

The Extreme Prem

New Challenges, New Approaches & New Technology



Ricky Dippenaar

Netcare N1 City
and
Netcare Blaauwberg Hospitals

in affiliation with
The University of Cape Town





DR RICKY DIPPENAAR

Neonatologist

DR KIM PRINCE

Neonatologist

Open

Neonatology Fellow

DR SHEHNAAZ AKHALWAYA

Paediatric Rheumatologist

NURSING TEAM

Highly skilled



Ncelisa
Human
Milk Bank



Xenex
Robot

Core issues

You get one chance at these babies
Mistakes are life long

Extreme Prematurity remains one of the most controversial topics in the field of neonatology

There isn't a **recipe** for the management of the Extremely PreTerm Neonate but rather **a sequence of interventions** that represent a **base from which to tailor individualized management**

It's a medicolegal minefield

It's a funding nightmare

It's emotively delicate



BW 380 gm 24 weeks Day 14 NINO

96 days in NICU transferred to peripheral hospital 12 days before discharge

Grd 1 IVH , No PVL , No NEC, No ROP

Happy success story !

Nasty side of private practice
Funding & Medico-legal
challenges



BW 380 gm 24 weeks - **MEDICAL SCHEMES ACT 131 OF 1998**

96 days in NICU – **COST for admission event R 2 million +**

Grd 1 IVH , No PVL , No NEC, No ROP – short and long term COST saving to scheme
IRRELEVANT as the doctor charges above medical aid rates

So where are these Costs generated ?

What is the cost of the 1st day in the
Neonatal ICU approx. R 60 000

Daily bed rate in NICU

Neonatal Intensive Care Unit: per day	R22 783.10
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Neonatal High Care Ward A: per day	R12 730.70
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Neonatal High Care Ward B: per day	R 8 323.30
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Neonatal Ward Fee: per day	R 5 486.00
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So where are these Costs generated ?

Now add a complication
of prematurity

Surgical NEC?

Add R250 000 to any bill

What's the cost of incubator or ventilator ?

Giraffe Omnibed	R550 000
Giraffe Warmer	R380 000
SLE 6000 / Draeger Ventilator/ Fabian	R450 000
Brainz Monitor	R350 000

MEDICAL SCHEMES ACT 131 OF 1998 under PREGNANCY AND CHILDBIRTH

Funding

Legal technicality from the MEDICAL SCHEMES ACT 131 OF 1998 under PREGNANCY AND CHILDBIRTH

Code	Diagnosis	Treatment
67N	Low birth weight (under 1 000g) with respiratory difficulties	Medical management not including ventilation

Essentially if a baby is born below 1 kg regardless of whether the ICD-10 codes indicating its an acute involuntary PMB admission , addendum 67N of this act allows **medical aids to be exempt from paying for ventilation codes (1212, 1213 & 1214) as a PMB and hence at COST**

Remember ventilation codes 1212, 1213 & 1214 apply not only to invasive ventilation but also non invasive so NINO , NIPPV , Biphasic , nCPAP etc

Includes ventilation circuits , consumable , sensors , gases , above ventilation codes until the baby reached 1 kg

Funding

What it means is ALL other codes ICU codes (1204-1210), drip and line (0209 1202 1215 0205) etc relating to that admission still **MUST be paid as a PMB and paid in FULL** at cost, provided they comply with DSP restrictions and the ICD-10 coding is correct.

Medical aids **CANNOT** refuse to pay the **entire claim**, the regular “customers not to be mentioned” have definitely tried

Comments from Hospital Benefit Management

*Good morning, ***** option does not cover ventilation if the baby is under 1000g. Mechanical ventilation is declined until the baby weighs 1000g, thereafter ventilation will be approved, member will be liable for the cost until baby weighs 1000g. Member may apply for ex-gratia to cover this cost through customer services Kind regards.*

Funding

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Medical aids **CANNOT** refuse to pay the **entire claim**, the regular “customers not to be mentioned” have definitely tried

According to the addendum to this Act, Medical aids only **have to pay for the code at medical aid rates** they also cant refuse to pay for it either.

HOWEVER !!!!!!!!!!!!!!!!



Funding

Fortunately the persons who drafted this 24 year old regulation had some insight, namely that technology changes faster than the law

“Where significant differences exist between Public and Private sector practices, the interpretation of the Prescribed Minimum Benefits should follow the predominant Public Hospital practice, as outlined in the relevant provincial or national public hospital clinical protocols, **where these exist**”

Western Cape (other provinces ??) has outlined protocols for ELBW infants



Western Cape
Government

Health

Directorate:

Office of the Chief of Operations

Reference:

12/2/3/1

Enquiries:

Dr Keith Cloete

To: The DDG: Chief of Operations
The CFO
The Chief Director: Strategy and Health Support
The Chief Director: Health Programs
The Chief Director: People Management
The Chief Director: Infrastructure and Technical Management
The Director: Communications
Chairpersons PCGC: Paediatrics, Obstetrics and Gynaecology
Deans of Health Sciences Faculties: UCT & US

CIRCULAR H 10 /2017

Standard post-natal interventions for pre-viable preterm birth in extremely low birth weight infants in the Western Cape Province Department of Health: Decision Support Framework

1. This framework aims to provide a clear approach to the management of babies born extremely prematurely or with an extremely low birth weight for those responsible for the implementation of the attached Standards.
2. The document includes:
 - An overview of its essential content
 - The background and reasoning for the standards
 - The principles that guide the interventions including clinical accountability
 - The intervention levels themselves and the decision-support system
3. For your attention and implementation.
4. Contact person for enquiries: Dr Tony Westwood at Anthony.Westwood@westerncape.gov.za

DR BETH ENGELBRECHT
HEAD OF HEALTH

DATE: 2017-02-14

GROUP 1: Neonatal interventions in Cape Town Hospitals housing NICU beds (TBH, GSH, MMH)

Category 1

<27 weeks¹ OR ≥500g-<650g IV/NG Fluids/feeds, warmth, antibiotics, regulated and monitored oxygen (incl. CANPAP/high flow if available), caffeine, KMC
NCO2/CANPAP/CPAP may be offered only in inborn, well-prepared infants in good condition at birth, depending on bed availability.
No surfactant
No routine blood gas monitoring or blood tests
Palliative measures if failing to respond

Category 2

≥27 weeks AND 650g-799g IV/NG Fluids/feeds, warmth, antibiotics, oxygen (incl. CANPAP/high flow if available), caffeine, KMC
CPAP, and InSure if indicated (not > 1 instillation)

Category 3

≥27 weeks AND ≥800g IV/NG Fluids/feeds, warmth, antibiotics, oxygen (incl. CANPAP/high flow if available), caffeine, KMC
InSure, any available respiratory intervention
Must be in an ICU bed if on IPPV or oscillation

Can you imagine what one of these medical aids will do when
the
artificial womb arrives



Happy success story !

