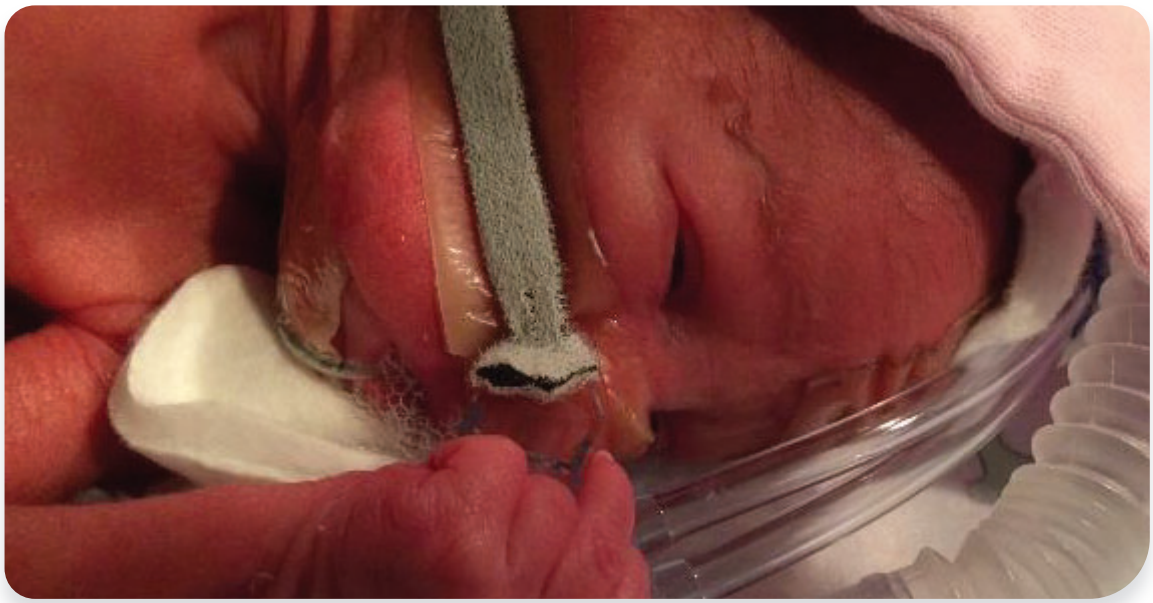
To ensure that your baby gets through the transition from inside life to outside life comfortably, we need to ensure that baby does not cool down. For babies bigger than 2 kilograms this means an overhead warmer and/or incubator. For smaller babies this means also adding a special plastic 'sleeping bag' to stop heat loss plus the overhead warmer.

Transport

We usually transport baby from the place of birth to the NICU making use of an incubator. We continue the baby's respiratory support and maintain his/her temperature during transport.

NICU-Care

Once on the NICU, your baby will be given respiratory support by means of CPAP, High Flow or Ventilation. We make use of ventilation (machine breathing) only when absolutely necessary. It is not uncommon for preterm babies to require surfactant. This is a milky white medicine that we inject into the baby's lung via a tube. It helps to stabilise the lung and keep it open. The smaller the baby, the longer respiratory support may be required.



Feeding is usually started as soon as possible. Most often, NICU babies are fed by a tube that runs from the nose, or mouth, to the stomach. This is the optimal way of feeding until they can feed orally, which occurs at about 34 weeks' gestation and when respiratory support is minimal. We can then use a cup, syringe, bottle or breast. We would like to give your baby breast milk from the get-go. If baby's mother does not have enough breast milk, we can offer donor breast milk for the first 3 days, specifically to babies weighing less than 1500 grams. The breast milk donors are tested for HIV and Hepatitis B. Their milk is pasteurised/sterilised and deep frozen for use when needed. All babies need breast milk because it is softer on the stomach, prevents infections and is vital for normal growth and development. There is no substitute for babies under 1500 grams. Breast milk will be used to ensure growth and ensure the best possible neurological outcome for your baby. Every mother is expected to start pumping breast milk from the first day. We will help. Drops become millilitres which become full feeds. This is not negotiable unless an alternative is medically indicated.

The answer to milk production is disciplined 3 hourly expressing every day.
Bigger babies may get formula feeds if no breast milk is available. Your breast milk will start as a few drops and progress to full feeds. We will teach you to express your milk and store it for your baby. Your baby's feeds will progress to full feeds over 7 to 10 days.

Most babies admitted to the NICU will require a drip for fluids, medications or antibiotics. Some babies will need a long drip for specialised fluid, medications or intravenous feeds. We then place a line in the umbilicus or make use of a long line which is a very thin line that passes under the skin, in the vein, from an arm or leg up to the big veins of the body. The drips and lines are removed as soon as they are no longer necessary. These drips however can cause injury to the skin and/or bruising. Despite the utmost care, this cannot always be prevented.

Your baby, if in an incubator, may require a very damp environment which is achieved by a humidifier in the incubator and gives a rain forest effect.

Preterm babies often develop jaundice, which is normal, and may thus require 'blue light' called Phototherapy, to treat the condition. This is normal and you need not be worried about this development.

