

# PREM 7

## 7 steps towards a safer premature birth



Find out more at: [southeastclinicalnetworks.nhs.uk/PREM7](https://southeastclinicalnetworks.nhs.uk/PREM7)

PREM 7 is in  
collaboration with

National Patient Safety  
Improvement Programmes

Maternity  
and Neonatal

Time	Item	Lead
13:30	Welcome	Dr Aung Soe Regional Neonatal Clinical Lead, NHS England & Improvement South East
13:35	An overview of National work and ambitions on Preterm Optimisation	Mr Tony Kelly National Clinical Advisor for National Maternity and Neonatal Safety Improvement Programme
13:50	Parents perspective of Preterm Optimisation	Vicky Fletcher
14:00	Perinatal Preterm Optimisation – Closing the lost in translation gap	Dr Sarah Bates Quality Lead for the British Association of Perinatal Medicine & PERIPrem Project Neonatal Operational Clinical Lead
14:15	How can the data help in implementation of PREM 7	Jacqui Bobby Data Analyst, TVW & KSS Neonatal Operational Delivery Networks
14:25	Close	Dr Aung Soe, Regional Neonatal Clinical Lead, NHS England & Improvement South East

#### STEP 1



**Right place of birth**  
All babies born in appropriate settings for their gestation

#### STEP 2



**Magnesium Sulphate**  
To be offered to all women before 30 weeks with imminent or planned birth

#### STEP 3



**Intrapartum Antibiotic Prophylaxis**  
To be offered to all women in established labour before 34 weeks

#### STEP 4



**Steroids**  
To be offered to all women before 34 weeks with threatened labour

#### STEP 5



**Optimal cord management**  
For all babies before 34 weeks

#### STEP 6



**Temperature**  
Normal temperature range (36.5-37.5°C) for all babies before 34 weeks

#### STEP 7



**Breast milk**  
Maternal breast milk to be received within 24 hours of birth for all babies before 34 weeks

- NHS LTP 2019 – Reduction in Neonatal deaths and Brain injury by 50% by 2025
- BAPM 2020
- Periprem 2020/21
- NNAP 2022
- AHSN (MatNeo SIP) 2022/23
- Ockenden 2022 (Essential action – >85% of <27 weeks births – with NICU)
- LMNS 2022/23 (Deliverables – >85% of <27 weeks births – with NICU)
- **Good Evidence to improve Clinical outcomes in Preterms**



# An overview of national work and ambitions on preterm optimisation *A national view*

Tony Kelly, National Clinical Advisor



@PTSafetyNHS / @MatNeoSIP

[www.england.nhs.uk](http://www.england.nhs.uk)

Delivered by:

**TheAHSN**Network

Led by:

**NHS England**

**Why?**

**What?**

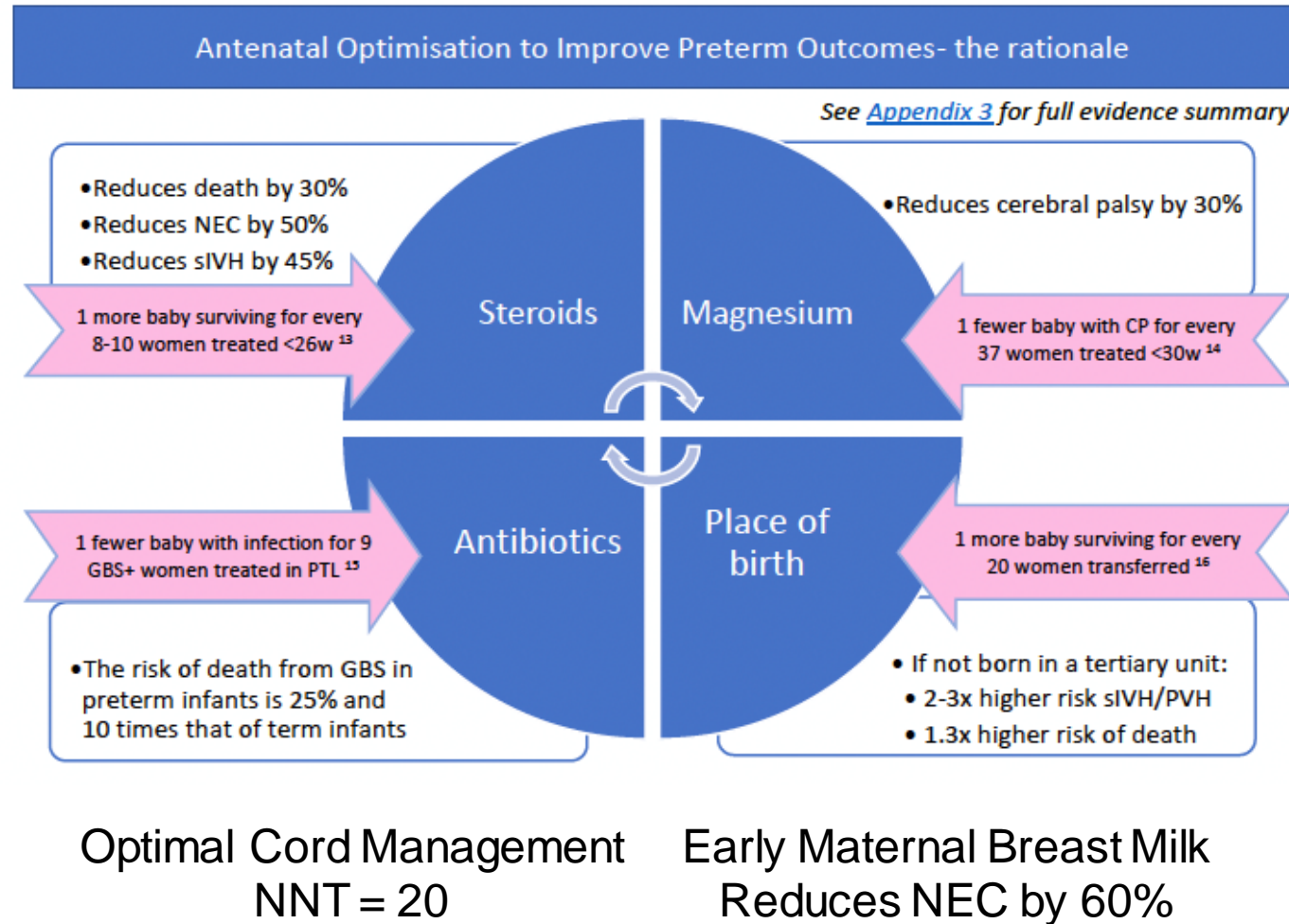
**How?**

**Why?**

**What?**

**How?**

# Why focus on preterm optimisation?



Why?

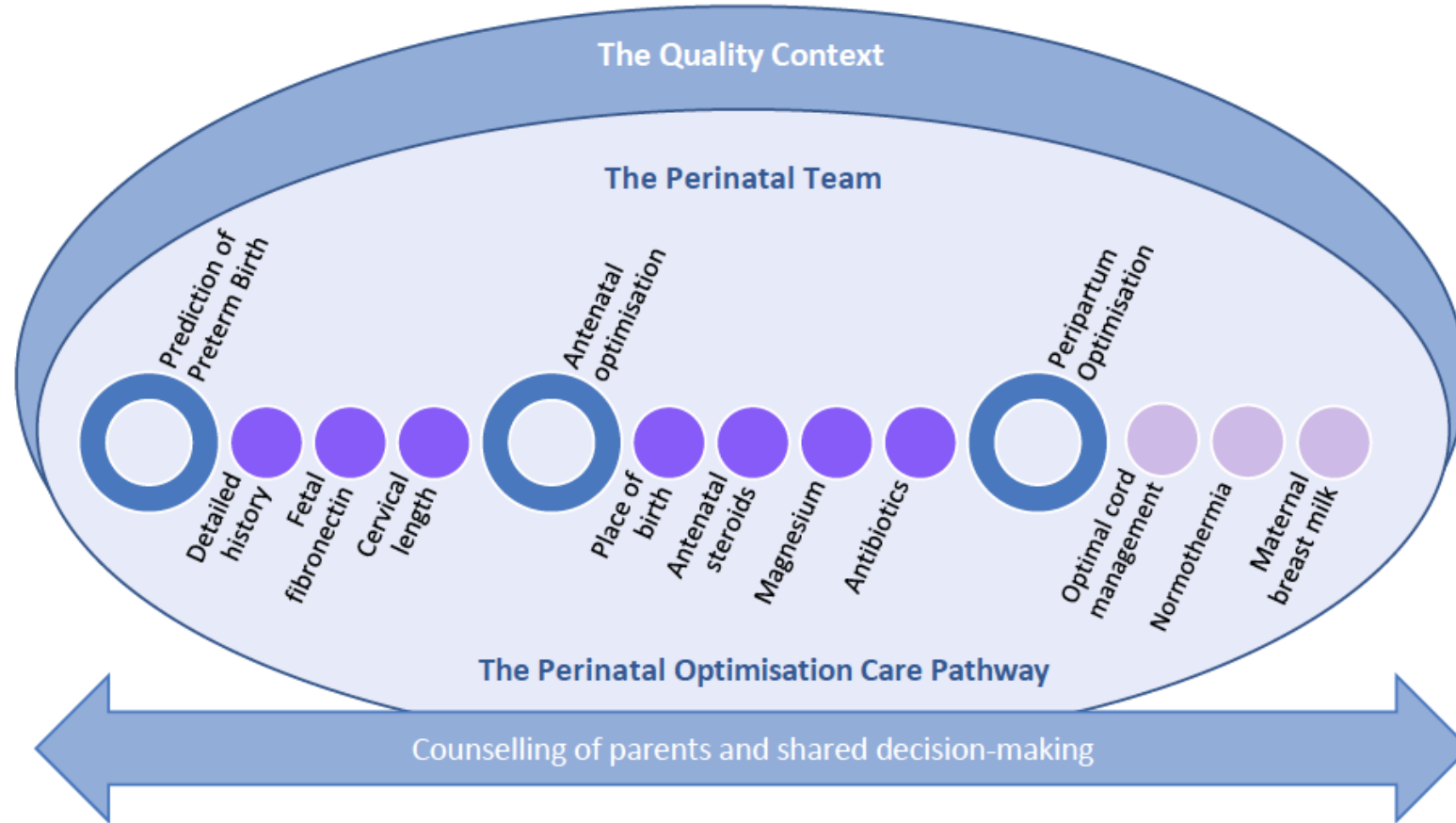
What?

How?

## What should the ideal perinatal preterm optimisation pathway look like?

- A woman and her baby should arrive at any department (regardless of the level of in-house neonatal support), where there is a comprehensive assessment of her risks of preterm birth.
- This is followed by a timely transfer to an appropriate unit, equipped to provide support for a baby of that gestation, where required.
- A neonatal cot is quickly identified, and transport is organised.
- Parallel to this, the woman is offered, depending on gestation, early interventions at the receiving hospital to optimise the condition of her baby prior to birth, and then transported to the correct location.
- At the time of delivery all the other relevant interventions are administered and there is a seamless transfer of the baby into a neonatal unit.

# What should the ideal perinatal preterm optimisation pathway look like?



# What should the ideal perinatal preterm optimisation pathway look like?

British Association of Perinatal Medicine



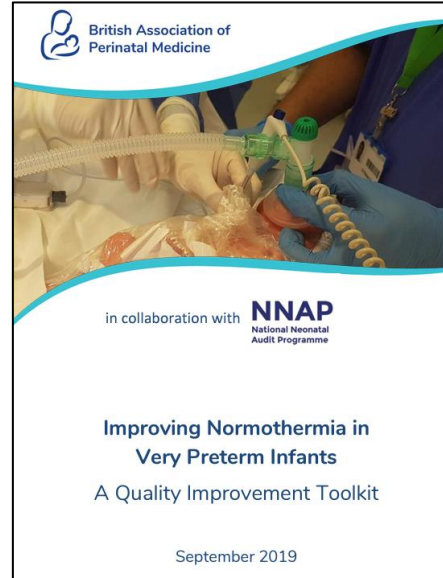
The cover features a collage of images: a yellow ambulance, a close-up of a baby's face, hands holding a baby, and a smiling woman. A circular stamp reads "Antenatal Optimisation STAMPED".

**Antenatal Optimisation**  
for Preterm Infants less than 34 weeks  
A Quality Improvement Toolkit

October 2020

in collaboration with **NNAP**  
National Neonatal Audit Programme

British Association of Perinatal Medicine



The cover shows a close-up of a newborn baby being cared for in a hospital setting, with medical equipment visible.

in collaboration with **NNAP**  
National Neonatal Audit Programme

**Improving Normothermia in Very Preterm Infants**  
A Quality Improvement Toolkit

September 2019

British Association of Perinatal Medicine



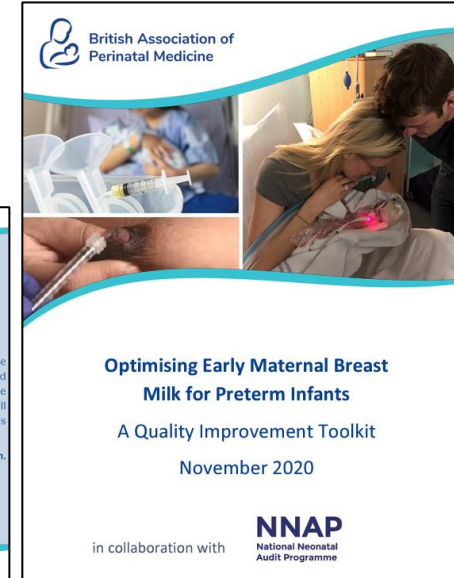
The cover features a silhouette of a fetus in a curled position, with a clock icon above it.