Nasty side of private practice
Funding & Medico-legal
challenges

Realities and Challenges in SA

- South African law still classifies sub 26 weeks gestation as a miscarriage
- In reality technology has evolved in the field of Neonatology at an alarming pace and so has our knowledge and skill level
- Survival of < 1000g infant is no longer a probability but a **REALITY** but is heavily dependant on resource expenditure, a significant challenge within both the public and private sector
- The counter argument is, sure they survive, but at what **COST**? What is the long term consequences of pushing these micrograms to the limits of technology? A significant medicolegal and ethical challenge we commonly face in the private sector



MPS was asked...
How do I mitigate
my risk?



EXTREMELY PRETERM NEONATE

Mitigating Risk

You have to “ensure you have appropriately educated the parents about the **risk and strategies** that is **signed and documented**” by numerous players in the field

The team consists of:

- The parents

- Fetal assessment

- Obstetrician

- Neonatologist / Paediatrician

- Social worker

- Finance department

And often the past graduates (incl. mothers with infants with special needs)

DR RICKY DIPPENAAR

MB ChB (UCT), DCH (SA), MMed (Paed), FCPaed (SA), Cert Neonatology (SA)

NEONATOLOGIST

Disclaimer for Extremely Preterm Infants

Your baby has been admitted or is about to be admitted to the neonatal ICU having been born before 26 weeks gestation. Management of newborns at this gestational fall outside the South African guidelines for viability and represents the extremes of what medicine and technology can manage.

Please read the following important information:

Gestational age	Survival	Severe Neurological deficit	Moderate-to-Severe Neurological deficit
<23 weeks	18%	33%	43%
<24 weeks	41%	17%	40%
<25 weeks	57%	21%	28%
<26 weeks	70%	14%	24%

Your baby is extremely premature and the first 72 hrs are critical to the survival of your child.

The **LUNGS** have not fully developed and will require mechanical ventilation using a breathing machine as well as replacement therapies to stabilise oxygen delivery. Common lung complications include bleeding, infection, collapse and air leaks. Breathing tubes may be needed which can become blocked, dislodged or migrate deeper. Emergency drains in the chest wall may be required for air leaks. Nose trauma including skin loss and permanent nose cartilage damage is a common complication of applying life-saving breathing machines to extremely premature infants' noses.

The **BRAIN** has not fully developed and common complications such as bleeding, stroke, blockages and convulsions in a developing brain place your child at extreme risk of long-term neurological complications.

The **HEART** is fully developed however a common complication is non-closure of a blood vessel, the patent ductus arteriosus (PDA) which can also result in bleeding from the lungs, heart failure and blood pressure problems.

The **SKIN** is extremely fragile and injured simply by the birth process, placement and removal of adhesive tapes and cleaning solutions. Your baby will be placed in a humidified environment to assist in the maturation of the skin and protect from excessive skin water loss. Long term scarring from various injuries including complications from drugs is very common and can lead to significant permanent scarring.

The **INTESTINES** are well developed however extremely sensitive and survival is completely dependent on human breast milk. Only human breast milk will be given to your baby. Complications include infection, rupture and blockages and may require surgery.

The **EYES** are at extreme risk of complication relating to the life-saving management (including the use of oxygen) needed for the care of extremely premature infants. Complications include permanent blindness. The eyes will be repeatedly examined and may need laser to the eyes to prevent permanent disability. Laser therapy can only be performed at another hospital.

The **EARS** are also at extreme risk of complications relating to the life-saving management needed for the care of extremely premature infants. Complications include hearing loss and permanent deafness. Your child may require hearing aids or implants.

The **BLOOD**, extremely premature infants do not make enough blood and multiple blood transfusions and clotting factors may be required prior to your baby being discharged.

The **INFECTION**, extremely premature infants do not fight infection well and is a life-threatening complication of extreme prematurity. Multiple courses of antibiotics will most likely be required for your child.

The **PROCEDURES**, various central catheters in the umbilicus, in the veins and in the arteries are required as part of the life-saving management. Complications related to lines include infections, clots, bleeding or migrate to life-threatening organs.

Should your child survive, your child will face significant health challenges within the first 2 years of life and will have far more frequent admissions to the hospital for common childhood disease.

The greatest concern is always the risk of long-term neurological problems and although most children survive without moderate or severe neurological problems these children often have challenges when attending mainstream schools including hyperactivity and short attention spans. Many graduates from the neonatal ICU need smaller classes and additional teaching in order to integrate better in mainstream schools.

I, _____, acknowledge I have been appropriately counselled. I understand Dr. R. Dippenaar and his team are challenging the boundaries of medicine and technology and consent to the management, procedures and treatment of my child with full knowledge and acceptance of the risks, the potential complications and possible long-term complications.

Signature Parent / Guardian

Witness

Date

DR RICKY DIPPENAAR

MB ChB (UCT), DCH (SA), MMed (Paed), FCPaed (SA), Cert Neonatology (SA)

NEONATOLOGIST

Disclaimer for preterm infants

Your baby has been admitted or is about to be admitted to the neonatal ICU

Your baby is premature and the first 72 hrs is critical not only to their survival but also their long-term outcome.

Please read the following information carefully

The **LUNGS** have not fully developed and may require mechanical ventilation using a breathing machine as well as replacement therapies to stabilise oxygen delivery. Common lung complications include bleeding, infection, collapse and air leaks. Breathing tubes may be needed which can become blocked, dislodged or migrate deeper. Emergency drains in the chest wall may be required for air leaks. Nose trauma including skin loss and permanent nose cartilage damage is a common complication of applying life-saving breathing machines to premature infants' noses.

