



# PRECePT

## PREvention of Cerebral Palsy in PreTerm Labour

Magnesium Sulphate for  
Neuroprotection

## Quality Improvement Toolkit 2018

# Notes



# Change control



Version	Date	Author	Change
V 2.0	24 May 2018	PReCePT Programme and PReCePT Study Project Teams	Refreshed and collated materials for the PReCePT Programme
V 2.1	1 August 2018	PReCePT Programme and PReCePT Study Project Teams - changes by Lauren Hoskin, West of England AHSN	<ol style="list-style-type: none"><li>1. Change to Loading Dose on 'PReCePT Management of Preterm Labour Proforma'</li><li>2. Change to correct typo on 'Poster: Think Magnesium Sulphate Too'</li></ol>
V 2.2	7 September 2018	PReCePT Programme and PReCePT Study Project Teams - changes by Lauren Hoskin, West of England AHSN	Corrections to the PReCePT Dashboard and update to instructions on how to use the dashboard

# Acknowledgments



This PRECEPT Quality Improvement (QI) Toolkit was originally created in 2014 by the West of England Academic Health Science Network (AHSN) in collaboration with University Hospitals Bristol NHS Foundation Trust, North Bristol NHS Trust, Gloucestershire Hospital NHS Foundation Trust and Bliss.

It was updated in Spring 2018 for 'The PRECEPT Study', a research study funded by The Health Foundation 'Scaling Up' programme, to evaluate the effectiveness of different QI approaches to implementation of the intervention. This was in collaboration with University Hospitals Bristol NHS Foundation Trust, NIHR CLARHC West and the West of England AHSN.

It was simultaneously adapted for 'The PRECEPT Programme', the national adoption and spread of magnesium sulphate uptake in maternity units. NHS England funded implementation of this Programme via the 15 Academic Health Science Networks (AHSNs). It was led by the West of England AHSN.

## The PRECEPT Leadership Team

- **Clinical Lead (The PRECEPT Programme & The PRECEPT Study):**  
Dr Karen Luyt, Consultant Neonatologist, University Hospitals Bristol NHS Foundation Trust;  
Consultant Senior Lecturer, University of Bristol
- **Obstetric Lead (The PRECEPT Study):**  
Dr Emma Treloar, Consultant Obstetrician, University Hospitals Bristol NHS Foundation Trust
- **Midwifery Lead (The PRECEPT Programme):**  
Ann Remmers, Maternal and Neonatal Clinical Lead, West of England AHSN
- **Senior Responsible Officer (The PRECEPT Programme):**  
Tasha Swinscoe, Managing Director, West of England AHSN
- **Senior Responsible Officer (The PRECEPT Programme Set-up):**  
Kay Haughton, Director of Service Transformation, West of England AHSN
- **Senior Responsible Officer (The PRECEPT Study):**  
Robert Woolley, Chief Executive Officer, University Hospitals Bristol NHS Foundation Trust

# Acknowledgments



## **PRECEPT QI Toolkit Contributors**

- Professor Tim Draycott, Consultant Obstetrician, North Bristol NHS Trust; Senior Clinical Lecturer, University of Bristol
- Cathy Winter, Research Midwife, North Bristol NHS Trust
- Dr Rebecca Swingler, Consultant Obstetrician & Gynaecologist, Gloucestershire Hospitals NHS Foundation Trust
- Dr Miles Wagstaff, Consultant Paediatrician, Gloucestershire Hospitals NHS Foundation Trust
- Rachel Howard, Practice Development Support Midwife, Gloucestershire Hospitals NHS Foundation Trust
- Anna Burhouse, Director of Quality Development, RUBIS.Qi, Northumbria Healthcare NHS Foundation Trust (former Director of Quality, West of England AHSN)
- Liz Hill, Interim Project Manager, The PRECEPT Study, University of Bristol
- Clare Evans, Interim Project Manager, The PRECEPT Programme, West of England AHSN
- Jo Bangoura, QI Coach for The PRECEPT Study, West of England AHSN
- Lauren Hoskin, Communication and Marketing Officer, West of England AHSN
- Ruta Margelyte, Research Associate, NIHR CLAHRC West
- Ceilidh Jackson-Baker, Project Support Officer, West of England AHSN

# Welcome to PReCePT

## Prevention of Cerebral Palsy in PreTerm labour



The PReCePT journey started back in 2014 when Karen Luyt, a Neonatologist at University Hospitals Bristol NHS Foundation Trust, noticed that the uptake of magnesium sulphate as a neuroprotector for preterm babies was very low in the UK. This was despite strong evidence of its efficacy in preventing cerebral palsy.