"During Lillie's birth, the doctors explained that they would be doing a delayed cord clamping but while doing this they would make her warm, safe and care for her during that time. They made sure I knew what was happening and I wasn't worried at all during that minute and Lillie was very happy! And I knew this would help with saving her life."  
*Amie, parent to Lillie, born at 28 weeks gestation.*

**Optimal Cord Management in Preterm Babies**  
A Quality Improvement Toolkit

December 2020

British Association of Perinatal Medicine






The cover shows a collage of images: a newborn baby, a woman breastfeeding, and a man looking at a baby.

**Optimising Early Maternal Breast Milk for Preterm Infants**  
A Quality Improvement Toolkit

November 2020

in collaboration with **NNAP**  
National Neonatal Audit Programme

# Preterm Perinatal Optimisation Care Pathway

	<p><b>Optimising Place of Birth</b></p> <p>Extreme preterm birth in a tertiary unit setting significantly improves survival and neurodevelopmental outcomes</p>	<p>Singleton infants less than 27 weeks gestational age, multiples less than 28 weeks gestational age and any gestation with an estimated fetal weight of less than 800g should be born in a maternity service on the same site as a neonatal intensive care unit (NICU)</p>
	<p><b>Optimal Antenatal Steroids</b></p> <p>Optimal antenatal steroids significantly improve survival (by 40%), reduce the risk of severe IVH (by 45%) and the risk of chronic lung disease and necrotising enterocolitis</p>	<p>All women giving birth at less than 34 weeks of gestation, should receive a full course of antenatal corticosteroids within 1 week prior to birth</p>
	<p><b>Magnesium Sulphate</b></p> <p>Use of Magnesium Sulphate before preterm delivery reduces the risk of cerebral palsy by 30%</p>	<p>All women giving birth at less than 30 weeks of gestation, should receive magnesium sulphate within the 24 hours prior to birth</p>
	<p><b>Intrapartum Antibiotics</b></p> <p>The use of antibiotics 4 hours before birth significantly improves survival outcomes by reducing the risk of Group B Streptococcus sepsis</p>	<p>All women in preterm labour at less than 34 weeks of gestation should receive intravenous intrapartum antibiotic prophylaxis to prevent early onset neonatal Group B Streptococcal (GBS) infection irrespective of whether they have ruptured membranes</p>
	<p><b>Optimal Cord Management</b></p> <p>Optimal cord management (waiting at least 60 seconds after birth before clamping the umbilical cord) significantly improves survival by 30%</p>	<p>Babies born at less than 34 weeks gestational age should have their umbilical cord clamped at or after one minute after birth</p>
	<p><b>Normothermia</b></p> <p>Early hypothermia (&lt;36.5°C) increases the risk of mortality &amp; brain haemorrhage, NEC &amp; sepsis. Emerging evidence links early hyperthermia (&gt;38°C) to adverse outcomes</p>	<p>Babies born at less than 34 weeks gestational age should have a first temperature which is both between 36.5–37.5°C and measured within one hour of birth</p>
	<p><b>Early Maternal Breast Milk</b></p> <p>MBM reduces the risk of retinopathy of prematurity, chronic lung disease and necrotising enterocolitis; and can improve long term neurodevelopmental outcomes</p>	<p>Babies born below 34 weeks gestational age should receive their own mother's milk, ideally within 6 hours, but aiming always 24 hours of birth</p>

## What are the advantages of a pathway approach?

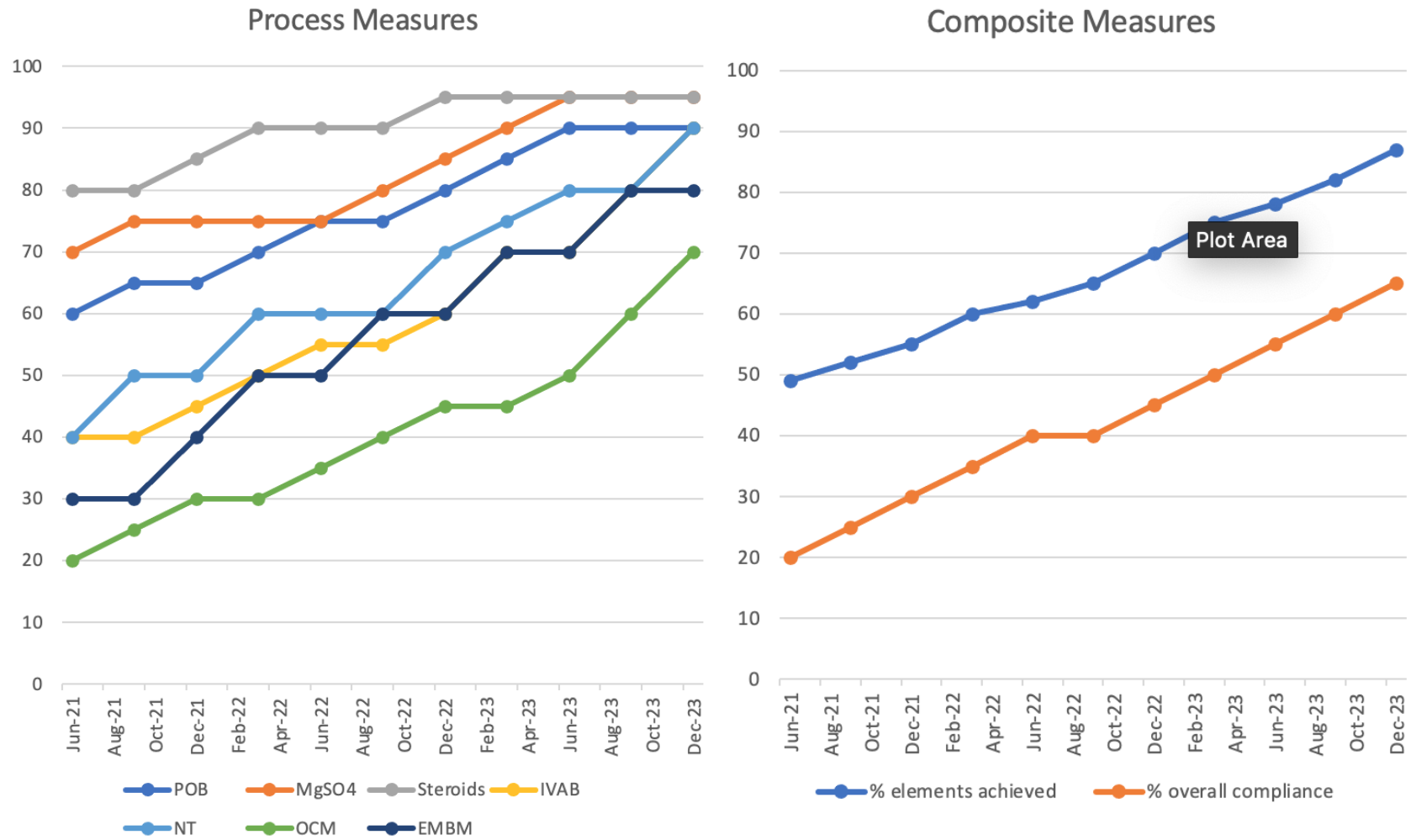
- By adopting a pathway approach we believe this will lead to a more systematic way of delivering all key interventions
- More learning can be collected by looking at the delivery of interventions in its entirety
- Pathway focuses on the detail at system level augmenting the processes to support the effective delivery of the 7 interventions
- Enables MDT (Perinatal) discussions to look at improvement across the system
- Likely additive benefit on outcomes

Why?

What?

How?

# How can we support you with this work?



# How can we support you with this work?



**Tommy's**  
National Centre for  
Maternity Improvement



Can you solve this on your own?



## Parents perspective of Preterm Optimisation

Vicky Fletcher

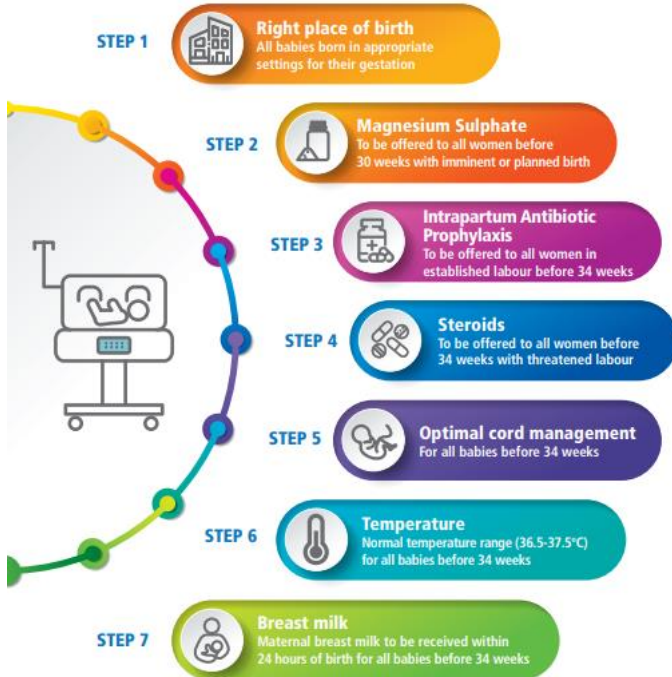
- STEP 1**  
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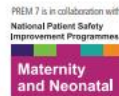
# Perinatal Preterm Optimisation – Closing the lost in translation gap

## PREM 7

7 steps towards a safer premature birth



Find out more at:  
[southeastclinicalnetworks.nhs.uk/PREM7](https://southeastclinicalnetworks.nhs.uk/PREM7)



Dr Sarah Bates

Neonatal Consultant, Great Western Hospital,  
Swindon

National Quality Lead, British Association  
Perinatal Medicine

PERIPrem Project Operational

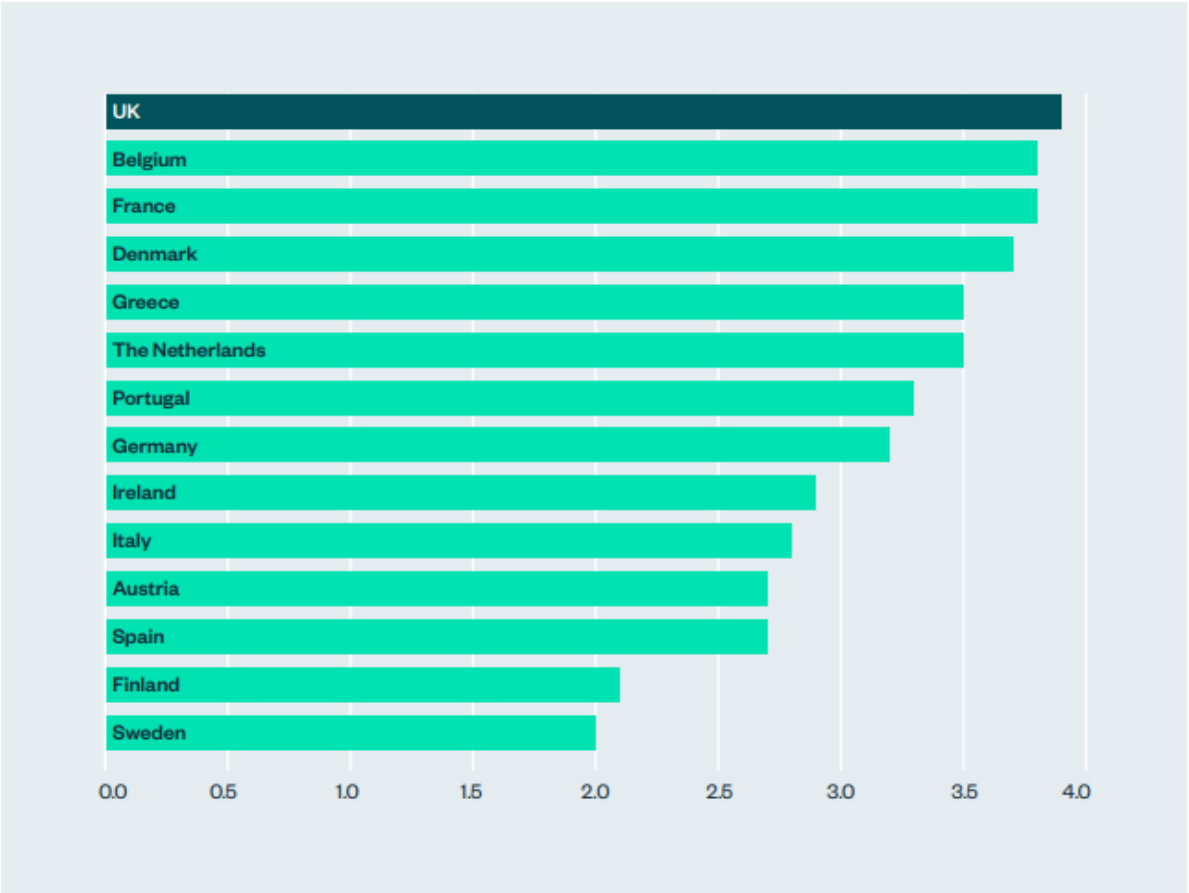
# Preterm Perinatal Optimisation

Why Prem7?