The **BRAIN** has not fully developed and common complications such as bleeding, stroke, blockages and convulsions in a developing brain place your child at extreme risk of long-term neurological complications.

The **HEART** is fully developed however a common complication is non-closure of a blood vessel, the patent ductus arteriosus (PDA) which can also result in bleeding from the lungs, heart failure and blood pressure problems.

The **SKIN** is extremely fragile and injured simply by the birth process, placement and removal of adhesive tapes and cleaning solutions. Some babies will be placed in a humidified environment to assist in the maturation of the skin and protect from excessive skin water loss. Long term scarring from various injuries including complications from drugs is very common and can lead to significant permanent scarring.

The **INTESTINES** are well developed however extremely sensitive, and survival is completely dependent on human breast milk. Only human breast milk will be given to your baby. Complications include infection, rupture and blockages and may require surgery.

The **EYES** are at extreme risk of complication relating to the life-saving management (including the use of oxygen) needed for the care of premature infants. Complications include permanent blindness. The eyes will be repeatedly examined and may need laser to the eyes to prevent permanent disability. Laser therapy can only be performed at another hospital.

The **EARS** are also at extreme risk of complications relating to the life-saving management needed for the care of premature infants. Complications include hearing loss and permanent deafness. Your child may require hearing aids or implants.

The **BLOOD**, premature infants do not always make enough blood and multiple blood transfusions and clotting factors may be required prior to your baby being discharged.

The **INFECTION**, premature infants do not fight infection well and is a life-threatening complication of prematurity. Multiple courses of antibiotics may be required for your child's stay in the neonatal ICU.

The **PROCEDURES**, various central catheters in the umbilicus, in the veins and in the arteries may be required as part of the life-saving management. Complications related to lines include infections, clots, bleeding or migrate to life-threatening organs.

Depending on how premature your child is they may face significant health challenges within the first 2 years of life and will have far more frequent admissions to the hospital for common childhood disease.

The greatest concern is always the risk of long-term neurological problems and although the vast majority of premature infants survive without moderate or severe neurological problems, depending on how premature your child was at birth they may face challenges when attending mainstream schools including hyperactivity and short attention spans. Many graduates from the neonatal ICU perform better in smaller classes and benefit from additional teaching in order to integrate better in mainstream schools.

I, _____, acknowledge I have been appropriately counselled. I understand Dr. R. Dippenaar, and his team face unique challenges and consent to the management, procedures and treatment of my child with full knowledge and acceptance of the risks, the potential complications and possible long-term complications.

Disclaimer for Extremely Preterm Infants

Your baby has been admitted or is about to be admitted to the neonatal ICU having been born before 26 weeks gestation.

Management of newborns at this gestational fall outside the South African guidelines for viability and represents the extremes of what medicine and technology can manage.

Please read the following important information

Gestational age	Survival	Severe Neurological deficit	Moderate-to-Severe Neurological deficit
<23 weeks	10%	53%	43%
<24 weeks	41%	17%	40%
<25 weeks	83%	21%	28%
<26 weeks	79%	14%	24%

Your baby is extremely premature and the first 72 hrs are critical to the survival of your child.

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The **HEART** is fully developed however a common complication is non-closure of a blood vessel, the patent ductus arteriosus (PDA) which can also result in bleeding from the lungs, heart failure and blood pressure problems.

The **SKIN** is extremely fragile and injured simply by the birth process, placement and removal of adhesive tapes and cleaning solutions. Your baby will be placed in a humidified environment to assist in the maturation of the skin and protect from excessive skin water loss. Long term scarring from various sources including complications from drips is very common and can lead to significant permanent scarring.

The **INTESTINES** are well developed however extremely sensitive and survival is completely dependent on human breast milk. Only human breast milk will be given to your baby. Complications include infection, rupture and blockages and may require surgery.

The **EYES** are at extreme risk of complication relating to the lifesaving management (including the use of oxygen) needed for the care of extremely premature infants. Complications include permanent blindness. The eyes will be repeatedly examined and may need laser to the eyes to prevent permanent disability. Laser therapy can only be performed at another hospital.

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The **INFECTION**, extremely premature infants do not fight infection well and is a life-threatening complication of extreme prematurity. Multiple courses of antibiotics will need likely be required for your child.

The **PROCEDURES**, various central catheters in the umbilicus, in the veins and in the arteries are required as part of the lifesaving management. Complications related to lines include infections, clots, bleeding or migrate to life threatening organs.

Should your child survive, your child will face significant health challenges within the first 2 years of life and will have far more frequent admissions to the hospital for common childhood disease.

The greatest concern is always the risk of long-term neurological problems and although most children survive without moderate or severe neurological problems these children often have challenges when attending mainstream schools including hyperactivity and short attention spans. Many graduates from the neonatal ICU need smaller classes and additional teaching in order to integrate better in mainstream schools.

I, _____ acknowledge I have been appropriately counselled. I understand Dr. R. Dippenaar and his team are challenging the boundaries of medicine and technology and consent to the management, procedures and treatment of my child with full knowledge and acceptance of the risks, the potential complications and possible long-term complications.

Signature Parent / Guardian

Witness

Date

The **PROCEDURES**, various central catheters in the umbilicus, in the veins and in the arteries are required as part of the lifesaving management. Complications related to lines include infections, clots, bleeding or migrate to life threatening organs.

THE PRACTICE OF Dr. R. Dippenaar
Address: N1 City NICU, Louwville Rothmans Street, Goodwood, Tel 021 590 4080
Blaauwberg NICU, Waterville Crescent, Sunningdale, Tel 021 554 9310

Please note that the practice of Dr. R. Dippenaar reserves the right to charge above medical aid rates. You and not your medical scheme will be responsible for any shortfall in this account.

A PATIENT [please complete in detail below]

NAME.....SURNAME.....ID No.....
CELL.....TELEPHONE.....EMAIL.....
POSTAL ADDRESS.....CODE.....
PHYSICAL ADDRESS.....CODE.....

B PERSON RESPONSIBLE FOR PAYMENT OF ACCOUNT

NAME.....SURNAME.....ID No.....
CELL.....TELEPHONE.....EMAIL.....
POSTAL ADDRESS.....CODE.....
PHYSICAL ADDRESS.....CODE.....