Karen approached the West of England Academic Health Science Network (AHSN) with a proposal to address this. The case for change was compelling, with the low cost and low risk of administering magnesium sulphate to eligible mothers reducing the risk of preterm babies being born with cerebral palsy.

We co-designed a Quality Improvement (QI) approach with staff and parents and provided it to two maternity units in the West of England. Word quickly spread and a further three maternity units requested to join. By the conclusion of the project six months later, all five units had increased the administration of magnesium sulphate to eligible mothers from an average baseline of 21%, over the two years preceding the project, to 88%.

New recommendations from the National Institute of Clinical Excellence (NICE NG25) in 2015 reflected the clinical intervention and practice implemented in the PReCePT project. Publication in the British Medical Journal Open Quality (12/10/2017), "Preventing cerebral palsy in preterm labour: a multi-organisational quality improvement approach to the adoption and spread of magnesium sulphate for neuroprotection" served to highlight and promote the work. There has been significant interest in the project and the positive and sustained outcomes for mothers and babies.

This growing interest led to a second stage of PReCePT, funded by The Health Foundation through the 'Scaling Up' programme. The focus of this is for evaluative research to compare the



effect of different levels of funding and QI involvement on magnesium sulphate uptake rates. This is a key element of important learning to understand how to maximise the effectiveness in the adoption and spread of good practice.

Meanwhile, PReCePT was also selected to be one of the national 'adoption and spread programmes' by NHS England through the 15 AHSNs across the country. The West of England AHSN, as the lead AHSN, will enable the others to implement the adoption and spread of PReCePT using a multi-organisational QI approach in all maternity units across England.

Regardless of which stage of PReCePT you have joined, we appreciate your contribution to preventing preterm babies developing cerebral palsy through administration of magnesium sulphate to all eligible mothers in your unit. We hope this PReCePT QI Toolkit supports you to successfully embed this important clinical intervention into 'business as usual' practice.

**Dr Karen Luyt and the PReCePT Team**

# About this Quality Improvement Toolkit



This Quality Improvement (QI) Toolkit contains all the documents you will need to understand, plan and implement PReCePT in your maternity unit. Based on the success of the initial PReCePT project, some of the documents are categorised below as 'essential' for successful implementation, others are 'strongly recommended' and some are 'optional'.

The resources are available to view, print and download as a full toolkit or as standalone documents, so you can easily print high quality posters, for example, to display around your unit.

In designing the roll-out plan for your unit, you and your team will need to create a local PReCePT pathway and choose the appropriate optional resources provided, as fits with the culture and practice in your maternity unit. Remember that QI is an iterative process – you may need to revisit your initial pathway plans more than once to make a sustainable change. Once a local pathway has been established, this will need to be embedded in your Trust and unit policy.

All of the PReCePT resources can be accessed on the AHSN Network website at [www.ahsnnetwork.com/precept/](http://www.ahsnnetwork.com/precept/). You will also find a PReCePT Implementation Guide to supplement this toolkit, should you need any further information.

## Essential resources

- Introduction to PReCePT Evidence (Section 1)
- Summary of Key Research (Section 1)
- Clinical Guidance for the Management of Suspected Preterm Labour (Section 1)
- PReCePT Magnesium Sulphate Quick Reference (Section 1)
- PReCePT Infographic (Section 2)
- Parent Information Leaflet (Section 3)
- Staff 'PReCePT Training' Presentation (Section 4)
- Midwife Lead Role Description (Section 5)
- Regional Neonatal Lead Role Description (Section 5)
- Maternity Unit Obstetrician Lead Role Description (Section 5)