What are the barriers to closing the lost in translation gap?

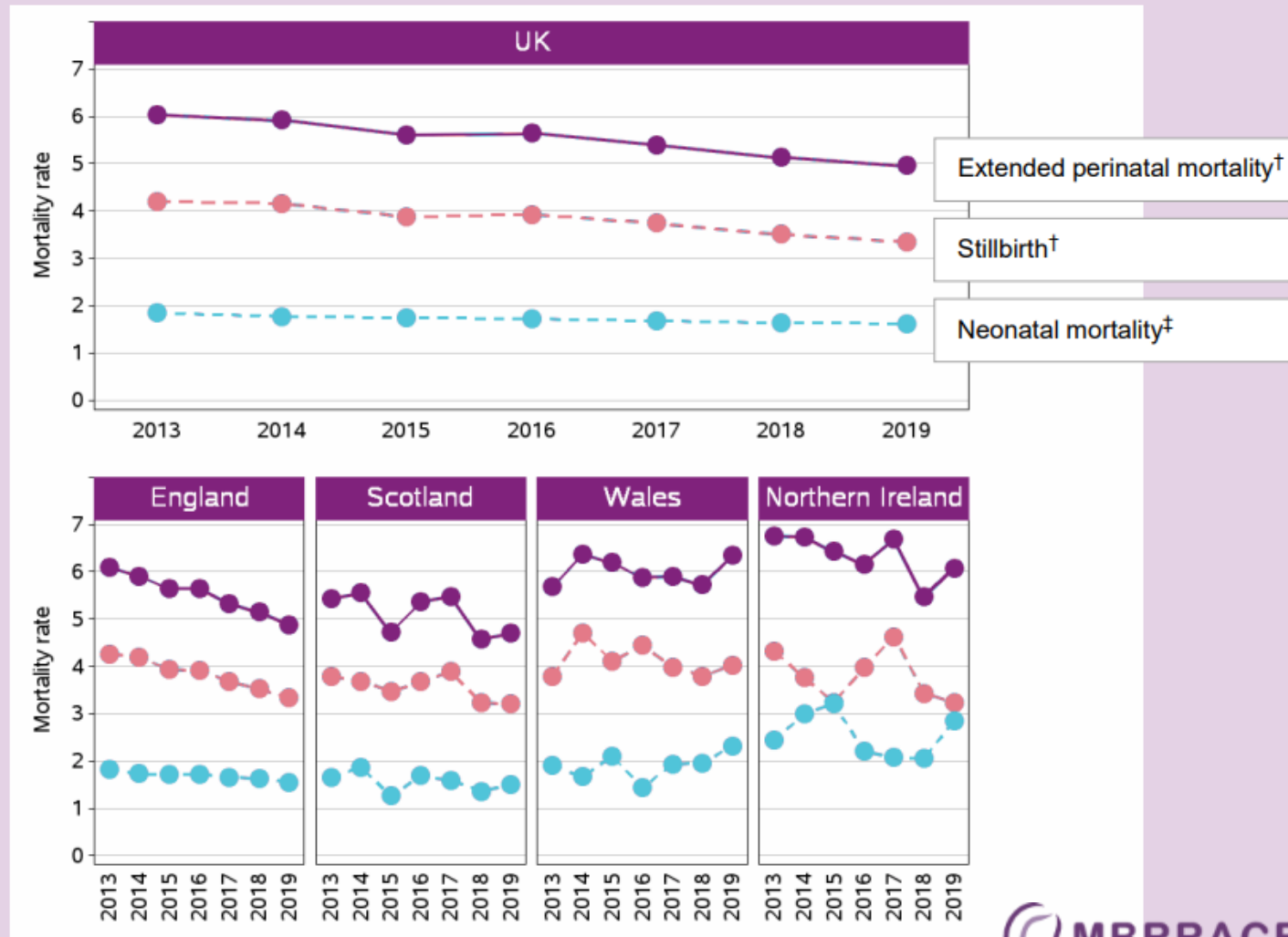
Top tips for improvement

**Figure 3:** International comparisons of infant mortality rate per 1,000 live births, 2018. *Source: Eurostat 2021.*



**UK has the highest infant mortality rate in Western Europe**

**Figure 1: Stillbirth, neonatal, and extended perinatal mortality rates for the UK and by country of residence: United Kingdom, for births from 2013 to 2019**



† per 1,000 total births

‡ per 1,000 live births

Excluding terminations of pregnancy and births <24<sup>+0</sup> weeks gestational age

During the period, Scotland reported different legislation in Northern Ireland for the termination of pregnancy

# Number of infant death notifications received by CDOPs by gestational age at birth in weeks and age group at death, year ending 31 March 2020 (NCMD England)

Gestational age at birth (weeks <sup>12/13</sup> )	Number (%) of deaths		
	0 – 27 days	28 – 364 days	Under 1 year
<22	183 (14%)	*	183 (10%)
22 <sup>10</sup> -23 <sup>18</sup>	250 (19%)	26 (5%)	276 (15%)
24 <sup>10</sup> -27 <sup>10</sup>	263 (20%)	70 (14%)	333 (19%)
28 <sup>10</sup> -36 <sup>10</sup>	303 (23%)	143 (29%)	446 (25%)
37 <sup>10</sup> -41 <sup>16</sup>	297 (23%)	243 (50%)	540 (30%)
≥42	5 (<1%)	5 (1%)	10 (1%)
<b>Total</b>	<b>1,301 (100%)</b>	<b>487 (100%)</b>	<b>1,788 (100%)</b>

Data source: NCMD  
 In 54 cases (0-27 days) and 260 cases (28-364 days), data for the child's gestational age were not known or incomplete  
 Data only presented for deaths of infants (<1 year)  
 Percentages may not sum to total due to rounding  
 \* denotes that a figure has been suppressed due to small numbers (less than 5, including zero)



Of all deaths categorised as Perinatal / Neonatal event, 77% were prematurity related, prematurity accounted for 24% of ALL child deaths reviewed.

## Child deaths (England): Prematurity

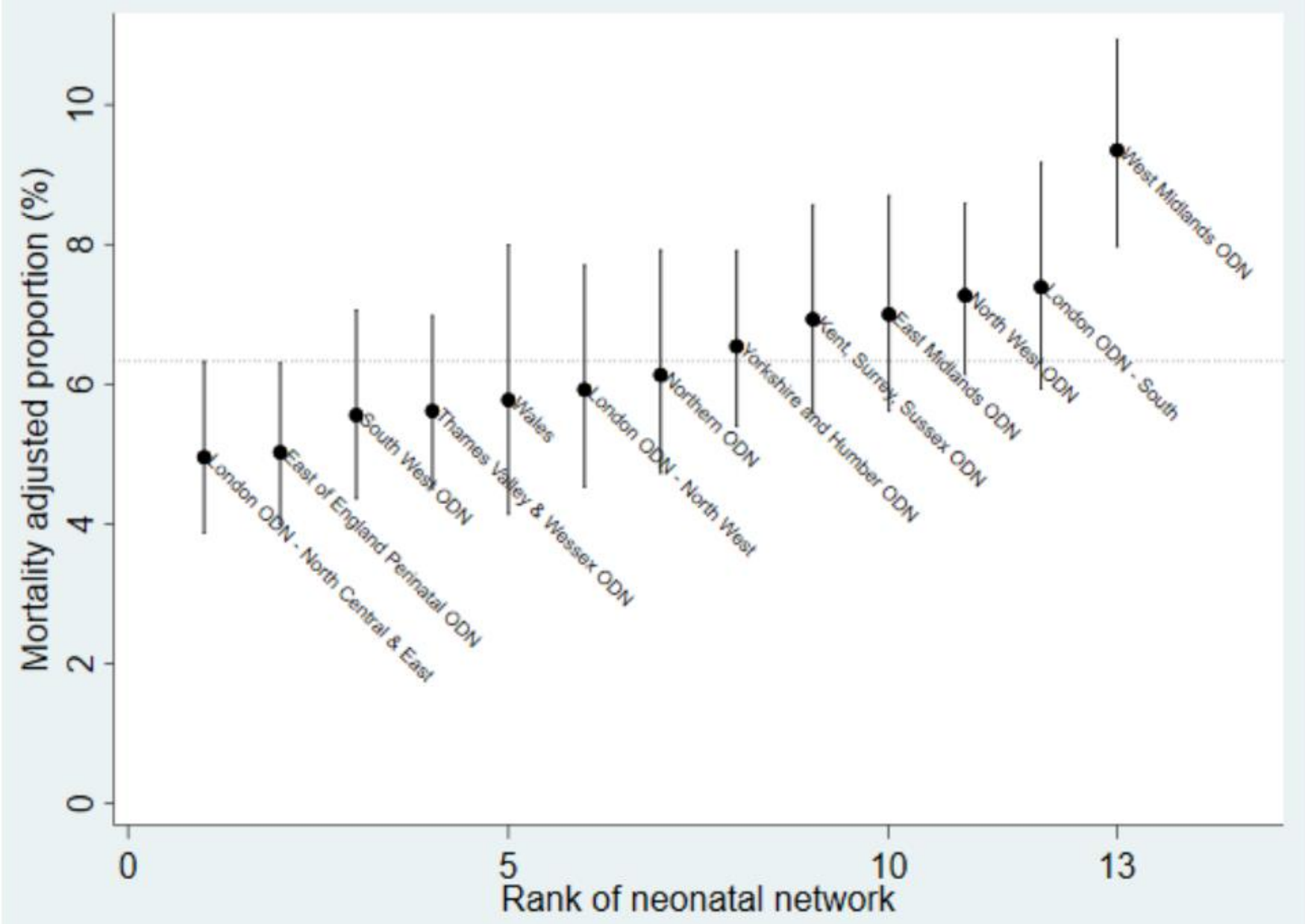
1 Apr 2019 to 31 March 2020

**NCMD**  
National Child Mortality Database

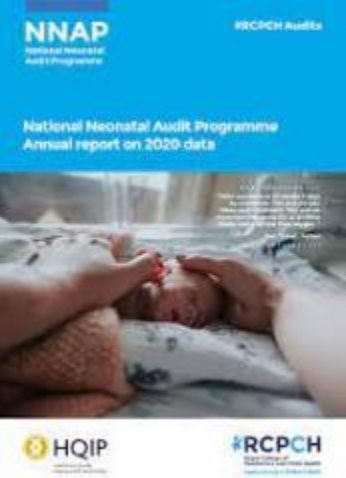
**69%** infant deaths (under 1 year old) are born preterm (before 37 weeks)