Terms and conditions

The responsible person (RP) as described in paragraph B (hereafter RP), binds himself as surety for and co-principal debtor jointly and severally with the patient to Dr. R. Dippenaar for the due performance by the patient of the obligations owing by him to Dr. R. Dippenaar in terms of this contract. The RP waives and renounces [1] any right to claim accounting from the creditor before making payment, [2] any benefits which the practice of Dr. R. Dippenaar as surety is entitled to in law, without detracting from the generality of the foregoing, including the benefits of excussion, division, cession of action and being sued together. The patient, as fully described in paragraph A, and the responsible person agrees to pay the medical practice of Dr. R. Dippenaar for services rendered at the tariff charged by Dr. R. Dippenaar from time to time. All accounts will be payable within 30 days of invoice date unless otherwise arranged in writing by the practice. Should the patient fail to pay the account, interest will be charged at 2% per month in addition to administrative fees. Dr. R. Dippenaar retains the right to commence with debt collection or legal proceedings should settlement not occur, the patient undertakes to pay all debt collection costs (contact belville@venicedonline.com or +27 (21) 945 3677 for fee structure) and/or legal costs relating to the recovery of the outstanding monies in respect of professional services rendered, including attorney fees on an attorney own client scale, collection commission and tracing costs. The patient and RP hereby authorize Dr. R. Dippenaar to receive, share and exchange credit information concerning them with any credit bureau or any other person or corporation with whom they have or may have financial dealings including, where applicable, information requested pursuant to, or in any circumstances contemplated in the National Credit Act 34 of 2005. The patient and RP choose the physical addresses as described above as their domicilium citandi et executandi for the purpose of legal proceedings and undertakes to notify Dr. R. Dippenaar in writing of any change to their domicile addresses. The signatories warrant that the terms and conditions of the contract have been read and understood and are agreed to and the contract is entered into on such terms and conditions.

The RP, parent or guardian acknowledges the patient file may be accessed by Dr. R. Dippenaar at all times and may be distributed to other medical personnel deemed pertinent to the patient's care, including the distribution of special investigations, imaging and clinical data. Information will be retained by the relevant medical personnel until the patient reaches the age of consent. All reasonable steps will be taken by Dr. R. Dippenaar's practice to ensure the patient's details are complete, accurate and protected.

The patient and RP hereby also acknowledge and accepts that -

Dr. R. Dippenaar's practice charges private rates (www.healthman.co.za) and not medical aid rates.
Dr. R. Dippenaar's practice applies modifier 0019 as per Medical Doctors Billing Manual for Neonatologists
Dr. R. Dippenaar's practice has informed the RP, the patient has been admitted with an acute PMI (Prescribed Minimum Benefit) condition and that as such medical schemes are liable for full settlement of Dr. R. Dippenaar's practice rates at cost with the exception of modifier 0019 which remains a Scheme dependent exclusion
Should their medical scheme not settle the account of Dr. R. Dippenaar in full, consent is granted and authorize to Dr. R. Dippenaar's practice to challenge the medical scheme at the Council for Medical Schemes on their behalf if needed.

SIGNED at.....on this theday of20.....

The RP, parent or guardian acknowledges the patient file may be accessed by Dr. R. Dippenaar at all times and may be distributed to other medical personnel deemed pertinent to the patient's care, including the distribution of special investigations, imaging and clinical data. **HOWEVER**

PRIVACY NOTICE

1. Introduction

- 1.1 We are committed to safeguarding the privacy of all our clients

2. The personal data that we collect

- [illegible]

1. Purposes of processing and legal basis

- [illegible]

4. Providing your personal data to others

- 4.0 All personal data is given online. I understand that my data will be stored in the secure online banking system.
- 4.0 I may choose different categories of data to which I do not want to allow access at [https://www.ubs.ch/ubs/privacy-policy](#) the security of online banking data.
- 4.0 Financial transactions relating to Swiss services (Swiss 1000) may be handled by our payment services partner provided only to the payment processor for the purpose of generating our payments, reflecting on existing or future payments and refunds. You can find information about this payment processor at [https://www.paycomet.ch/privacy-policy](#).

- in addition to the specific characteristics of personal data stored in the database, we may, therefore, use personal data when such data are necessary for compliance with a legal obligation to which we are subject, or [to defend our interests](#) or the interests of another natural person. We may also disclose your personal data where such disclosure is necessary for the establishment, exercise, or [defense of legal claims](#), whether in court proceedings or in an administrative or out-of-court proceeding.

5. International transfers of your personal data

- 3.0 We will make no arbitrary discrimination with respect to the data protection laws of each of these countries. (Transfer to each of these countries will be permitted by appropriate safeguards, namely the use of standard data protection clauses adopted in agreement to the European data protection authorities, a copy of which you can obtain from <http://ec.europa.eu/justice/data-protection> and more to come in a moment.)

5. Retaining and deleting personal data

- 0.0 This Section is subject to any data retention policies and procedures, which are designed to help ensure that our records, with any legal obligations to retain or the retention and deletion of personal data.
- 0.0 Personal data that we process for any purpose in compliance with the law for longer than is necessary for that purpose is anonymized.
- 0.0 We will retain your personal data as follows:
- (a) Documents that will be retained for a minimum period of 6 years following the date of the most recent contract between you and us, and for a maximum period of 10 years following that date;
 - (b) Documents that will be retained for a minimum period of 6 years following the date of closure of the relevant account, and for a maximum period of 10 years following that date;
 - (c) Training data that will be retained for a minimum period of 6 years following the date of its creation, and for a maximum period of 10 years following that date;
 - (d) Documents and data will be retained for a minimum period of 6 years following the date of the communication in question, and for a maximum period of 10 years following that date;
 - (e) Usage data will be retained for 10 years following the date of collection.

- 4.8 Notwithstanding the other provisions of this booklet, we may obtain your personal data where such collection is necessary for compliance with a legal obligation to which we are subject, or to [to protect our vital interests](#) or the interests of another natural person.