## Strongly recommended resources

- Poster: Think Magnesium Sulphate Too (Section 2)
- The PReCePT Dashboard and how to use it (Section 2)

## Optional resources

- PReCePT Management of Preterm Labour Proforma (Section 1)
- PReCePT Magnet Instructions (Section 1)
- QI Learning Log (Section 4)

# About this Quality Improvement Toolkit



## Adapting resources

Most of the materials described above are ready-made for immediate use. However, there are two documents that you may wish to consider customising to local requirements:

- 1. Parent Leaflet** – this document can be re-created in accordance with your Trust corporate template. However, please ensure the text is preserved as it has been co-designed with significant patient and public (PPI) contribution.
- 2. Staff 'PRECEPT Training' Presentation** – as each local staff training plan is created, it may be appropriate to make minor edits to this PowerPoint presentation for different staff groups or to align with different lengths of training sessions. In making changes, ensure key messages are preserved and undiluted.

## Queries

Please contact your Midwife Lead, Regional Neonatal Lead or your local AHSN PRECEPT Lead for further support to ensure your success in implementing PRECEPT.

Alternatively, email the PRECEPT team at the West of England AHSN who can put you in touch with your local contact: [precept@weahsn.net](mailto:precept@weahsn.net).



# Contents



## **Section 1. Clinical Information**

- Introduction to PReCePT Evidence
- Summary of Key Research Paper
- PReCePT Clinical Guidance for the Management of Suspected Preterm Labour
- PReCePT Magnesium Sulphate Quick Reference
- PReCePT Management of Preterm Labour Proforma
- PReCePT Magnet Instructions

## **Section 2. Posters**

- PReCePT Infographic
- Poster: Think Magnesium Sulphate Too
- The PReCePT Dashboard and how to use it

## **Section 3. Parent Information**

- Parent Information Leaflet

## **Section 4. Quality Improvement**

- QI Learning Log
- Staff 'PReCePT Training' Presentation: What, Where and How

## **Section 5. Key Roles**

- Maternity Unit Midwife Lead Role
- Maternity Unit Obstetrician Lead Role
- Regional Neonatal Lead Role

## **Section 6. Glossary and Abbreviations**





# Section 1.

## Clinical Information

### Documents in this section:

- Introduction to PReCePT Evidence
- Summary of Key Research Papers
- PReCePT Clinical Guidance for the Management of Suspected Preterm Labour
- PReCePT Magnesium Sulphate Quick Reference
- PReCePT Management of Preterm Labour Proforma
- PReCePT Magnet Instructions

# Introduction to PReCePT Evidence



Babies born too early (preterm) are at an increased risk of dying in the first weeks of life, and those who survive may suffer from varying degrees of cerebral palsy, blindness, deafness or physical disabilities.

Antenatal magnesium sulphate given prior to preterm birth for fetal neuroprotection prevents cerebral palsy and reduces the combined risk of infant death or cerebral palsy.<sup>1</sup>

The Royal College of Obstetricians and Gynaecologists notes that the prevalence of preterm birth is increasing, and whilst the survival of infants born prematurely has improved, the number of infants developing cerebral palsy has risen.<sup>2</sup>

Twenty-five percent of all cases of cerebral palsy are in infants born at less than 34 weeks of gestation<sup>3</sup>. In children born preterm the proportion whose cerebral palsy is considered to have a perinatal origin (49%) is greater than in those born at term (35%)<sup>4,5</sup>. Strategies to reduce cerebral palsy in these infants should be considered and implemented if shown to be effective in order to reduce the effects of this disabling condition on individuals, families, health care and society.

The incidence of cerebral palsy decreases significantly with increasing gestational age:

14.6% at 22–27 weeks of gestation  
6.2% at 28–31 weeks  
0.7% at 32–36 weeks and  
0.1% in term infants.<sup>6</sup>

The Cochrane Review established that magnesium sulphate given to women at risk of preterm birth has neuro-protective functionality and improves long-term outcomes for their infant. In addition, it also found that magnesium sulphate is safe to administer to the mother for this purpose.<sup>1</sup>

The most recent review published in the Public Library of Science (PLOS) suggests that as few as 42 women in preterm labour would be needed to treat with magnesium sulphate to prevent one case of cerebral palsy<sup>7</sup>.