# Adjusted mortality for babies <32 weeks

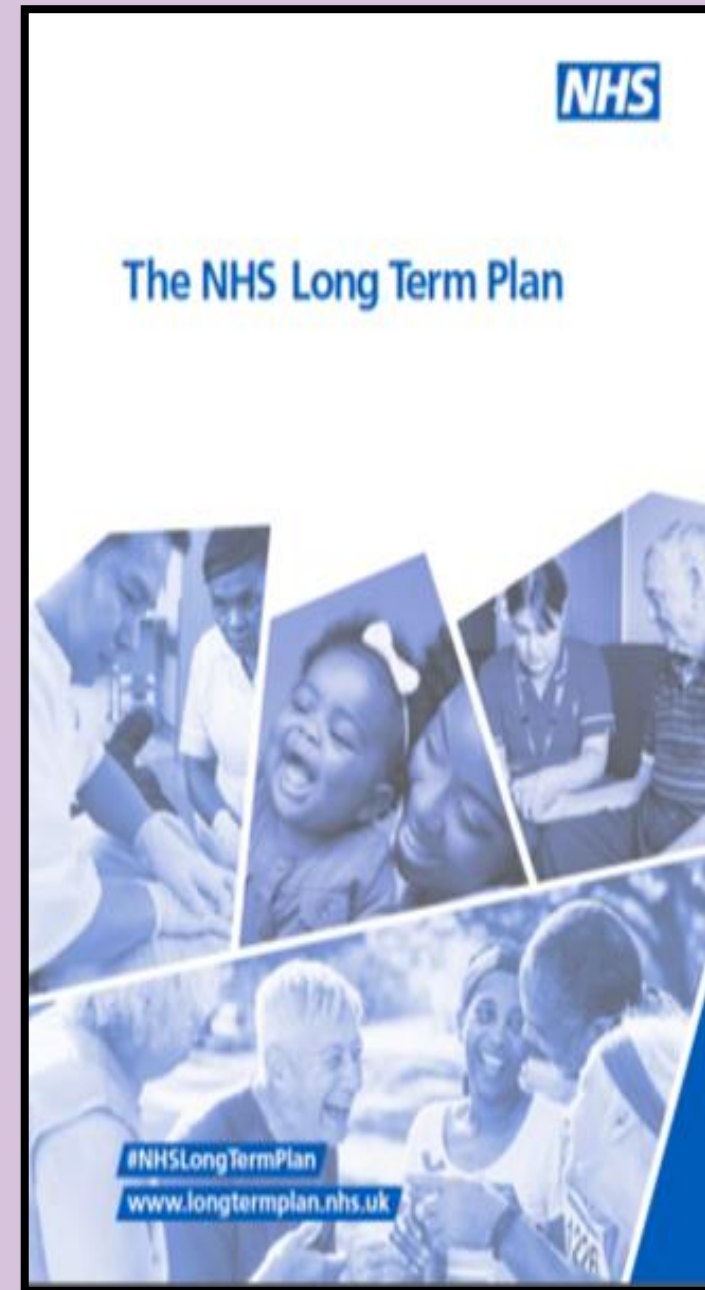


**NNAP**  
National Neonatal  
Audit Programme



# NHSE Policy

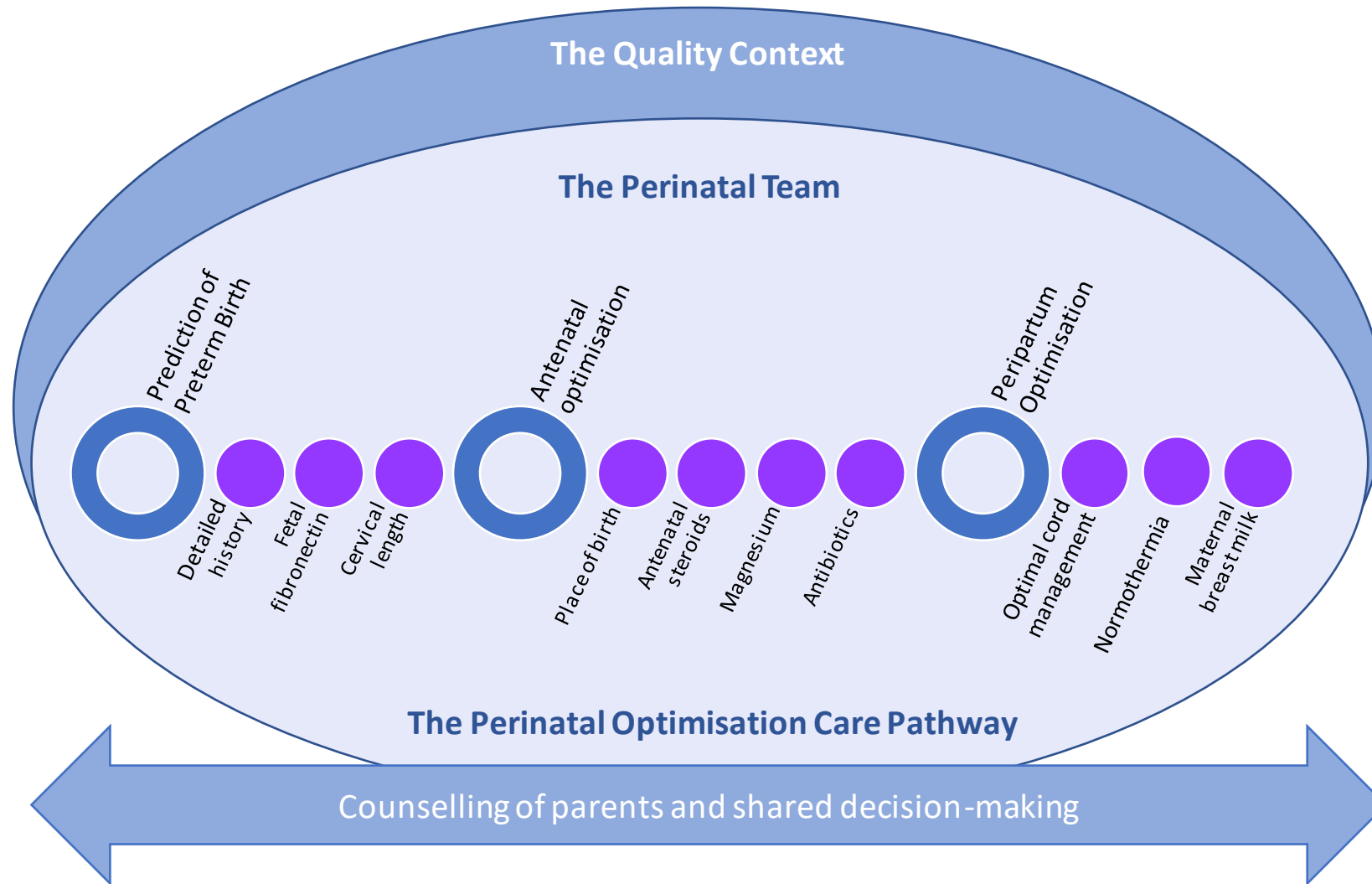
**To reduce  
newborn brain  
injury and  
death by 25%  
by 2020, and  
50% by 2025**





Lost in Translation... the gap  
between research and  
implementation...

# The Perinatal Optimisation Care Pathway



British Association of Perinatal Medicine

**Antenatal Optimisation**  
For Preterm Infants less than 34 weeks  
A Quality Improvement Toolkit

September 2020

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National Neonatal Audit Programme

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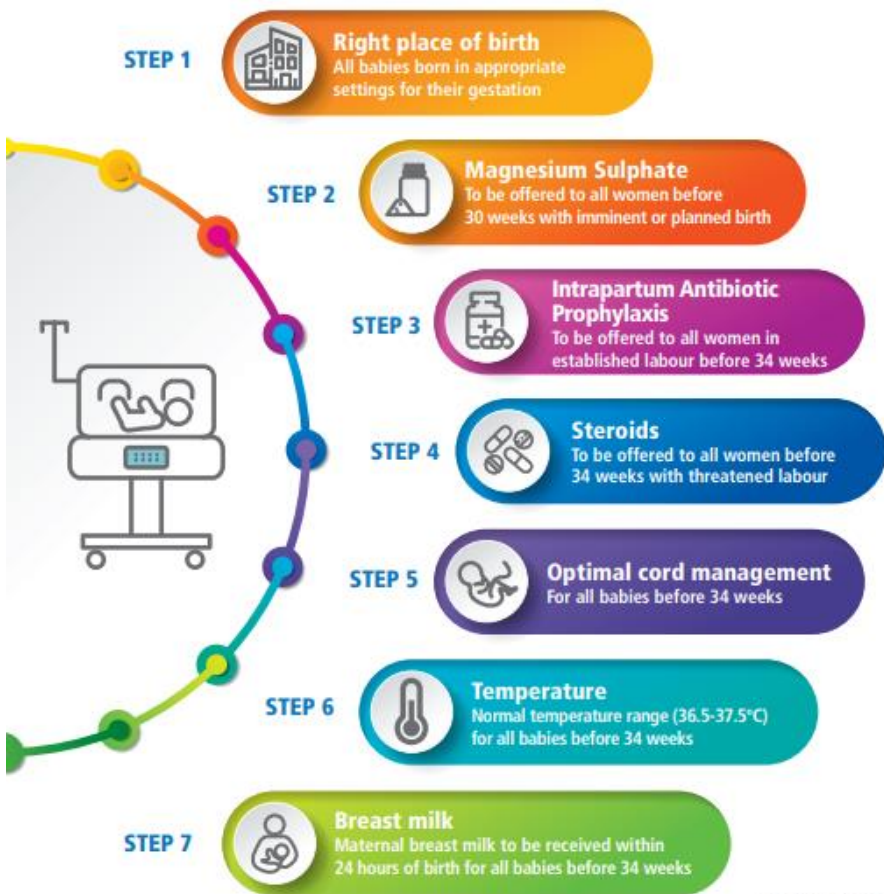
November 2020

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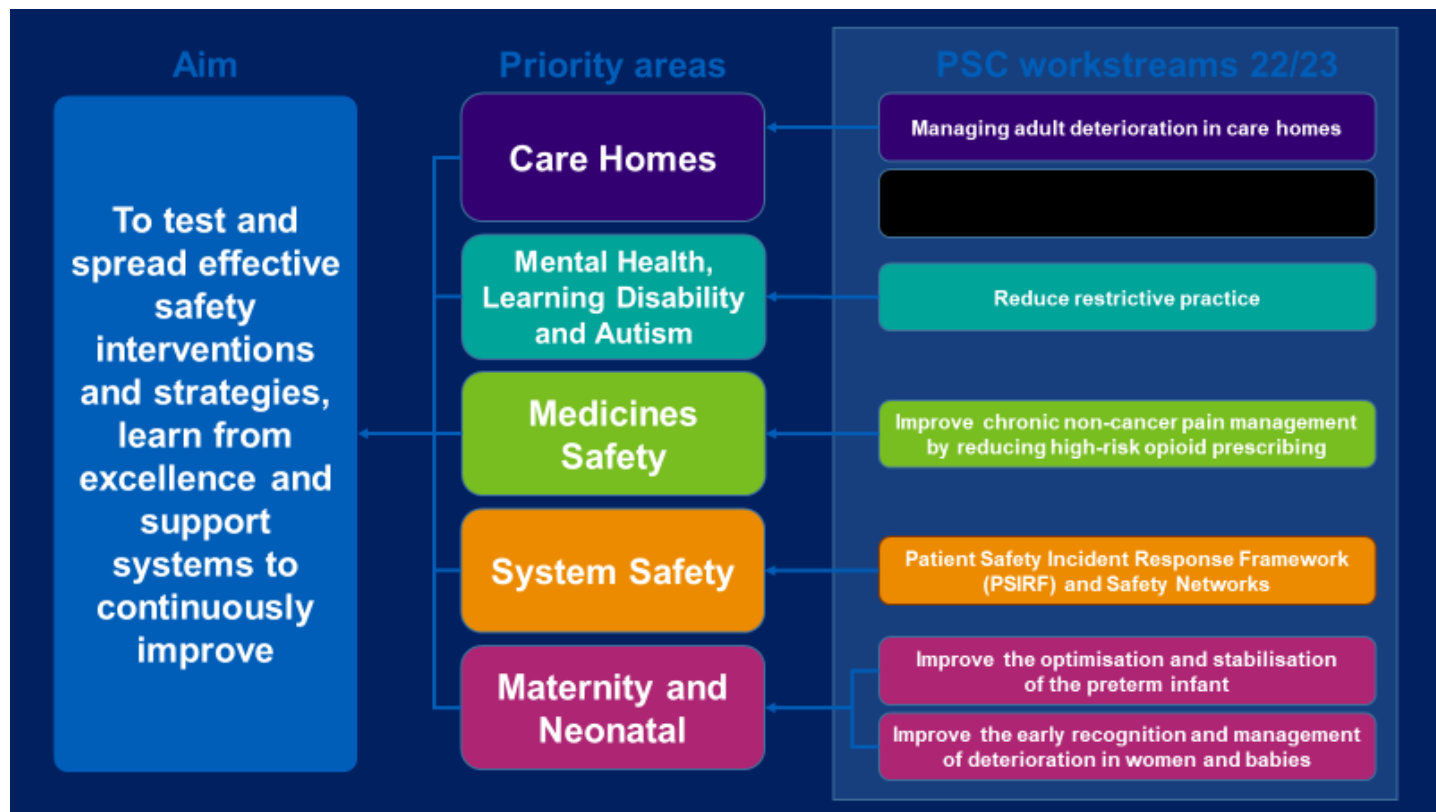
# PREM 7



