

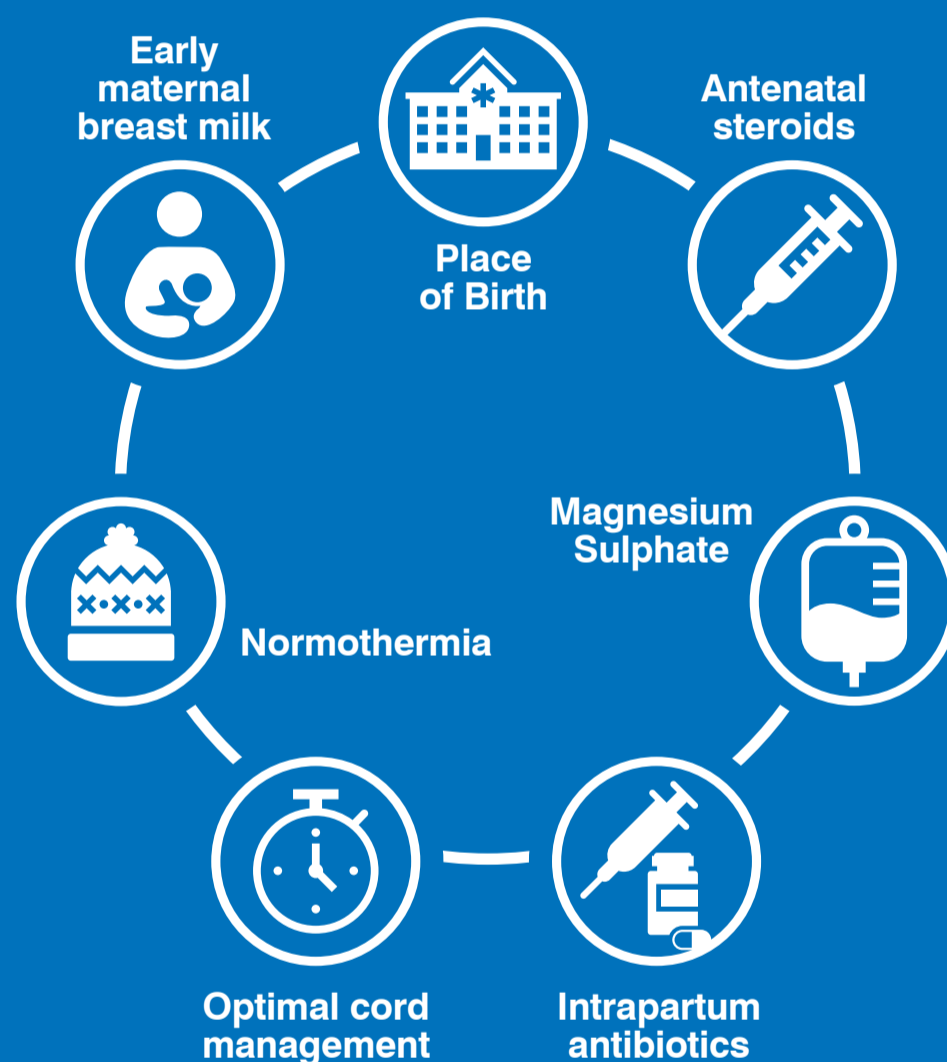
**Maternity  
and Neonatal**

# Pre-term birth? Think...optimisation!

Help to reduce variation and outcomes in care for mothers and babies experiencing pre-term birth, by using the optimisation care bundle from the British Association of Perinatal Medicine.

Prematurity is a major contributor to perinatal morbidity and mortality, and you can help to improve safety by ensuring the care bundle is fully embedded in your unit.

Speak to your local maternity and neonatal optimisation team to find out more.



Our local trust optimisation team members are:

All maternity and neonatal teams in the North West are being supported by the Patient Safety Collaborative at the Innovation Agency and Health Innovation Manchester, in collaboration with the North West Operational Delivery Network. This work aligns to Saving Babies Lives 2 (2019) element 5 and CNST 4 (2021) safety standards 6 and 9.

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# Pre-term birth? Think...optimisation!

Extreme pre-term birth in a tertiary setting significantly improves survival and neurodevelopment outcomes.

## THINK...

-  Antenatal education about pre-term birth at every antenatal visit
-  Triage – rapid assessment for women presenting with pre-term labour
-  Early prediction of pre-term birth
-  Use of clinical decision-making technology to improve accuracy of diagnosis
-  **Transfer:** evaluate need for transfer (<27w singletons, <28w multiples, <800g) **start process now**
-  Refer to your regional Maternity and Neonatal Network pre-term guideline or local guidance



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# Pre-term birth? Think...optimisation!

The use of antenatal steroids significantly improves survival by reducing the risk of pre-term lung disease, brain haemorrhage, necrotising enterocolitis (NEC) and sepsis.