The National Institute for Health and Care Excellence (NICE) guidelines recommends giving magnesium sulphate at less than 30 weeks gestation, with consideration being given to use up to 33<sup>+6</sup> weeks gestation<sup>8</sup>. Widespread adoption of these recommendations could lead to significant health benefits.

A quality improvement (QI) project (PReventing Cerebral palsy in Pre Term labour (PReCePT)) was carried out in the West of England, UK, to raise awareness of evidence and to improve the uptake of magnesium sulphate as neuroprotectant in preterm deliveries. This project appears to have had a favourable effect on the uptake of magnesium sulphate across the West of England.<sup>9</sup>

## References

1. Doyle LW, Crowther CA, Middleton P, Marret S, Rouse D. Magnesium sulphate for women at risk of preterm birth for neuroprotection of the fetus. Cochrane Database of Systematic Reviews 2009, Issue 1. Art. No.: CD004661. DOI: 10.1002/14651858.CD004661.pub3. Available at <http://summaries.cochrane.org/CD004661/magnesium-sulphate-for-women-at-risk-of-preterm-birth-for-neuroprotection-of-the-fetus>
2. Magnesium Sulphate to Prevent Cerebral Palsy following Preterm Birth: Scientific Impact Paper 29: Royal College of Obstetricians and Gynaecologists; August 2011
3. Conde-Agudelo A, Romero R. Antenatal magnesium sulfate for the prevention of cerebral palsy in preterm infants less than 34 weeks' gestation: a systematic review and metaanalysis. *Am J Obstet Gynecol* 2009;200:595–609.
4. Himmelmann K, Hagberg G, Beckung E, Hagberg B, Uvebrant P. The changing panorama of cerebral palsy in Sweden. IX. Prevalence and origin in the birth-year period 1995–1998. *Acta Paediatr* 2005;94:287–94.
5. Knight DB, Gardener GJ. What gestation cut-off should be used for magnesium sulfate treatment of women threatening to deliver preterm? *Am J Obstet Gynecol* 2010;202:e9.
6. Himpens E, Van den Broeck C, Oostra A, Calders P, Vanhaesebrouck P. Prevalence, type, distribution, and severity of cerebral palsy in relation to gestational age: a meta-analytic review. *Dev Med Child Neurol* 2008;50:334–40.
7. Crowther CA, Middleton PF, Voysey M, Askie L, Duley L, Pryde PG, Marret S, Doyle LW; AMICABLE Group. Assessing the neuroprotective benefits for babies of antenatal magnesium sulphate: An individual participant data meta-analysis. *PLoS Med*. 2017 Oct 4;14(10):e1002398. doi: 10.1371/journal.pmed.1002398.
8. NICE Guideline 25: Preterm labour and birth: National Institute for Health and Care Excellence; 2015; Available at <https://www.nice.org.uk/Guidance/NG25>
9. Burhouse A, et al. Preventing cerebral palsy in preterm labour: a multi-organisational quality improvement approach to the adoption and spread of magnesium sulphate for neuroprotection. *BMJ Open Quality*. July 2017- Volume 6, issue 2

# Summary of Key Research Paper



Crowther CA, Middleton PF, Voysey M, Askie L, Duley L, Pryde PG, Marret S, Doyle LW; AMICABLE Group. Assessing the neuroprotective benefits for babies of antenatal magnesium sulphate: An individual participant data meta-analysis. *PLoS Med.* 2017 Oct 4;14(10):e1002398. doi: 10.1371/journal.pmed.1002398.

Available at <http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002398>

## Abstract

Five trials were eligible for this review (6131 babies). In the analysis restricted to data from the four trials in which the intent of treatment was fetal neuroprotection, there was a significant reduction in the risk of death or cerebral palsy with magnesium sulphate treatment compared with no treatment (RR 0.86, 95% CI 0.75 to 0.99, 4,448 babies, 4 trials). The number needed to treat (NNT) to benefit was 41 women to prevent 1 baby from either dying or having cerebral palsy. For cerebral palsy in survivors, magnesium sulphate treatment had a strong protective effect (RR 0.68, 95% CI 0.53 to 0.87, 3,988 babies, 4 trials). NNT to benefit was 42 women to prevent 1 baby from having cerebral palsy. No statistically significant effect of antenatal magnesium sulphate therapy was detected on paediatric mortality (RR 1.03; 95% CI 0.91 to 1.17; five trials; 6131 infants).