7. Your rights

- Your principal rights under data protection law are:
- (a) **the right to access** - you can ask the holder of your personal data
 - (b) **the right to rectification** - you can ask to be notified if someone has processed your data and to complete or rectify your personal data
 - (c) **the right to erasure** - you can ask to be removed from personal data
 - (d) **the right to object to processing** - you can object to the processing of your personal data
 - (e) **the right to restriction in a representative authority** - you can complete about the processing of your personal data and
 - (f) **the right to withdraw consent** - in the subject that through it is the processing of your personal data is consented, you can withdraw that consent

- 1.1 You may exercise any of your rights in relation to your personal data by writing to us or, using the contact details set out below.

I. Amendments

- 0.1 We may update this notice from time to time by publishing new notices on our website.
- 0.2 You should check this page occasionally to ensure you are kept up to date with any changes to this notice.
- 0.3 We (and/or our staff) notify you of (relevant) significant changes to this notice by email.

9. Our details

- [illegible]

10. Information Officer details: r.dippenaar@mweb.co.za

STATEMENT OF CONSENT TO DATA PROCESSING

1. I, Dr. R. Dippenaar, hereby grant Dr. R. Dippenaar permission to process my personal data for the purpose of specified in the aforementioned privacy notice terms and which is attached to this declaration.
2. I am aware that I may withdraw my consent at any time by using the Data Subject Consent Withdrawal Form, which may be obtained from Dr. R. Dippenaar

Parent / Legal Guardian name.....

Signed:

Date:

Protection of Private information Act POPI act

Journal Club December 2021 - Bombshell

MZ Miller & Zois
ATTORNEYS AT LAW



Our Team

Product Defects

Dang

Home > Personal Injury > Products Liability > Formula NEC Law

Baby Formula NEC Lawsuit

Our lawyers are pursuing **Enfamil** and **Similac** baby formulas who suffered necrotizing enterocolitis (NEC) in evidence that cow milk in these formulas contributes developing NEC.

The basis for these baby formula lawsuits is that research is associated with NEC and the manufacturers of Similac and Enfamil are aware of the risks.

Our attorneys last updated this page on **November 11, 2022** with the latest NEC formula lawsuit updates.

November 11, 2022 Update: Eight infant formula lawsuits have already been selected to trial. Another four NEC lawsuits will be selected by the defendants by the end of the month.



HOME

MEET OUR TEAM

CASES

REAL TRIAL LAWYERS

GET A FREE CASE EVALUATION

FREE CASE EVALUATION
NO WIN NO FEE GUARANTEE

PRACTICE AREAS

BRAIN INJURY

CAR ACCIDENTS

CONSTRUCTION ACCIDENTS

Gomez Trial Attorneys

BABY FORMULA

INFANT FORMULA

When a family well for the promise of wrought with stress or need extra nutrients such as low blood time, and often on Miller & Zois works firms on these claim contacted by an affi

Mass Tort Lawyers » Baby Formula Lawsuit 2022

Updated October 7, 2022

Baby Formula Lawsuits Against Similac & Enfamil



Preterm infants fed cow's milk-based baby formulas by [Similac](#) or [Enfamil](#) are more likely to develop necrotizing enterocolitis (NEC), a serious gastrointestinal illness that occurs mostly in premature babies.

Shouse Law Group is helping parents bring claims against the manufacturers [Abbott](#) and

~~PRIVATE & CONFIDENTIAL~~

Dr R Dippenaar
P O Box 15577
Panorama
7606

edippenaar@rtrweb.co.za

WILLIAM R. HOPKINS

CUR REF:
AA/0000073491

DATE:
27 January 2022

Dear Dr. Dippel:

YOURSELF / ADVICE RE NECROTISING ENTEROCOLITIS

1. We refer to the above matter and your request for advice regarding whether specific, written consent from the parent for formula milk feeding babies, who are admitted to NICU, would legally be advisable and/or necessary given the link apparent between formula feeding and necrotising enterocolitis in premature babies.
2. We are further requested to provide advice on whether nutrition, as opposed to a medication prescription would attract the same level of legal scrutiny when attempting to document and demonstrate informed consent.
3. In furnishing our advice, we have had regard to the National Health Act ("NHA"), the HPCSA Guidelines on informed consent, literature and case law.
4. The legal requirements for informed consent in South Africa are set out in sections 6, 7 and 8 of the NHA. As you will appreciate, it is common cause that before a healthcare practitioner provides healthcare services to a child under the age of 12, the parent or guardian must give his or her informed consent. Therefore, the parent acts on behalf of the child and makes decisions concerning their medical intervention/treatment. Informed consent requires the parent to fully appreciate the nature and extent of the harm or risk inherent in any medical intervention/treatment concerning the child. The NHA, sets out the nature and scope of the information that should be disclosed to the parent, that it should be done in a language that the parent understands, taking into account the parent's level of literacy. The NHA provides for rights to self-determination that protects every person's right to bodily and psychological integrity and the right to security and control over their body as enshrined in section 12 of the Constitution.

Downloaded from <http://ajphaphysoc.org/> at University of California, San Diego on June 11, 2015

Your strategic partner at law

[illegible]

M P S w a s a s k e d ...

Should we be getting written consent for the use of milk formulae for premature infants as necrotizing enterocolitis is very common complication in this group of patients

Are we covered in that it falls under the non medication group of nutrition ?



“..... ethical duty on a healthcare practitioner to ensure she or he practices under circumstances where the patients’ health and safety is not endangered

*In conclusion, you cannot be expected to inform parents of every risk,however, you should inform parents of risks, ... there is a **duty on you to inform the patients and obtain specific informed consent**"*

Happy success story !

New Approaches & New
Technology





- Ventilatory strategies appears to be **returning to full circle**
- The principles we have **learnt from Invasive ventilation** are now increasingly being adapted to **non invasive ventilation** as our understanding of lung development , physiology and impacting variables evolves
- Most importantly technology is being developed with these principles in mind as opposed to adapted technology to prematurity ie adult ventilators to premature infants with immature lung development and physiology





LUNG

Alveolar development is a casualty of premature birth further impacted by steroids and even air breathing COST BENEFIT payoff

The diagram illustrates the timeline of lung development from 2 to 38 weeks. It is divided into two main periods: the embryonic period (2-8 weeks) and the fetal period (9-38 weeks). The development is further categorized into five stages: embryonic, pseudoglandular, canalicular, saccular, and alveolar. A red arrow indicates the onset of surfactant production, which begins around 24 weeks and increases significantly towards birth at 38 weeks. A list of key events is provided for each stage, and a table at the bottom summarizes the overall processes of organogenesis and differentiation.