Monitoring your baby is done in many ways. We measure and control blood oxygen, heart rate, blood pressure, breathing rate and check the bodies internal balance regularly.

We look for infection regularly in the blood, stomach juice, urine, mucous from the lungs if indicated and if your baby is ill, we will start antibiotics while we wait for results. This can take up to 3 days to receive. If not indicated, antibiotics will be stopped after this period or the course completed (5 days).

Simply put, your baby may require a number of simple blood tests. These are necessary to monitor your baby's progress, look for possible complications, assess nutrition and evaluate certain therapies that have been effected. These tests are mostly done by Pathcare and should be paid for in full by your medical aid.

Any X-rays, sonars and scans are done by SCP radiologists. Almost all babies will at the very least have a brain sonar whilst on the unit. The results of these tests will be communicated to you as parents. If you do not receive the results of any tests, please feel free to ask.

Illness

Your baby may simply be preterm or may be sick. Whilst on the unit his or her condition may change with illness becoming the focus of our attention. These illnesses may be related to the pregnancy, congenital abnormalities, infection developed before or after birth, related to the care challenges of prematurity and especially extreme prematurity or be completely unexpected. Should such issues arise, your baby will be cared for according to international standards of care. These problems often arise after hours and are emergencies. We endeavour to inform you of these changes as soon as possible if serious, or the following morning if not so (for example, we suspect early infection and baby is well but requires certain tests and antibiotics).

Different conditions require different approaches: Respiratory issues may require more intensive breathing support, X-rays, chest scan and/or lung specialist opinion. Heart conditions may require blood pressure support, special medication to treat certain blood vessels, respiratory support and may even require transfer for surgery if so deemed by our resident paediatric cardiologist, Dr Liesel Andrag. Stomach complaints may require X-rays, sonars, stopping feeds (with intravenous feeds started via special drip lines) and if necessary, surgery. The treating team members may require a surgical opinion which is usually effected by our resident paediatric surgeon. Urinary or kidney issues may require a urinary catheter, sonar, a urology or kidney specialist opinion.

Brain problems may require a sonar, brain scan, brain wave monitoring, blood clotting support and even whole-body cooling. Some brain or nerve issues may require a Neurology opinion and/or physiotherapy which is done by Reze from Marulize Swarts Physiotherapy.

If your baby has feeding problems, our nursing staff are trained to help, however we may need to refer baby to a speech therapist, namely Madre Kroukamp, for assistance. Ear, nose and airway problems may require the attention of our Ear, Nose and Throat specialist, Dr. Pieter Naude.

If we are concerned about your baby’s growth, nutrient requirements or if your baby is under 34 weeks' gestation, Mrs Dorothy Vd Spuy, our dietitian, will be involved with the nutritional care of your baby.

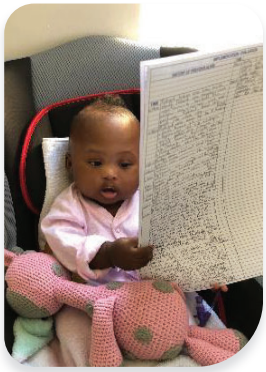
All babies on the Neonatal ICU are considered high risk for certain developmental issues. In principle all NICU graduates require hearing evaluation done by Ms. Claudia Muller of Deidre Stroebel Audiologists. Very small or very sick babies may require eye screening to look for eye problems associated with your baby's specific condition; this is done by Dr. Christa Joubert. Most preterm babies will require physiotherapy support in at least the first year of life, once again guided by Reze and the Marulize Swart team.

Various other specialists may be consulted. If we suspect a congenital condition or genetic condition a geneticist will be consulted. Dr.Ryno Du Plessis is our resident paediatric orthopaedic surgeon. Plastic surgeons include Dr. Christie Smit and Dr. Alex Zuhlke.

All babies and their parents are referred to our resident social workers Mrs. Celeste Fortuin. This referral is purely for support of the family throughout their stay on our unit and if necessary, extends past the discharge date. Our social worker's involvement past an initial consultation is determined by the parent's needs. Having a baby on a Neonatal ICU is in no way normal, please make use of this service even if only to have someone to open up to about your fears and anxieties.

Discharge Date

Discharge is usually affected when your baby has recovered from all illness, is gaining weight, is out of the incubator, can finish all his/her feeds without tube feeding help and is older than 35 weeks' gestation. This **all comes together at about his or her expected date of delivery**. Some babies will need to remain longer because of their specific illness.



We will discuss this with you as family when the time for graduation draws nearer.

Post Discharge

We, as a team are there for you. Should you have any issues please feel free to contact the unit. If our NICU sisters cannot help they will contact one of the neonatal doctors for advice. All life and death emergencies outside of the hospital should be attended to by the ambulance emergency services or the nearest Emergency Room at your nearest healthcare facility.

You will be given or asked to make an appointment at our rooms, usually for a weight check, 1 week after discharge. There will also be an appointment between 2 and 6 weeks after discharge. At this appointment we will discuss any problems that have occurred, immunisations, treatments needed and supplements that must be taken by your baby in the first year of life.

Follow up appointments after the initial appointment may be necessary at 3-4 monthly intervals. Monitoring growth and development is important. You should have at least one outpatient appointment with Reze for physiotherapy.