Benefit is seen regardless of the reason for preterm birth, with similar effects across a range of preterm gestational ages and different treatment regimens, including time from starting magnesium treatment until birth, the total dose received, or whether maintenance treatment was received.

## Authors' conclusions

The study findings reaffirms that for women at risk of imminent preterm birth, antenatal magnesium sulphate reduces the risk of their baby developing cerebral palsy. Importantly, this benefit is not at the expense of an increase in mortality for the baby, and there appears to be no substantial short or long term complications for the mother or fetus from treatment with antenatal magnesium sulphate. As there is minimal variation in outcomes related to time to birth and with dosage, it would be prudent to restrict administration of antenatal magnesium sulphate for fetal neuroprotection to close to the expected or planned birth and to use 4g, the smallest effective dose, with or without a 1g/hour maintenance dose.

Antenatal magnesium sulphate is a relatively inexpensive, easy to administer, effective treatment that can reduce the burden of death and cerebral palsy facing babies born very preterm.



# PReCePT Guidance for the Management of Suspected Preterm Labour



## Baseline assessment (refer to Trust guidance):

- History of previous preterm birth
- Abdominal palpation: Assess FH rate. Commence CTG if 26/40 or more
- Sterile speculum examination (no lubricant or antiseptic solution): HVS/NAATS (for detection of STI's) +/- Vaginal Examination
- Fetal Fibronectin/Actim partus – if membranes not ruptured
- Urinalysis and sterile urine sample for MC&S
- Blood tests: FBC & CRP
- USS: presentation, AFI, +/- EFW, +/- cervical length

## Diagnosis of preterm labour (refer to Trust guidance) 23-37 weeks:

Painful uterine contractions 1:10 or more frequent

Plus one or more of the following:

- Rupture of membranes
- Cervical change on vaginal examination
- Cervical length < 15mm on trans-vaginal USS
- Positive Actim Partus/Fetal fibronectin

For senior obstetric (Consultant where possible) and neonatal review within 24 hours of admission

## Commence PReCePT Management of Preterm Labour Proforma

### Magnesium sulphate:

To be offered to all women less than 30 weeks gestation and at risk of early preterm birth, except when birth is urgent (birth should not be delayed to administer MgSO<sub>4</sub>). Consider for women from 30<sup>+0</sup> to 33<sup>+6</sup> gestation.

### Regimen:

- Administer 4g IV loading dose then 1g/hour IV maintenance dose (loading dose alone may still be beneficial if birth occurs before maintenance dose commenced)
- Continue until birth or for a maximum of 24 hours
- Monitor maternal reflexes, observations and urine output as per local guidelines for MgSO<sub>4</sub>

### If transfer is necessary:

- Magnesium sulphate loading dose should be given prior to transport
- Continue maintenance dose until ambulance arrives
- Stop maintenance dose during transfer.
- Reassess on arrival at tertiary unit for commencement of maintenance dose.

### Steroids: To be offered 23-34 weeks gestation

- Administer 2 doses of betamethasone (12mg IM)
- Give 24 hours apart (maybe given 12 hours apart if likely to give birth earlier than 24 hours)
- Discuss with consultant for repeated courses

### Tocolysis: Administer Atosiban or Nifedipine according to local guidelines. Most useful when:

- Need to transfer
  - Very preterm
  - Not completed steroid course
- If considering tocolysis, also consider magnesium sulphate

### Antibiotics:

- If Preterm Prelabour Ruptured Membranes (PPROM) give Erythromycin 250mg QDS for 10 days or until birth
- Offer Intrapartum Antibiotic Prophylaxis for Group B Streptococcus in confirmed preterm labour
- If signs of sepsis: Urine/blood/genital samples for MC&S and commence broad spectrum antibiotics
- Management of preterm infants and IV antibiotics as per local guidelines

**In utero transfer:** Consider need for transfer (intrauterine transfer is preferable to extra uterine) as long as there is no acute fetal compromise/severe maternal illness/imminent risk of birth.