Weeks	Embryonic Period (2-8 weeks)	Fetal Period (9-38 weeks)
2	Formation of major airways	
4	Formation of bronchial tree and portions of respiratory parenchyma	
6	Birth of the acinus	
8		Formation of the acinus
10		Formation of the acinus
12		Formation of the acinus
14		Formation of the acinus
16		Formation of the acinus
18		Formation of the acinus
20		Formation of the acinus
22		Formation of the acinus
24		Formation of the acinus
26		Formation of the acinus
28		Formation of the acinus
30		Formation of the acinus
32		Formation of the acinus
34		Formation of the acinus
36		Formation of the acinus
38		Formation of the acinus

Key Events:

- Formation of major airways
- Formation of bronchial tree and portions of respiratory parenchyma
- Birth of the acinus
- Last generations of the lung periphery formed
- Epithelial differentiation
- Air-blood barrier formed
- Expansion of air spaces
- Surfactant detectable in amniotic fluid
- Secondary septation

Stages of Development:

- Embryonic
- Pseudoglandular
- Canalicular
- Saccular
- Alveolar

Processes:

- Organogenesis
- Differentiation

EXTREMELY PRETERM NEONATE

LUNG

Glucocorticoid **delays** capillary maturation produces transient alveolar wall thinning of Type I alveolar cell

Glucocorticoids **enhances** the expression of elastin allowing alveolargenesis to the periphery of the lung

Glucocorticoids **differentially** alter proliferation of platelet-derived growth factor receptor - progenitor state and preadipocytes and myoblasts can assume either a lipid-storage or muscle-like phenotype

Glucocorticoids **alter** proliferation & secondary septation of alveolar development - reversibility is important

Glucocorticoids **increase** no of Type II alveolar cell at the **cost** of Type I

And yet there are still Obstetricians who believe there is no scientific benefit for the use of antenatal steroids in the peri-viable infant OR that steroid matured infant is 24 hrs after administration

EXTREMELY PRETERM NEONATE

LUNG *cont'd*

Other considerations

Phospholipid stores are insufficient , recycling of phospholipid inefficient , lamellar bodies transport impaired

Transepithelial transport cells (**eNaC arginine vasopressin**) limited Type II - **still in the fluid efflux into the pulmonary system** , however absorption can be induced by terbutaline inhalation

Clara cells 3rd type of cell in alveolus - inflammatory, immunomodulatory, and airway repairing roles

Pulmonary neuroendocrine cells stimulate mitosis and branching

Interalveolar Lymphatic branching delayed – fluid balance critical - **VERY EASY TO “DROWN”** a microprem

EXTREMELY PRETERM NEONATE

This Technology Is Coming



Paradigm shift toward dealing with a multivariable cellular approach

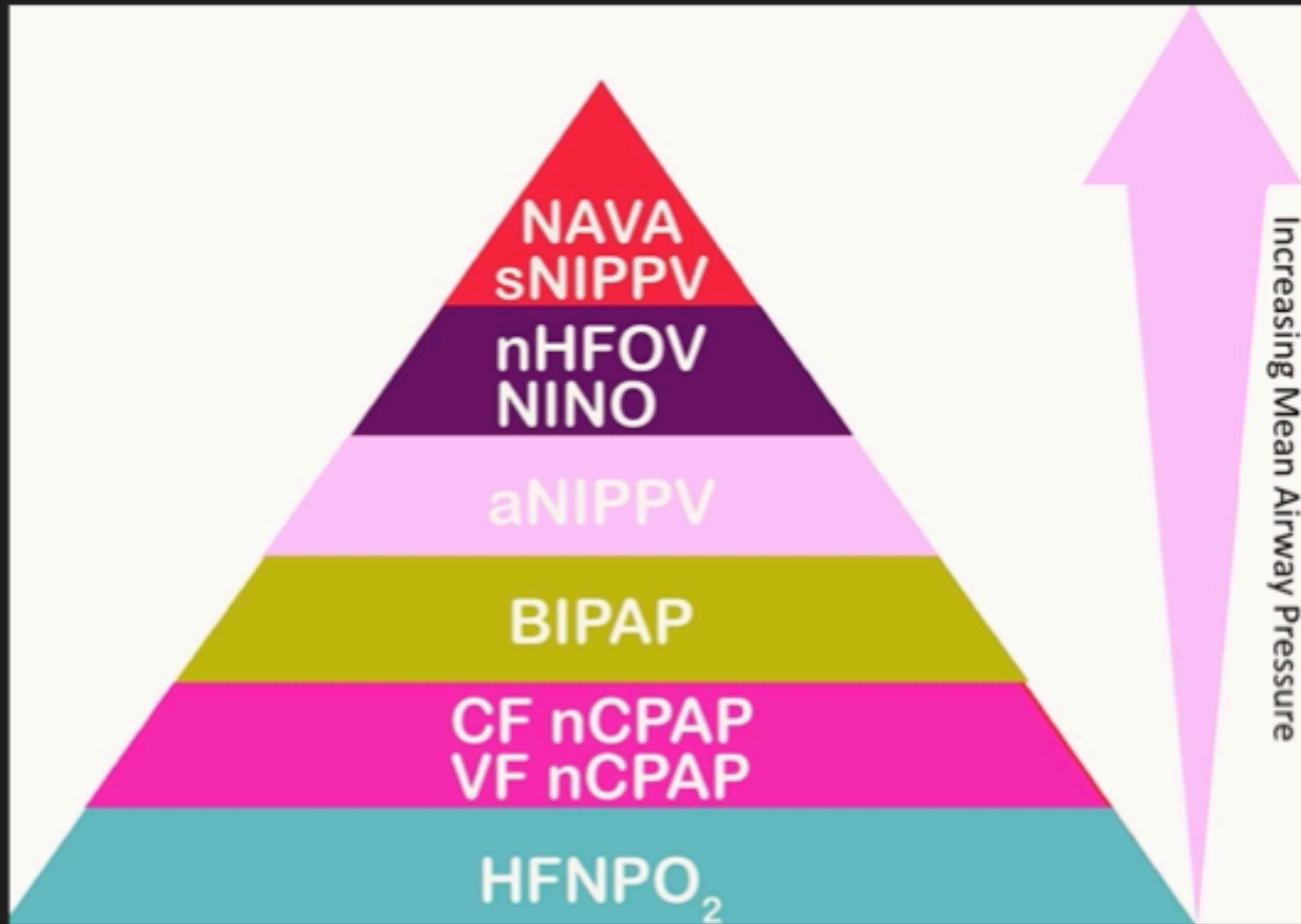
Ventilatory strategies are now focusing not only on the aberrant divisions which predispose peri-viable infants to ventilator induced lung injury namely, **barotrauma**, **volutrauma**, **atelectotrauma**, **biotrauma** & **rheotrauma** but more importantly **vortex flow vs terminal flow** and type of ventilators such as oscillators