## 7 steps towards a safer premature birth



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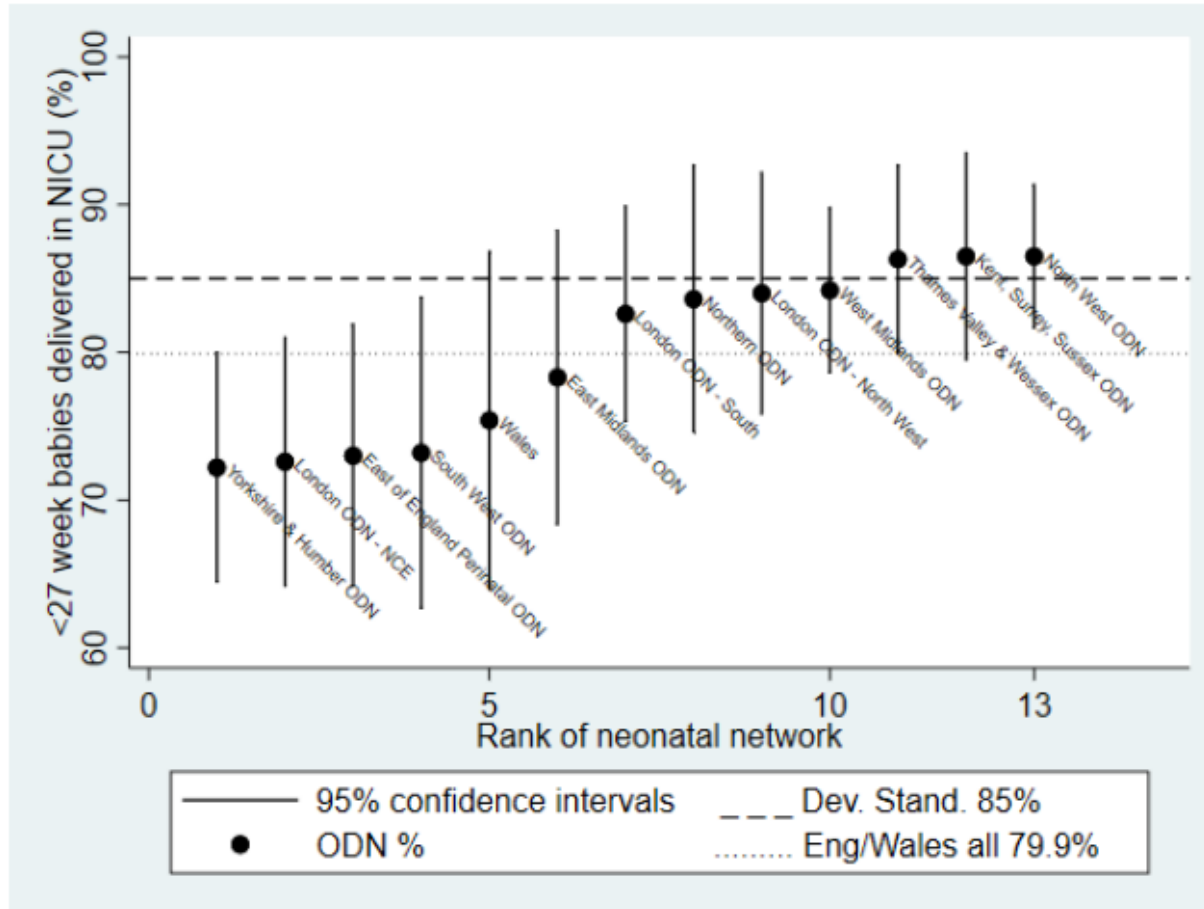


## STEP 1

 **Right place of birth**  
All babies born in appropriate settings for their gestation

**Figure 10. Caterpillar plot of the proportions of birth in a centre with a NICU, by neonatal network or operational delivery network (ODN).**

Network proportions are represented by dots. The 95% confidence intervals for a network are shown by a vertical line with each dot.



## PLACE OF BIRTH



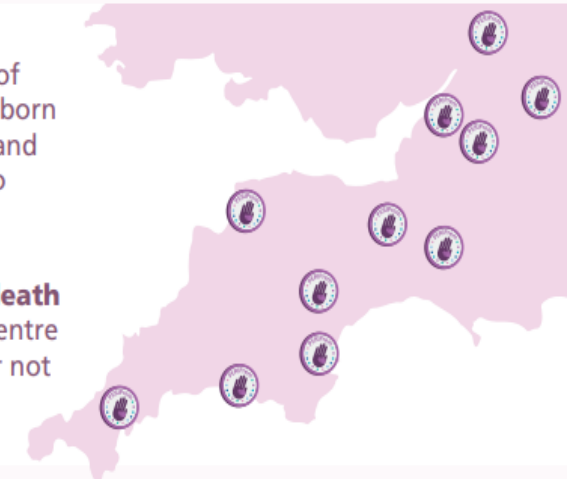
**<27 WEEKS OR  
<800G IN A TERTIARY NICU  
<28 WEEKS IF MULTIPLE BIRTH**

**2-3 fold** higher risk of **Severe Brain Injury** if born in a non-tertiary unit and transferred ex utero

**NNT 8**

**1.3 times** the odds of **death** if born in non-tertiary centre whether transported or not

**NNT 20**



Work as a team to **promptly identify** women in **suspected, diagnosed** or **established preterm labour** or P-PROM and **expected delivery**

# MAGNESIUM SULPHATE

FOR ALL INFANTS  
<30 WKS GESTATION



Use of magnesium sulphate in preterm labour **reduces the risk of cerebral palsy by 30%**



**4g bolus 1g/hr**

administer prior to transfer, aim to start **24hrs** prior to delivery but even 1hr will help!

**1 case of cerebral palsy** is prevented for every **37 mothers** who receive magnesium sulphate.



**Prevents brain cell death & reduces inflammation**  
**About 1 in 10 babies** of very low birth weight develop a form of cerebral palsy.

There are **no long term side effects** of magnesium sulphate for mothers but during administration they can feel rather **unwell** and feel a **"burning"** sensation

## CONTRAINDICATIONS

Myasthenia Gravis  
It is the patient's right to have the choice to decline



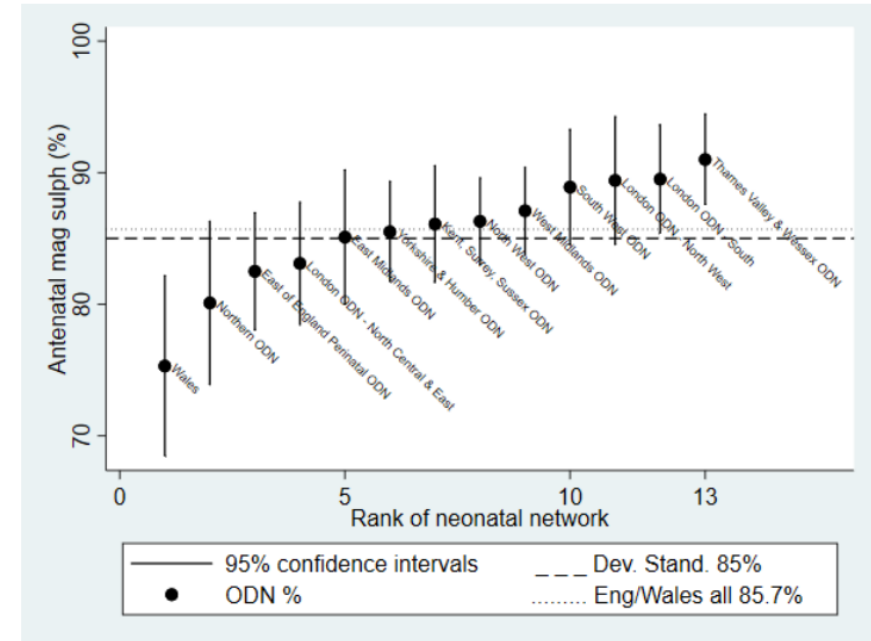
**Give if in labour or transferring out in early labour & investigate missed cases**

STEP 2



**Figure 16. Caterpillar plot of the proportions of administration of magnesium sulphate, by neonatal network or operational delivery network (ODN).**

Network proportions are represented by dots. The 95% confidence intervals for a network are shown by a vertical line with each dot.



# INTRAPARTUM ANTIBIOTIC PROPHYLAXIS



## Aim -

95% of women in established preterm labour (less than 34 weeks gestation) to receive Intrapartum Antibiotic Prophylaxis at least 4 hours prior to birth.

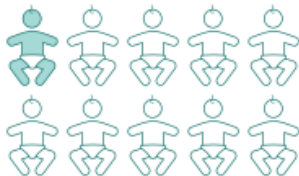
To prevent early onset neonatal Group B streptococcal (GBS) infection, women should receive intrapartum antibiotic prophylaxis **irrespective** of whether they have ruptured **or** intact membranes

In the UK we **don't currently screen** for GBS colonisation so in the case of PPROM and preterm labour we should practice cautiously and assume its presence

The risk of **death** from **GBS sepsis** in preterm infants is **25%**

**Intrapartum antibiotics reduce** the risk of neonatal **GBS sepsis** in GBS colonised women by **86%**

NNT 10 to prevent 1 infant being born preterm with GBS



Reduce the risk of **delivery** within a week by **20%**

Reduce the risk of abnormal neonatal **cranial ultrasound** findings by **20%**



Intrapartum antibiotic prophylaxis should be given at least 4 hours prior to birth. The antibiotics of choice are Benzylpenicillin or Cephalosporins/ Vancomycin in penicillin allergic women. Confirm agent with your local antimicrobial guidelines

## STEP 3



## Intrapartum Antibiotic Prophylaxis

To be offered to all women in established labour before 34 weeks

Baby Details

Admission To Unit

Parent Details

Siblings / Guardian / Visitor

Previous Pregnancies

Maternal Medical / Antenatal History

Labour and Birth

Management at Birth

GP and Professionals

CRIB II

### Labour

Onset of labour  Spontaneous  Induced  None

Onset  at

2nd stage onset  at  Length  hours  mins

Liquor State at RoM

Labour history

Drugs in Labour

Date and Time Membranes Ruptured  at

Duration of Membrane Rupture  Hours  Mins

Maternal pyrexia in labour more than 38C  No  Yes  Unknown

Intravenous Intrapartum antibiotics given  No  Yes

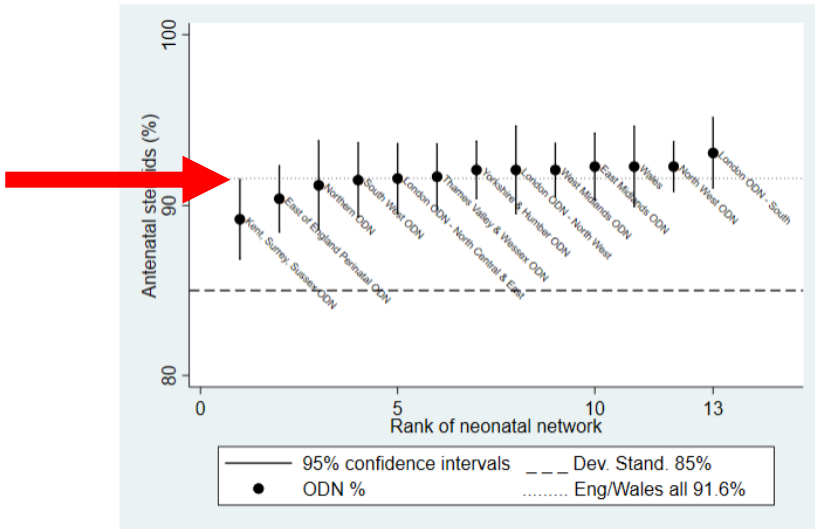


STEP 4

**Steroids**  
To be offered to all women before 34 weeks with threatened labour

Figure 13. Caterpillar plot of the proportions of administration of antenatal steroids, by neonatal network or operational delivery network (ODN).

Unit proportions are represented by dots. The 95% confidence intervals for a unit are shown by a vertical line with each dot.



# ANTENATAL STEROIDS

## FOR ALL <34 WEEKS



If expected to give birth **WITHIN 7 days**  
**AND** haven't had steroids within the last 2 weeks  
**Including >22 wks** gestation if for resuscitation  
Aim to give a **full course** (2 doses 12-24hrs apart)  
**1-7 days before** birth