**Communication:** Discuss with transferring consultant/senior obstetrician and receiving NICU Nurse in charge, neonatal registrar, CDS Co-ordinator and obstetric registrar.

**Documentation:** Complete PReCePT management of preterm labour proforma in line with local practice.

**For references and footnotes please see overleaf**

# PReCePT Guidance for the Management of Suspected Preterm Labour



## References:

- The Antenatal Magnesium Sulphate for Neuroprotection Guideline Development Panel.
- Antenatal magnesium sulphate prior to preterm birth for neuroprotection of the fetus, infant and child: National clinical practice guidelines. Adelaide: The University of Adelaide, 2010.
- RCOG Scientific impact paper No.29. Magnesium Sulphate to prevent cerebral palsy following preterm birth. (Aug 2011).
- NICE Preterm labour guidance. 2015.
- RCOG GBS guidance 2017. Green top No 36, Sept 2017.

## Declaration:

These Clinical Practice Guidelines have been prepared with reference to published evidence available at the time of its preparation.

The West of England AHSN takes no responsibility for matters arising from changed circumstances or information that may have become available after the issued or review date.

It is the responsibility of each member of staff to be fully informed of the particular circumstances of each case, and the application of Clinical Practice Guidelines in each case.

Other than cases involving death or personal injury arising as a result of the negligence of the West of England AHSN, any liability for loss or damage resulting from the use of reliance on the information contained in this leaflet is excluded.

The West of England AHSN is an operating division of the Royal United Hospitals Bath NHS Foundation Trust.

# PReCePT Magnesium Sulphate

## Quick Reference



### **Magnesium sulphate:**

To be offered to all women less than 30 weeks gestation and at risk of early preterm birth, except when birth is urgent (birth should not be delayed to administer MgSO<sub>4</sub>). Consider for women from 30<sup>+0</sup> to 33<sup>+6</sup> gestation.

### **Regimen:**

- Administer 4g IV loading dose then 1g/hour IV maintenance dose (loading dose alone may still be beneficial if birth occurs before maintenance dose commenced)
- Continue until birth or for a maximum of 24 hours
- Monitor maternal reflexes, observations and urine output as per local guidelines for MgSO<sub>4</sub>.

### **If transfer is necessary:**

- Magnesium sulphate loading dose should be given prior to transport
- Continue maintenance dose until ambulance arrives
- Stop maintenance dose during transfer.
- Reassess on arrival at tertiary unit for recommencement of maintenance dose.

### **References:**

The Antenatal Magnesium Sulphate for Neuroprotection Guideline Development Panel. Antenatal magnesium sulphate prior to preterm birth for neuroprotection of the fetus, infant and child: National clinical practice guidelines. Adelaide: The University of Adelaide, 2010. RCOG Scientific impact paper No.29. Magnesium Sulphate to prevent cerebral palsy following preterm birth. (Aug 2011). NICE Preterm labour guidance. 2015. RCOG GBS guidance 2017. Green top No 36, Sept 2017.

**Footnote:** These Clinical Practice Guidelines have been prepared with reference to published evidence available at the time of its preparation. The West of England AHSN takes no responsibility for matters arising from changed circumstances or information that may have become available after the issued or review date. It is the responsibility of each member of staff to be fully informed of the particular circumstances of each case, and the application of Clinical Practice Guidelines in each case. Other than cases involving death or personal injury arising as a result of the negligence of the West of England AHSN, any liability for loss or damage resulting from the use of reliance on the information contained in this leaflet is excluded. The West of England AHSN is an operating division of the Royal United Hospitals Bath NHS Foundation Trust.