Taking on these babies is a well oiled machine of predetermined choreographed strategies with an algorithm of interventions based on anticipated course matched to technological constraints

These babies you push them in the right direction you never force them . Things go wrong quickly but you correct them slowly
But... It starts well before the baby is born

New Approaches & New Technology

Non invasive nasal oscillation make breathing simple



Practically does NINO work ?

- Absolutely,
 - Asynchronous
 - right baby right initial setting
 - simple quick easy interface change
- Baby comfortable
- If the nursing Staff are happy general you doing something right



Parental consent was provided by the family for use of images for teaching purposes

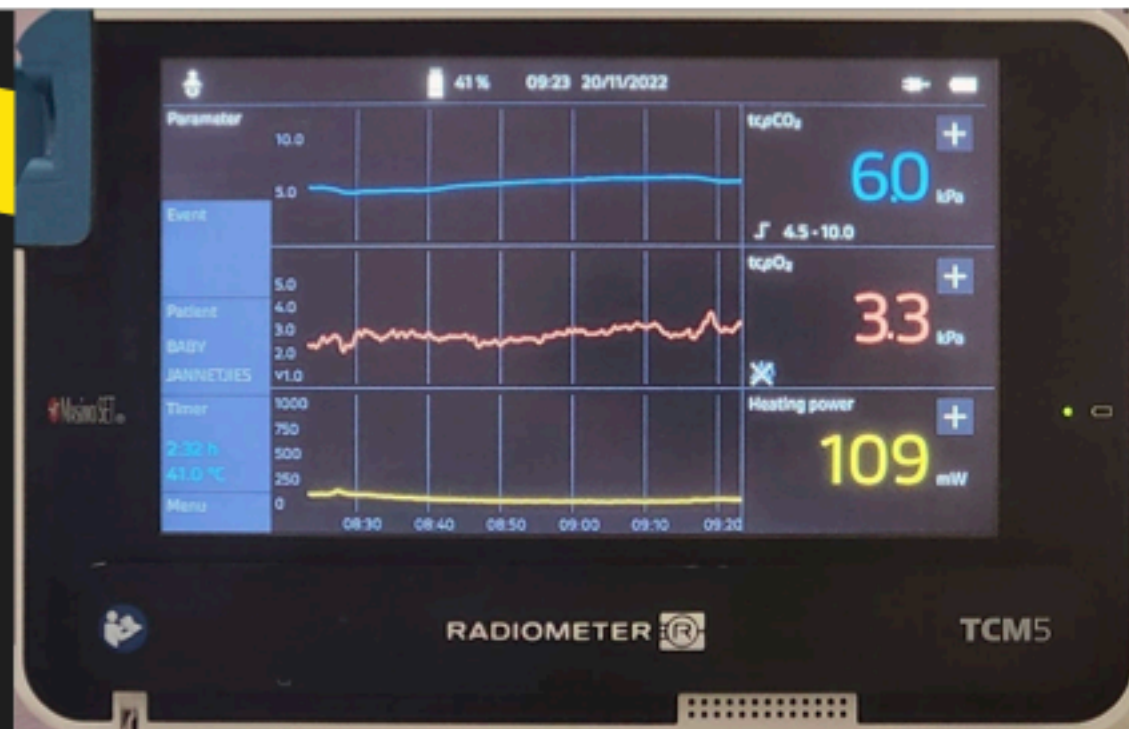
Setting Recommendations

	Yoder 2016	De Luca 2016	Shi 2020 (Ram)	De Luca 2021 ELBW BPD grp
Frequency	6-10 Hz (8 Sensormedics)	10-12 Hz	6-8 (10) Hz	8-12 Hz
MAP	Similar IMV/CPAP	8-10 cmH2O	Similar IMV Increase 2-3cmH2O higher CPAP	10-18 cmH2O
Amplitude	2x MAP	25-35	2x MAP 20-30 (max70)	30-55
I:E ratio	1:1 (1:2 Sensormedics)		1:1 (incr 1:2 gas trapping)	

TCO₂ monitor

transcutaneous CO₂ monitor

- Higher pressure Non invasive ventilation a necessity (nino)
- Profoundly reduced blood sampling
- Allows for proactive adjustments of ventilation setting – **REAL time**
- Reduces painful procedure
- Blood importantly Fetal Hb critical
- Transfusions are problematic
- Profound long term neuro developemenal outcome if tco2 low



Hero

heart rate variability monitor

- Cheap <R100 000 no consumables
- Not attached to infant
- Uses existing monitor data
- ??Medical aid will reimburse hospital to use it (Discovery GEMS)
- Predicts early sepsis , identifies pain , respiratory distress , convulsion IVH
- ONLY thing better than **REAL TIME** is **PREDICTIVE TIME**



REALITIES AND CHALLENGES IN SA

POCU

point of care ultrasound

No longer can you be reliant on waiting for the radiology department or cardiology for decision making in the NICU – **REAL TIME** decision making

The use of POCUS for a number of diagnostic and procedural applications is now universal