Use **QUIPP** and **fFN** to accurately predict birth

### STERIODS REDUCE THE RISK OF

Neonatal  
Death by  
**30%**

NEC by  
**50%**

Grade 3-4  
IVH by  
**45%**



**STEP 4**

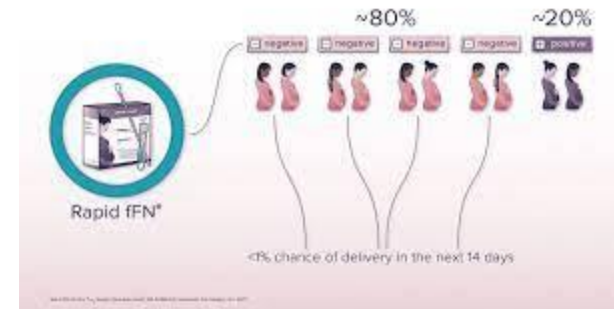
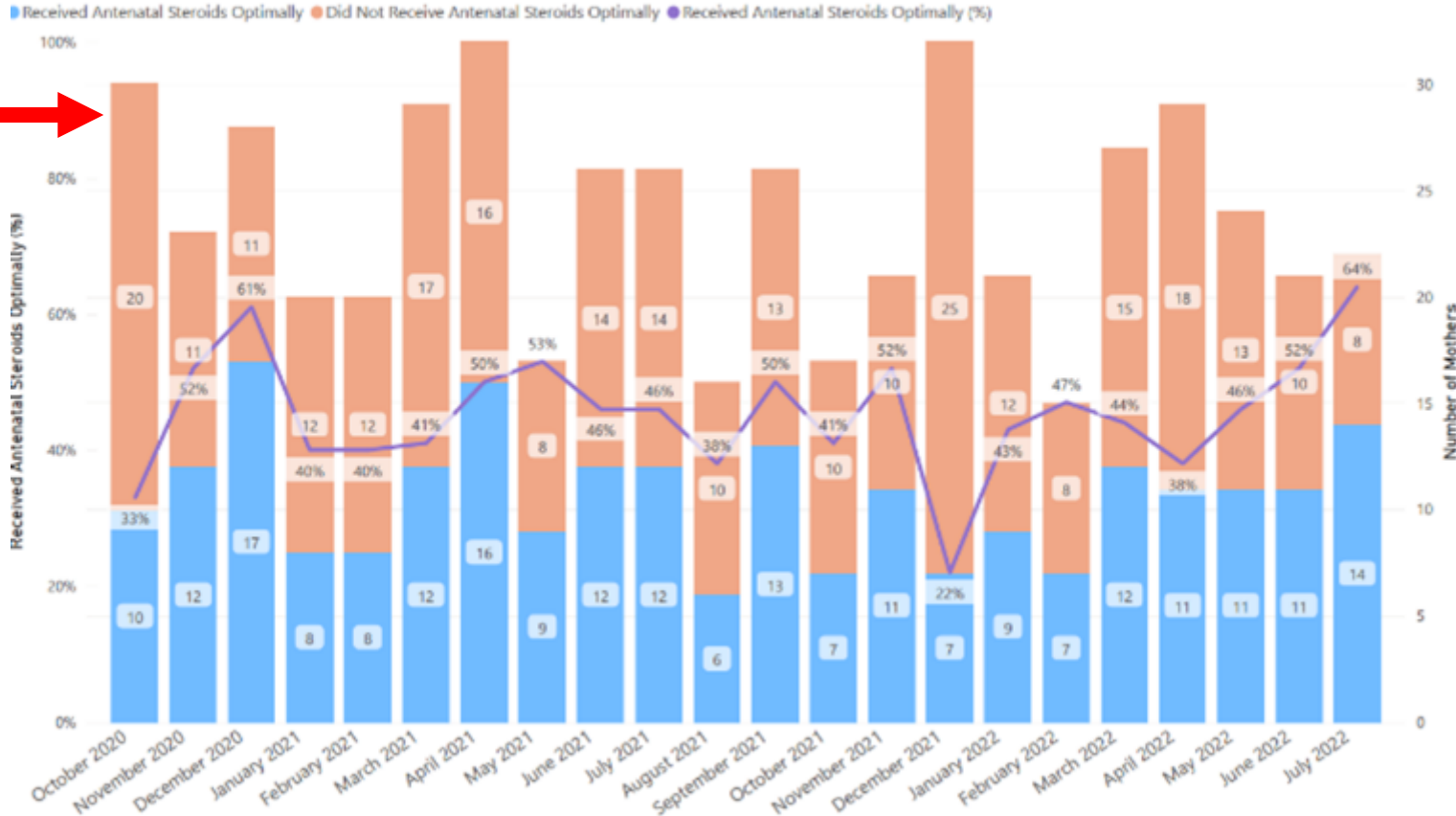


**Steroids**

To be offered to all women before 34 weeks with threatened labour



**How many babies' mothers were administered antenatal steroids OPTIMALLY?**





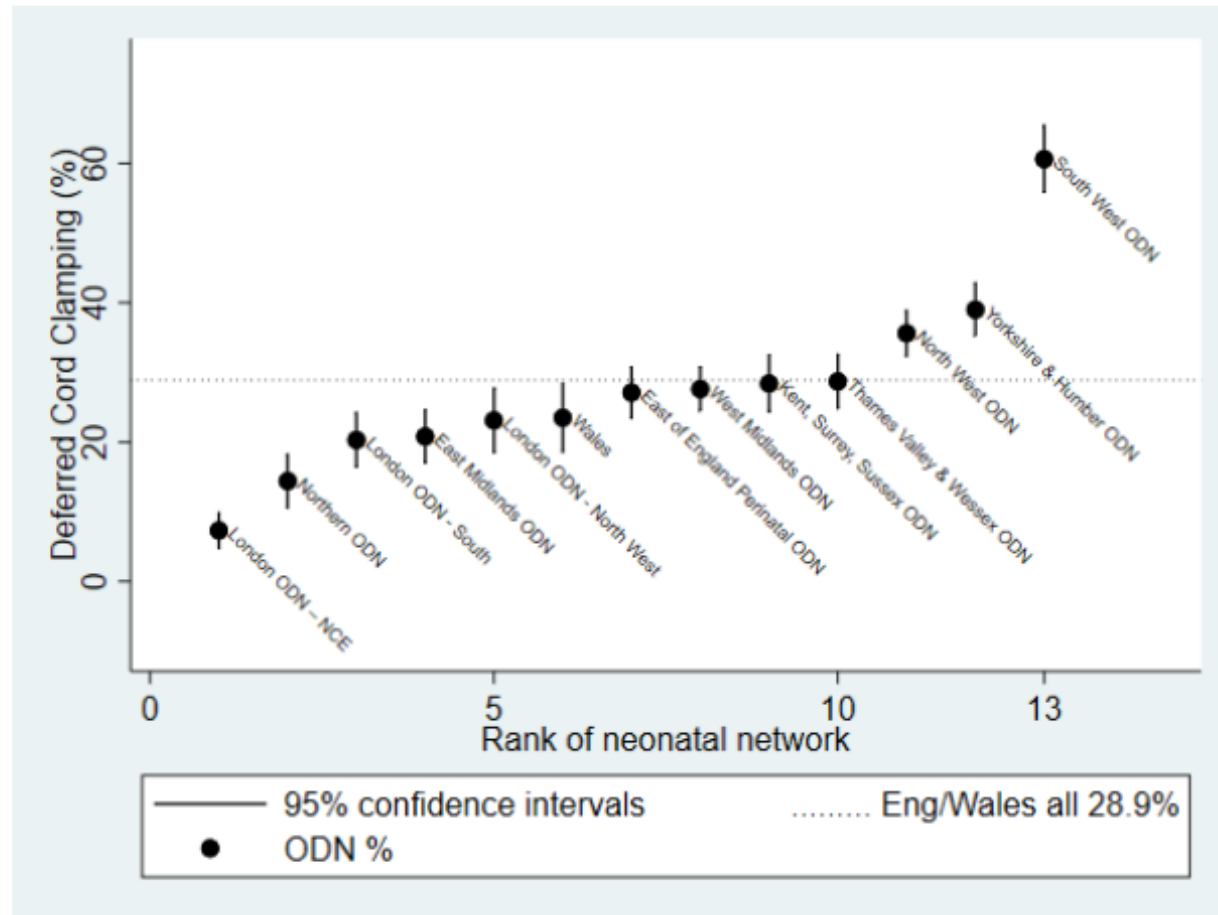
STEP 5



**Optimal cord management**  
For all babies before 34 weeks

**Figure 19: Caterpillar plot of the proportions of deferred cord clamping, by neonatal network or operational delivery network (ODN).**

Network proportions are represented by dots. The 95% confidence intervals for a network are shown by a vertical line with each dot.



# OPTIMAL CORD MANAGEMENT



**FOR ALL PRETERM INFANTS BORN <34 WEEKS**

## EFFECTS OF OPTIMAL CORD MANAGEMENT (OCM)

**decreased mortality** by nearly a **third** for preterm infants

**Number of infants** =<28 weeks that need to get OCM to **save a life** is **20**

Fogarty 2018



**Careful execution of OCM is essential to maintain neonatal wellbeing. Consider the below:**

- Perinatal Team Simulation
- How to stabilise the infant during OCM
- Establish supply of sterile resuscitation equipment
- Thermoregulatory care e.g. use a sterile plastic bag

OCM is **safe** for **multiple pregnancies**

Jegatheesan et al 2018

**Potential contraindications:** Haemorrhage, Twin-to-Twin-Transfusion

**OCM MULTI DISCIPLINARY TEAM**





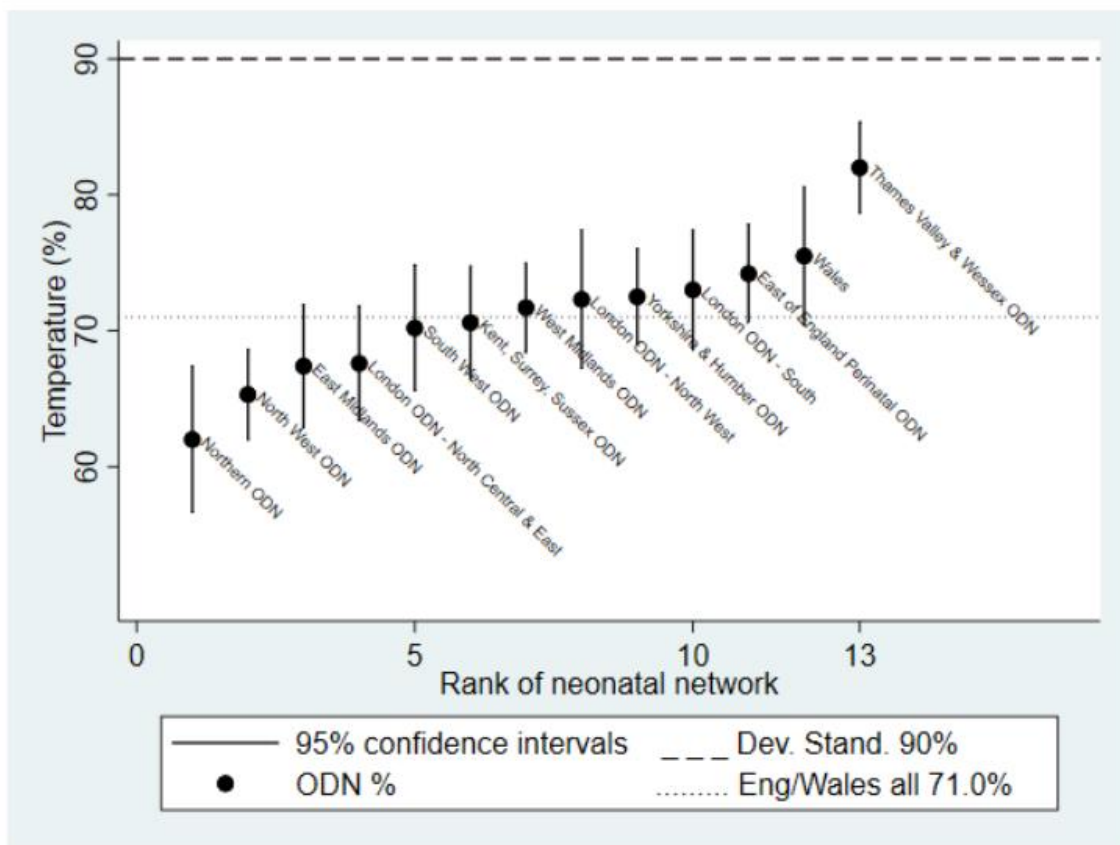
## STEP 6



**Temperature**  
Normal temperature range (36.5-37.5°C)  
for all babies before 34 weeks

**Figure 21. Caterpillar plot of the proportions of temperature taken on time and within normal range, by neonatal network or operational delivery network (ODN).**

Network proportions are represented by dots. The 95% confidence intervals for a network are shown by a vertical line with each dot.



# THERMO REGULATION



## WHY DOES IT MATTER?

Hypothermia in preterm infants increases risk of:

- increased risk of death
  - hypoglycaemia
  - metabolic acidosis
- respiratory distress and acidosis
  - necrotising enterocolitis
  - coagulation defects
- intraventricular haemorrhage

McCall et al 2018



**FOR EVERY 1 DEGREE DECREASE IN ADMISSION TEMPERATURE MORTALITY INCREASES BY 28%**

Laptook et al 2007

**IMPROVE TEMPERATURE BY: PUTTING IN A PLASTIC BAG**



**REAL TIME TEMP MONITORING DURING RESUSCITATION**

**PUTTING A HAT ON + WRAP UP WARM**



**USE BAPM + QI TO INVESTIGATE HYPOTHERMIA + IMPROVE OUTCOMES**

[www.bapm.org/pages/105-normothermia-toolkit](http://www.bapm.org/pages/105-normothermia-toolkit)

**Breast milk**

Maternal breast milk to be received within 24 hours of birth for all babies before 34 weeks

## The benefits of Breast Milk for premature babies



**Evidence suggests that for premature babies, their mother's fresh breast milk is the most important and effective nutrition that is available.**

Your breast milk has a vital role in protecting your premature baby's gut from necrotising enterocolitis, a devastating gut condition. It also helps their brain, immune system, eyes and lungs. For premature babies, breast milk is associated with improved development as the baby grows up (development includes skills like walking, coordination, speech).



### Every drop counts

Each millilitre of their mother's breast milk has a positive influence on outcomes for premature babies.

All babies, no matter how early or unwell, can receive their mother's colostrum (special early breast milk) into their mouths.

Your breast milk is specifically designed for your baby in terms of nutrition, optimum gut health and immunity.