# Example of PReCePT Management of Preterm Labour Proforma for local adaptation



Date:				Mother's ID sticker			
<b>Baseline assessment</b>							
Abdominal Palpation:							
FH rate:		CTG (if 26 weeks or more):		Normal	Suspicious		Pathological
EDD by USS/dates:					Gestation:		
<b>Sterile speculum performed (no lubricant or antiseptic)</b>							
SRM:	Yes/No	LVS/ HVS taken:	Date:	Time:		NAATs taken:	Yes/No
<b>Vaginal examination</b>							
Actim Partus/ Fetal fibronectin test:			Positive			Negative	
USS:		Presentation:			Cervical Length (if applicable):		
<b>Steroids:</b>	Betamethasone <input type="checkbox"/>		Dexamethasone <input type="checkbox"/>		Reason if Dex:		
1 <sup>st</sup> Dose:	Date:		Time:		2 <sup>nd</sup> Dose:	Date:	Time:
<b>Tocolytics:</b>	Atosiban	Nifedipine	Other (specify)			Date:	Time:
<b>Magnesium Sulphate given for neuroprotection</b> (To be offered to all women less than 30 weeks, except when birth is urgent. Consider between 30+0 and 33+6 weeks gestation)							
<input type="checkbox"/> Yes		<input type="checkbox"/> No (see below)			<input type="checkbox"/> Unknown		
		<input type="radio"/> Urgent (less than one hour to birth)					
		<input type="radio"/> Treatment contraindicated					
		<input type="radio"/> Mother declined					
		<input type="radio"/> Not offered					
<b>Loading Dose:</b> 4g Magnesium Sulphate given as bolus over 5 – 10 mins:							
Date:				Time:			
<b>Maintenance Dose:</b> Magnesium Sulphate 1g/hr until birth or for a maximum of 24hrs (date and time started):							
Date:				Time:			
MSU		Date:		Time:			
Bloods taken:		FBC (result):			CRP (result):		
Relevant obstetric history:							
<b>Antibiotics (if indicated): 1st Dose</b>				<b>Date:</b>			
				<b>Time:</b>			
<b>Discussed with Consultant/Senior Obstetrician?</b> Yes / No				<b>Discussed with Senior Neonatologist?</b> Yes / No			
<b>Name:</b>				<b>Name:</b>			
<b>Date:</b>		<b>Time:</b>		<b>Date:</b>		<b>Time:</b>	
<b>Plan in notes:</b> Yes/No				<b>Plan in notes:</b> Yes/No			
<b>Form completed by:</b>				<b>Designation:</b>			

To be attached to mother's handheld notes or filed electronically in line with local practice.



# PReCePT Magnet: Instructions



## What is the PReCePT Magnet for?

The PReCePT Magnet system acts as a visual prompt and alert to clinicians that a mother of less than 30 weeks gestation has been admitted to the maternity unit (in the Assessment Unit, triage, antenatal ward or labour ward). The PReCePT Magnet will be used to prompt obstetricians and midwives to administer magnesium sulphate to women who they suspect will give birth prematurely, with the aim of reducing the risk of their infant developing cerebral palsy.

It is designed to enhance the PReCePT magnesium sulphate pathway. Its use is optional, as suits each maternity unit.

## Why are we using the PReCePT Magnet?


The PReCePT Magnet will act as a reminder for the clinical team involved in the care of women in pre-term labour (or women at the first sign of birth before 30 weeks), to consider administering magnesium sulphate **for neuroprotection as per the** PReCePT magnesium sulphate pathway.

## How do we use the PReCePT Magnet?

- Mother is admitted in suspected preterm labour
- Mother's name is written on the whiteboard (in the Assessment Unit, triage, antenatal ward or labour ward). If she is less than 30 weeks gestation, the PReCePT Magnet should be placed on the board next to her name by lead clinician or another predetermined member of staff.
- The PReCePT Magnet triggers administration of magnesium sulphate (if appropriate) and also the use of the PReCePT Preterm Labour Pro-forma.
- Pro-forma is attached securely into the mother's yellow maternity notes.

## Where can I get more magnets?

Your local PReCePT project contact will be able to supply your unit with PReCePT magnets.