## THINK...

- ✔ Targeted steroids
- ✔ Women giving birth after less than 34 weeks' gestation
- ✔ A full course of steroids no longer than 7 days prior to birth
- ✔ Ideally completed 24 – 48 hours prior to birth
- ✔ Benefit remains if given within 24 hours, if birth is imminent
- ✔ Refer to your regional Maternity and Neonatal Network pre-term guideline or local guidance

**One more baby surviving  
for every 8-10 women  
treated at less than  
26 weeks**

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# Pre-term birth? Think...optimisation!

The use of magnesium sulphate in the 24 hours before birth significantly reduces the risk of cerebral palsy.

## THINK...

- ✔ Women giving birth before 30 weeks
- ✔ Prevention of Cerebral Palsy in Pre-term labour (PReCePT)
- ✔ A loading dose of Magnesium Sulphate
- ✔ Administer 24 hours before birth
- ✔ Optimal timing to start at least 4 hours before and continuing up until birth
- ✔ Minimum four-hour infusion; but benefit may remain if given in less than four hours, if birth imminent
- ✔ Refer to your regional Maternity and Neonatal Network pre-term guideline or local guidance



One less baby with CP  
for every 37 women  
treated at less  
than 30 weeks

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# Pre-term birth? Think...optimisation!

The use of antibiotics four hours before birth significantly improves survival outcomes by reducing the risk of Group B Streptococcus Sepsis.

## THINK...

-  Women in established labour at less than 34 weeks
-  IV intrapartum antibiotics prophylaxis at least four hours before birth, irrespective if they have ruptured amniotic membranes
-  Refer to your regional Maternity and Neonatal Network pre-term guideline or local guidance



One less baby with infection for 10 GBS+ women treated in pre-term labour

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# Pre-term birth? Think...optimisation!

Optimal cord management significantly improves survival by reducing the risk of brain haemorrhage as well as the need for blood transfusion.

## THINK...

-  All eligible babies less than **34 weeks gestational age**
-  Ideally should have their umbilical cord clamped at or after one minute of age
-  Refer to your regional Maternity and Neonatal Network pre-term guideline or local guidance



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# Pre-term birth? Think...optimisation!

Early hypothermia (less than 36.5°C) increases the risk of mortality and brain haemorrhage, NEC and sepsis. Emerging evidence links early hyperthermia (more than 38°C) to adverse outcomes.



## THINK...

- All eligible babies less than 34 weeks gestational age
- First temperature on admission between 36.5 and 37.5°C and measured within an hour of birth.

### Interventions to reduce heat loss:

- Evaporation – **THINK** occlusive plastic wrap/bag. Woollen hat or plastic hood
- Convection – **THINK** room temperature and draft prevention (close windows/doors)
- Conduction – **THINK** transwarmer or exothermic mattress
- Radiation – **THINK** radiant heat source (ie resuscitare)

**Remember** not all interventions may be necessary and may result in overheating

- Refer to your regional Maternity and Neonatal Network pre-term guideline or local guidance

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# Pre-term birth? Think...optimisation!

The safest milk for preterm babies is maternal breast milk as it significantly improves survival by reducing the risk of sepsis and NEC.



## THINK...

- 
**All babies less than 34 weeks gestational age**
- 
**Receive maternal milk within 24 hours of birth**
- 
**Include buccal colostrum or mouth care if NBM**
- 
**Encourage early expressing of breast milk**
- 
**Refer to your regional Maternity and Neonatal Network Pre-term guideline or local guidance**

**Remember even a few small drops can make a difference**

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# Pre-term birth? Think...optimisation!

## THINK... Optimisation checklist

	<b>Place of birth Transfer:</b>	Evaluate need for transfer (<27w singletons, <28w multiples, <800g). Start process now	
	<b>Antenatal Steroids</b>	The use of antenatal steroids significantly improves survival by reducing the risk of pre-term lung disease, brain haemorrhage, necrotising enterocolitis (NEC) and sepsis	
	<b>Magnesium Sulphate</b>	The use of magnesium sulphate within 24 hours prior to birth significantly reduces the risk of cerebral palsy	
	<b>Intrapartum Antibiotics</b>	The use of IV antibiotics four hours before birth significantly improves survival outcomes by reducing the risk of Group B Streptococcus sepsis	
	<b>Optimal Cord Management</b>	Optimal cord management significantly improves survival by reducing the risk of brain haemorrhage as well as the need for blood transfusion	
	<b>Normothermia</b>	Early hypothermia (<36.5°C) increases the risk of mortality and brain haemorrhage, NEC and sepsis. Emerging evidence links early hyperthermia (>38°C) to adverse outcomes	
	<b>Early maternal breast milk</b>	The safest milk for preterm babies is maternal breast milk as it significantly improves survival by reducing the risk of sepsis and NEC	

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