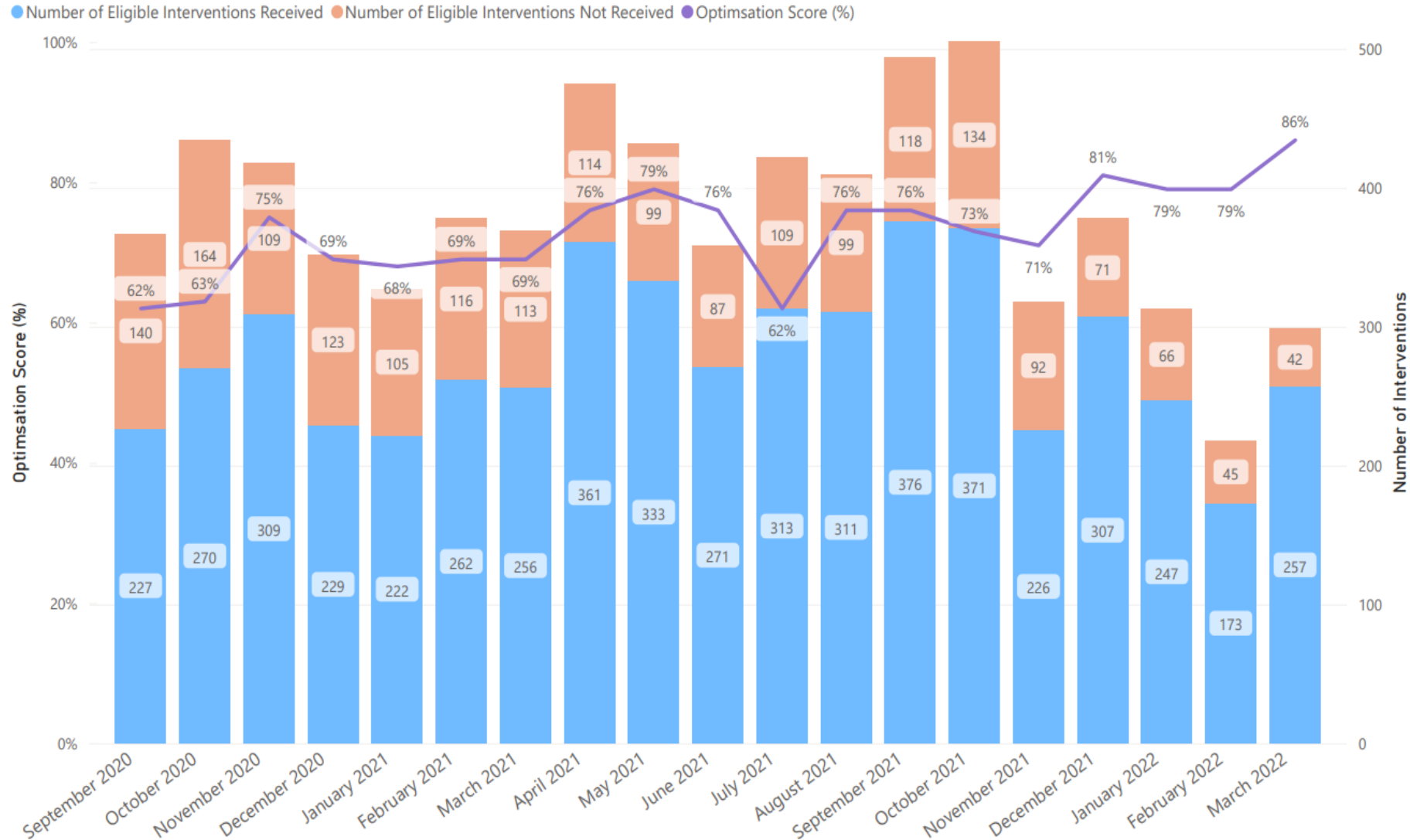
## Maternal Breast Milk Toolkit

Optimising Early Maternal Breast Milk for Preterm Infants: A Quality Improvement Toolkit



# Overall Optimisation

PERIPrem Bundle: Optimisation Score [Total number of interventions given/Total number of optimal interventions]



# Building Successful Perinatal Teams Resource



Activities



Solutions



Improvement  
stories

# Learning

GALVANISE THE SUPPORT OF THE WHOLE PERINATAL TEAM



DRAW ON ALL OF THE AVAILABLE RESOURCES AND SUPPORT



SELECT AN APPROPRIATE LEADER



BREAK IT DOWN



RECOGNISE THE TIME AND RESOURCE



DON'T UNDERESTIMATE THE POWER OF THE EVIDENCE-BASE



FOSTER A POSITIVE PERINATAL TEAM CULTURE



HARNESS THE BENEFITS OF DIGITAL TECHNOLOGY



CELEBRATE SUCCESS



BE INNOVATIVE



- "I know of no single formula for success, but over the years I have observed that some attributes of leadership are universal and are often about finding ways of **encouraging people to combine their efforts, their talents, their insights, their enthusiasm and their**





# How can the data help in the implementation of PREM 7?

**Jacqui Bobby**

Analyst with Thames Valley & Wessex and Kent Surrey Sussex Neonatal Operational Delivery Networks.

# Data can answer ..

Are our preterm babies fully optimised? (in terms of prem 7)

How do we compare to other units and targets?

Are we improving over time?

Where to focus for improvement?

Identifying cases where interventions missed for audit as to why, leading to improvement in processes

Are we making a difference? (Link to outcomes)

**BUT**

Needs good, reliable data.



# Data flows

Trust systems – Patient record systems EPRs, Maternity, Neonatal

*There may be issues with interface. Cannot assume that if data updated on one system this will automatically be updated on badgernet neonatal*

**BadgerNet**  
Neonatal



Data Collated here for all Prem 7 measures

Further data input and validation

*Units might also have their own data collection and reporting systems for Prem 7. If data not on badgernet it will not be reflected in the dashboard*

ODN Dashboard reporting

# Data Validation on badgernet

There is a new report

		All Applicable Interventions							Birth in appropriate Setting		Antenatal Steroids		Antenatal Magnesium Sulphate		Intravenous Antibiotics		Optimal Cord Clamping		Temperature		Mothers Milk	
Year	Month	Unit Name	Unit Designation	Number of Babies included	All Interventions Provided	Total elements met	Total Elements	Elements met %	Number	Denominator	Number	Denominator	Number	Denominator	Number	Denominator	Number	Denominator	Number	Denominator	Number	Denominator
2022	4	LNU		8	0	15	43	34.9	0	1	3	7	6	6	0	7	0	8	6	6	0	8
2022	5	LNU		7	0	11	32	34.4	0	0	2	6	1	1	0	6	4	7	4	5	0	7
2022	6	LNU		9	0	12	39	30.8	0	0	2	7	5	5	0	7	3	9	2	2	0	9

7 babies <34 weeks born in May. Click on the number and scroll down to get .... (see next slide)

# Data Validation on badgernet

A listing of the babies, and what is recorded on badgernet for the 7 measures

Helpful for validation

Main issues with unrecorded data :

- Intrapartum antibiotics
- Date of last steroid dose
- UNICEF fields (these found on the discharge summary tab)

MatNeoSIP - Preterm Birth Preparation drilldown															
Forename	Surname	National ID	Badger ID	Gestation at birth (weeks)	DOB	Earliest Birth Time (Multiple births)	Admission time	Birth in appropriate care setting	Mother received full course of Antenatal Steroids (Within 7 days of birth)	Mother received full course of Antenatal Steroids (24-48 hours of birth)	Antenatal Magnesium Sulphate in the 24 hours prior to delivery	Intravenous Intrapartum Antibiotics 4 hours prior to delivery	Optimal Cord Clamping	Normothermic Temperature within 1 hour of birth	Mother's Milk given within 6 hours of birth (UNICEF Baby Friendly Data)
				31	02/05/20 22 00:45	02/05/20 22 00:45	02/05/20 22 01:05	Not Eligible	Yes	No	Yes	Missing data for time of IV Intrapartum Antibiotics Last Dose	Yes	Yes	Missing UNICEF Baby friendly data
				30	04/05/20 22 18:35	04/05/20 22 18:35	04/05/20 22 19:00	Not Eligible	No	No	Not Eligible	No - Intravenous Intrapartum antibiotics not given	No - cord clamping immediate	Yes	Missing UNICEF Baby friendly data
				30	04/05/20 22 18:36	04/05/20 22 18:35	04/05/20 22 18:45	Not Eligible	No	No	Not Eligible	No - Intravenous Intrapartum antibiotics not given	No - cord clamping immediate answered as "Unknown"	Yes	Missing UNICEF Baby friendly data

# ODN Dashboard

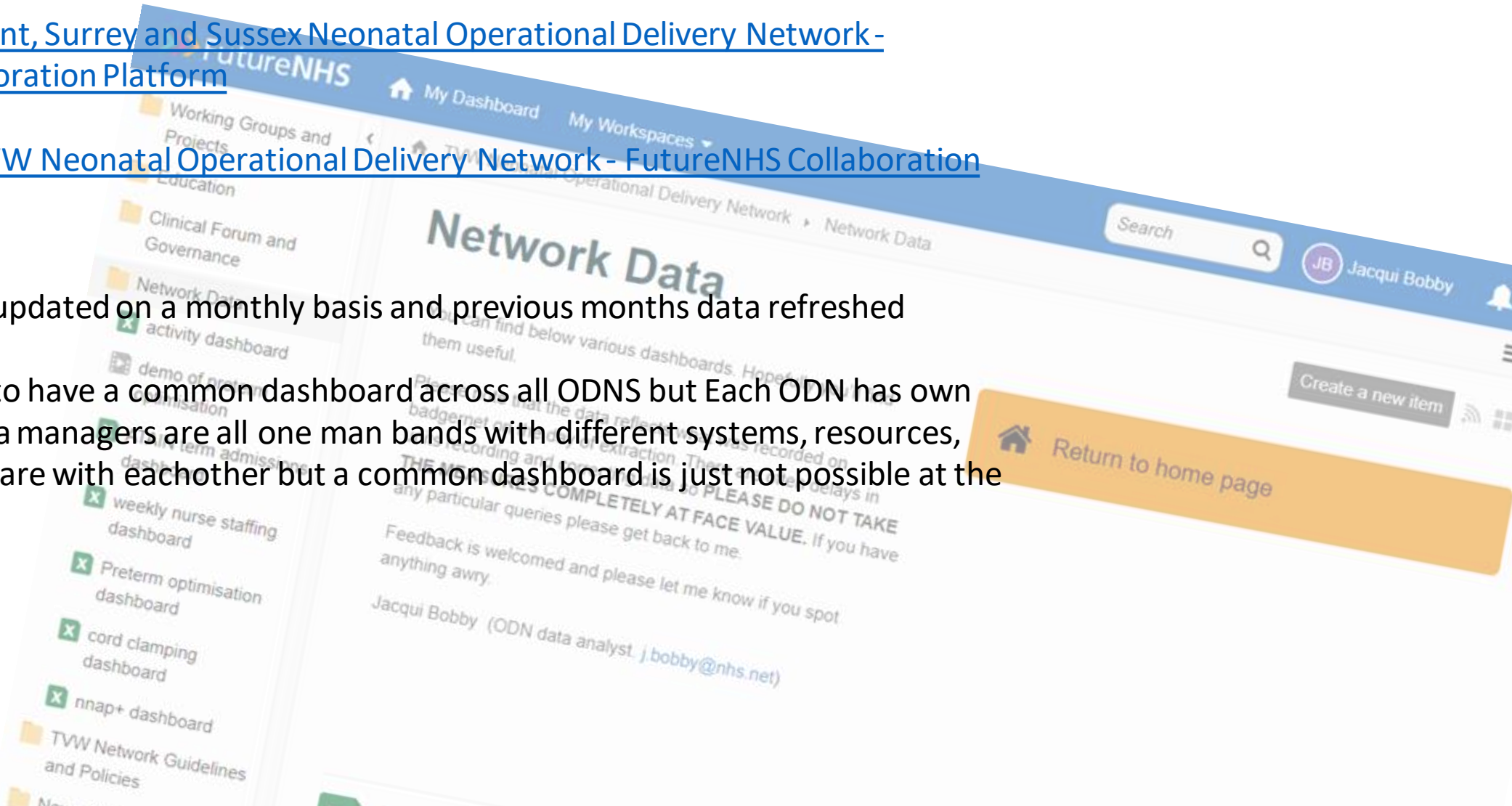
The Preterm optimisation dashboard can be found on NHS Futures on ODN Network data areas

[Network Data - Kent, Surrey and Sussex Neonatal Operational Delivery Network - FutureNHS Collaboration Platform](#)

[Network Data - TVW Neonatal Operational Delivery Network - FutureNHS Collaboration Platform](#)

The dashboard is updated on a monthly basis and previous months data refreshed

It would be great to have a common dashboard across all ODNs but Each ODN has own version, .. The data managers are all one man bands with different systems, resources, skills etc We do share with eachother but a common dashboard is just not possible at the moment



# ODN Dashboard

## Preterm Optimisation Dashboard

Thames Valley Wessex and Kent Surrey  
Sussex ODNs

**quarter**  
 2021/22 Q4  
 2022/23 Q1  
 2022/23 Q2  
**month ...**  
 202111  
 202112  
 202201

**ODN**  
 KSS  
 TVW

**AHSN**  
 KSS  
 Oxford  
 Wessex  
 (blank)

**LMNS**  
 BLM  
 BOB  
 Dorset  
 FRIM  
 Kent  
 SHIP  
 Surrey

**Unit**  
 Basingstoke  
 Chichester  
 Darent Valley  
 Dorset County  
 East Surrey  
 East Sussex  
 Frimley Park

**Type**  
 LNU  
 NIC  
 SCU

**place ...**  
 Elsewhere  
 Mat Unit  
 (blank)

**Ges...**  
 22  
 23  
 24  
 25  
 26  
 27  
 28

**ethnicity ...**  
 White  
 Black  
 Asian  
 Mixed / Other

*To select more than one item in a category click on first item to select and then hold down control key when selecting subsequent items*

Data to end August 2022

You can select the time period and the organisation(s) and various other criteria

Then see performance against the Prem 7 measures plus a few others (eg probiotics)

It reflects data as recorded on badgernet on the day of extraction.