You need to develop the Skill Set – easily achievable

<https://www.nicupocus.com/index.html>

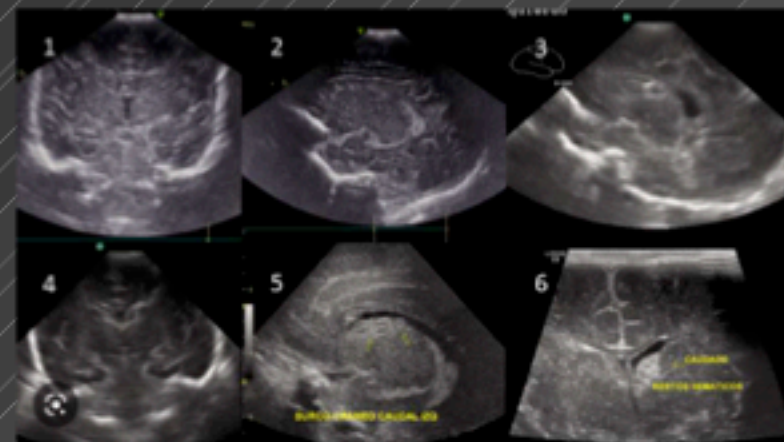


REALITIES AND CHALLENGES IN SA

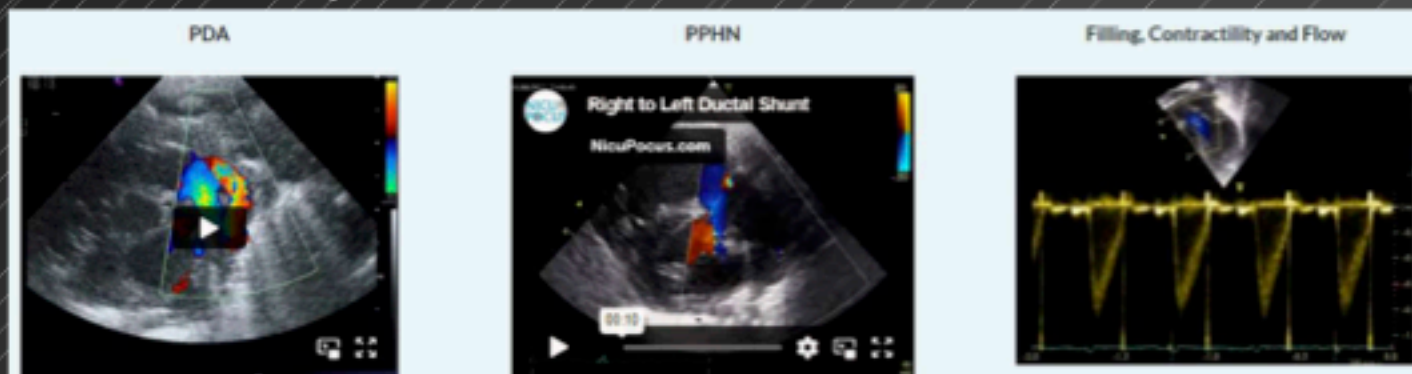
POCU

point of care ultrasound

Cranial ultrasound is fundamental and critical in the first 72 hrs of the extreme prem but useful for congenital anomalies congenital infection and acute neurological deterioration



Echocardiography for the assessment for neonate circulatory failure and haemodynamic

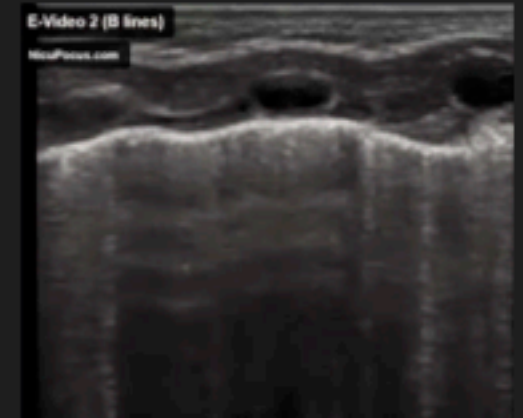
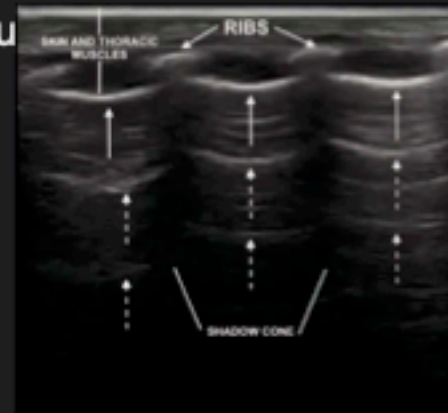


REALITIES AND CHALLENGES IN SA

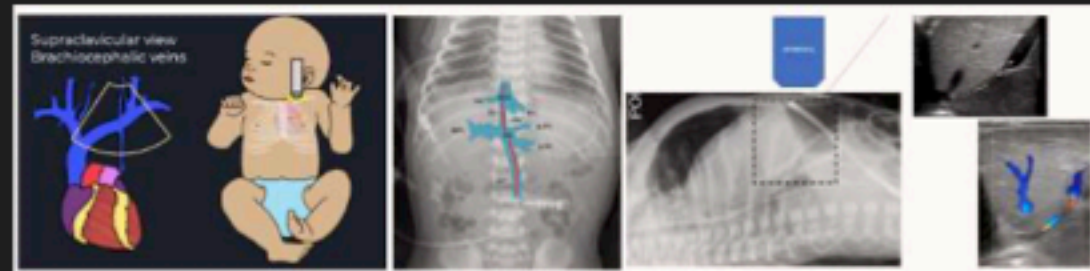
POCU

point of care ultrasound

Lung ultrasound should be the first imaging tool in the assessment of a neonate with respiratory distress. or with a sudden deterioration of respiratory status



Ultrasound guided umbilical venous line cannulation
and positions



REALITIES AND CHALLENGES IN SA

POCU

point of care ultrasound



Clarius HD3 Portable Ultrasound Machine

Meet the world's only 3rd generation portable ultrasound. Clarius HD3 delivers best-in-class handheld ultrasound for your specialty, with an easy-to-use app powered by artificial intelligence and connection to the cloud.

- ✓ High-definition ultrasound
- ✓ Easy-to-use app for iOS and Android
- ✓ Steadfast wireless connection
- ✓ Convenient cloud exam management
- ✓ Affordable pricing (financing available)



<https://www.neocardiolab.com/pocus/butterfly-iq-hand-held-ultrasound>





THE EXTREME PREM IN SA

New Challenges,
New Approaches & New Technology

Thank you





Paediatrics & Child Health, 2017, 334–341

doi: 10.1093/pch/pxx058

Position Statement

OXFORD

Position Statement

Counselling and management for anticipated extremely preterm birth

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