	Total across all units shown ->	
<b>STEP 1</b>  <b>Right place of birth</b> All babies born in appropriate settings for their gestation	Babies <27w <28w mult <800g	68
	Born in Mat unit with NIC in wrong place	57 11
	<a href="#">[see here for % in right place at system level]</a>	
	Babies 27-31.6 weeks	157
	Born in Mat unit with NIC / LNU in wrong place	133 24
<b>STEP 2</b>  <b>Magnesium Sulphate</b> To be offered to all women before 30 weeks with imminent or planned birth	Eligible Babies (<30 weeks)	129
	% mother received MgSO <sub>4</sub>	89%
	% within 4 hours	19%
<b>STEP 3</b>  <b>Intrapartum Antibiotic Prophylaxis</b> To be offered to all women in established labour before 34 weeks	Eligible Babies (<34 weeks)	428
	% Mother received Intrapartum Antibiotics	6%
<b>STEP 4</b>  <b>Steroids</b> To be offered to all women before 34 weeks with threatened labour	Eligible Babies (<34 weeks)	427
	% Any A/N steroid	90%
	% Complete course (last dose within 7 days of delivery)	37%

<b>STEP 5</b>  <b>Optimal cord management</b> For all babies before 34 weeks	Eligible Babies (<34 weeks)	428
	% babies with cord clamped at >= 1 minute	55%
	% babies with cord clamped at >= 1 minute or cord stripping [note cord stripping is NOT endorsed by BAPM apart from in exceptional circumstances]	60%
<b>STEP 6</b>  <b>Temperature</b> Normal temperature range (36.5-37.5°C) for all babies before 34 weeks	Eligible Babies (<34 weeks)	428
	% babies with temperature in range	74%
<b>STEP 7</b>  <b>Breast milk</b> Maternal breast milk to be received within 24 hours of birth for all babies before 34 weeks	Eligible Babies (<34 weeks)	428
	% babies with breastmilk within 6 hours of birth (Unicef field)	3%
	% with breastmilk on day of birth or day after (day summary)	39%

<b>Caffeine</b> Babies should be started on caffeine as soon as possible (am within the first 6 hours... NICE says: "starting it as early as possible and ideally before 3 days of age") in all babies.	Eligible Babies (<34 weeks)	428
	% with caffeine on day of birth or day after	52%
<b>Prophylactic Hydrocortisone</b> Babies born <28 weeks gestation should receive prophylactic hydrocortisone from day 0 of life.	Eligible Babies (<28 weeks)	76
	% with Hydrocortisone on day of birth or day after	54%
<b>Probiotics</b> Babies (less than 32 weeks, less than 1500g birth weight) should be commenced on a multi-strain probiotic of choice on the first day of life.	Eligible Babies (<32 weeks or <1500g)	256
	% with Probiotics on day of birth or day after	34%

# ODN Dashboard

## Preterm Optimisation Dashboard

Thames Valley Wessex and Kent  
Surrey Sussex ODNs

Data to end August 2022

Shows performance by measure by quarter.  
NB: if only one or two months data is available for latest quarter the data will reflect this not the whole quarter.

Organisation	Measure	2021/22 Q1	2021/22 Q2	2021/22 Q3	2021/22 Q4	2022/23 Q1
ODN KSS	% any AN steroids	96%	88%	89%	94%	87%
ODN KSS	% complete course AN steroids	31%	26%	32%	45%	42%
ODN KSS	% Mag sulph (4 hours)	0%	3%	2%	3%	5%
ODN KSS	% Intrapartum Antibiotics (4hrs)	47%	49%	52%	47%	53%
ODN KSS	% cord clamping deferred or stripping	68%	71%	76%	68%	77%
ODN KSS	% temperature in range	0%	0%	1%	2%	27%
ODN KSS	% breast milk in 24 hours	23%	31%	35%	60%	59%
ODN KSS	% caffeine within 24 hours	31%	13%	16%	20%	20%
ODN KSS	% Hydrocortisone within 24 hours	22%	11%	12%	41%	41%

**Measure**

- % any AN steroids
- % breast milk in 24 hours
- % breast milk in 6 hours
- % Caffeine within 24 hours
- % complete course AN steroids
- % cord clamping deferred by >=1 min
- % cord clamping deferred or stripping
- % Hydrocortisone within 24 hours
- % Intrapartum Antibiotics (4hrs)
- % Mag sulph (4 hours)
- % Mag sulph

**Organisation**

- ODN TVW
- ODN KSS
- LMNS:BOB
- LMNS:Dorset
- LMNS:SHIP
- LMNS:Kent
- LMNS:Surrey
- LMNS:Sussex
- LMNS: Frimley
- AHSN Oxford
- Unit: Oxford

To select more than one organisation or measure click on first item to select and then hold down control key when selecting subsequent items

Click X in top right hand corner to clear selection

Babies < 27 weeks gestation or <28 week multiples or <800g by whether born in a maternity unit with a NIC  
Note this is babies not deliveries. Reporting elsewhere is generally based on deliveries.  
It is summed by Neonatal 'system'. i.e a NIC and its referring units (in terms of in utero transfers).

Item	Description	2021/22 Q1 Apr-Jun '21	2021/22 Q2 Jul-Sep '21	2021/22 Q3 Oct-Dec '21	2021/22 Q4 Jan-Mar '22	2022/23 Q1 Apr-Jun '22	2022/23 Q2 Jul-Sep '22	2022/23 Q3 Oct-Dec '22	2022/23 Q4 Jan-Mar '23	2021/22 to date	2022/23 to date
Thames Valley Wessex all 14 Units in TVW ODN	babies in right place % in right place	46	32	52	38	55	32	0	0	168	93
Thames Valley Oxford, Milton Keynes, Stroud...	babies in right place % in right place	37	29	44	33	41	32	0	0	143	73
		80%	91%	85%	87%	75%	84%	0	0	85%	78%
		24	16	19	21	26	17	0	0	80	43
		79%	100%	79%	81%	69%	76%	0	0	67	31
		22	16	33	17	29	21	0	0	88	50
		18	13	29	16	23	19	0	0	76	42
		82%	81%	88%	94%	79%	90%	0	0	86%	84%
		43	28	33	37	34	24	0	0	141	58
		31	21	27	29	26	24	0	0	108	50
		72%	75%	82%	78%	76%	100%	0	0	77%	86%
		17	8	13	6	18	11	0	0	44	29
		11	6	11	3	13	11	0	0	31	24
		65%	75%	85%	50%	72%	100%	0	0	70%	83%
		20	16	12	17	10	8	0	0	65	18
		15	12	9	15	7	8	0	0	51	15
		75%	75%	88%	70%	100%	100%	0	0	78%	83%
		6	4	8	14	6	5	0	0	32	11
		5	3	7	11	6	5	0	0	26	11
		83%	75%	88%	79%	100%	100%	0	0	81%	100%

Item	Description
Filter for place of birth	This shows the basis to filter babies by whether born in a maternity unit or not. "Elsewhere" includes babies born at home, in transit, in place
Births <27 weeks (plus under 28 week multiples)	This is number of babies under 27 weeks gestation or under 28 week multiples or under 800g. Note this is number of babies (so multiples counted individually) not number of deliveries
Births <27 weeks, <28 week multiples or <800g	This is number of babies under 27 weeks gestation or under 28 week multiples or under 800g. Note this is number of babies (so multiples counted individually) not number of deliveries
Right place	Babies born in a maternity units with NICU
Wrong place	Babies born in Maternity unit with LNU or SCU, or born outside of a maternity unit (at home, in transit etc)
Babies 27-31.6 weeks	Babies >=27 weeks (excluding multon of <28weeks and <800g)
Right place	Babies born in a maternity units with NICU or LNU
Wrong place	Babies born in Maternity unit with SCU, or born outside of a maternity unit (at home, in transit etc)
<b>Antenatal steroids.</b>	
Eligible babies	Number of babies >=23 weeks and <34 weeks gestation admitted to
Any Steroids given	Number and percentage of babies whose mothers given steroids
Full dose Steroids given	Number and percentage of babies whose mothers received full dose steroids with the last dose being within 7 days of delivery
<b>Antenatal Magnesium Sulphate</b>	
Eligible babies	Number of babies <30 weeks
% where mothers received Magnesium Sulphate (MgSO <sub>4</sub> )	Number and percentage of eligible babies whose mothers received Magnesium Sulphate
<b>Intrapartum antibiotic prophylaxis</b>	
Eligible babies	Number of babies <34 weeks
Intravenous Antibiotics received with 4 hours	Number and percentage of babies whose mothers recorded as receiving Intravenous Antibiotics within 4 hours of birth
<b>Cord clamping deferred by &gt;= 1 minute (births &lt;34 weeks)</b>	
Eligible babies	Number of babies <34 weeks
Cord clamped >=1 minute after birth	Number and percentage babies where it is recorded that the cord clamping was deferred for >= 1 minute
Cord clamped >=1 minute after birth or cord stripping	Number and percentage babies where it is recorded that the cord clamping was deferred for >= 1 minute OR that cord stripping had taken place. (note cord stripping is NOT endorsed by BAPM apart from in exceptional circumstances)
<b>Normothermia. % babies &lt;34 weeks that have temp within one hour of birth in range 36.5-37.5</b>	
Eligible babies	Total number of babies <34 weeks. Note NNAP specifies <32 weeks so not quite equivalent
Temperature between 36.5°C and 37.5°C (% of those taken in 1 hr of Admit)	Total number and percentage of babies with an admission temperature between >36.5°C and >37.5°C taken within 1 hour of birth
<b>Early Maternal breastmilk</b>	
Eligible babies	Number of babies <34 weeks
Early maternal breast milk within 6 hours of birth	Number and % eligible babies that are recorded as receiving received Early Maternal Breast Milk within 6 hours of birth (as recorded in the 'UNICEF' data fields found under the discharge tab on badgernet)
Early maternal breast milk on day of birth or day after,	Number and % eligible babies that are recorded as receiving received Early Maternal Breast Milk within 6 hours of birth, OR as having an enteral feed of maternal breast milk on calendar day of birth or day after OR recorded as receiving mouth care of colostrum or breast milk

# Contacts

Jacqui Bobby: [j.bobby@nhs.net](mailto:j.bobby@nhs.net) Data Analyst

I'm very happy to do a quick teams meet with anyone to take through the data and how to use the dashboard and badgernet pages. There is also a short video about how to use the filters on the dashboard on the futures pages.

For access to ODN Futures (and dashboard) please contact

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Or for TVW [england.tv-w-neonatalnetwork@nhs.net](mailto:england.tv-w-neonatalnetwork@nhs.net)

# PREM 7

## Maternity & Neonatal (MatNeo) & ODN Contacts



- **Kent Surrey Sussex:**
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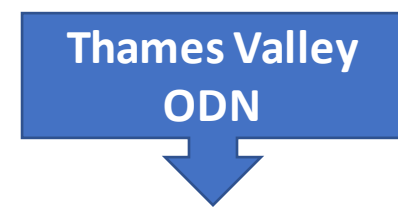
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**STEP 1**  
**Right place of birth**  
All babies born in appropriate settings for their gestation

**STEP 2**  
**Magnesium Sulphate**  
To be offered to all women before 30 weeks with imminent or planned birth

**STEP 3**  
**Intrapartum Antibiotic Prophylaxis**  
To be offered to all women in established labour before 34 weeks

**STEP 4**  
**Steroids**  
To be offered to all women before 34 weeks with threatened labour

**STEP 5**  
**Optimal cord management**  
For all babies before 34 weeks

**STEP 6**  
**Temperature**  
Normal temperature range (36.5-37.5°C) for all babies before 34 weeks

**STEP 7**  
**Breast milk**  
Maternal breast milk to be received within 24 hours of birth for all babies before 34 weeks