MATERNITY ASSESSMENT UNIT			
Room	Patient	Doctor	Time
1	Patient A	Dr B	9.20am
2	Patient B 	Dr B	10.47am
3	Patient C	Dr C	1.30pm
4			
5			





# Section 2.

## Posters

Documents in this section:

- PReCePT Infographic
- Poster: Think Magnesium Sulphate Too
- The PReCePT Dashboard and how to use it



# PReCePT

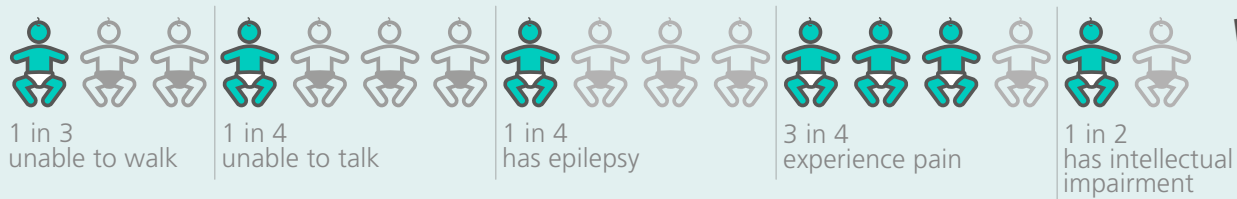


## Preterm births are increasing

More premature babies than ever before are surviving, but the number with cerebral palsy continues to increase

## Cerebral palsy affects around 1 in every 400 babies\*

nationally this was approximately 1,937 babies in 2016



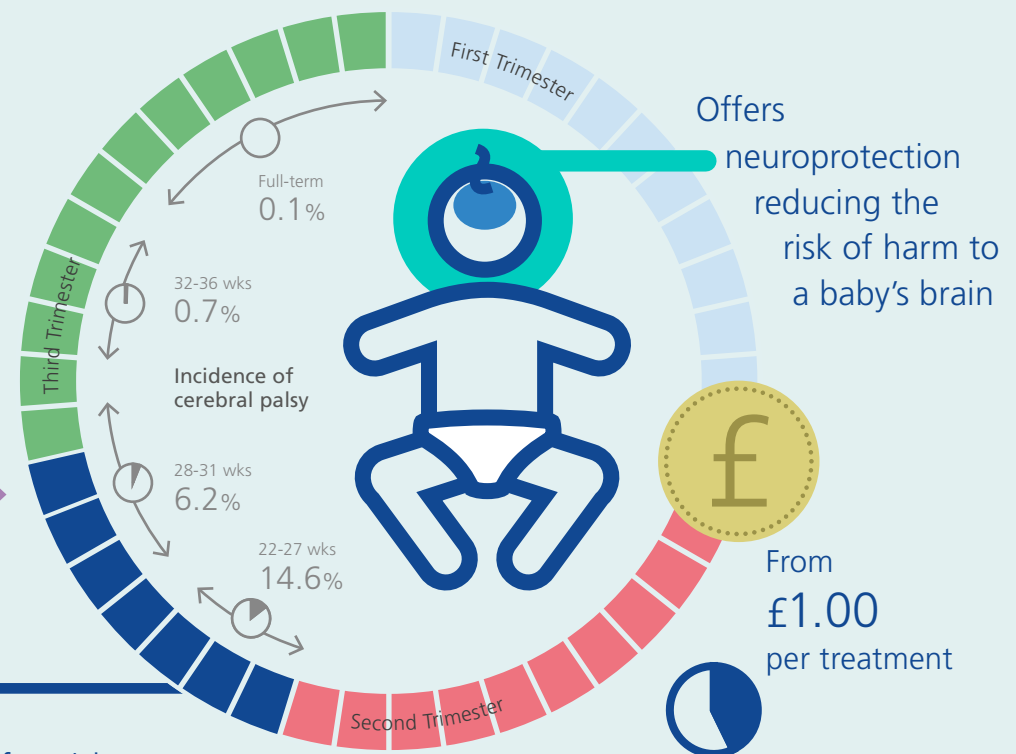
Just under half are born prematurely.

[MgSO<sub>4</sub>]

## Magnesium Sulphate

Proven to be effective at reducing risk of developing cerebral palsy in babies born before 30 weeks

By around 30%



If we treated all mothers of at risk babies, we could prevent 200-300 babies per year from developing cerebral palsy in the UK

On average only 43% of eligible mothers received MgSO<sub>4</sub> in 2016



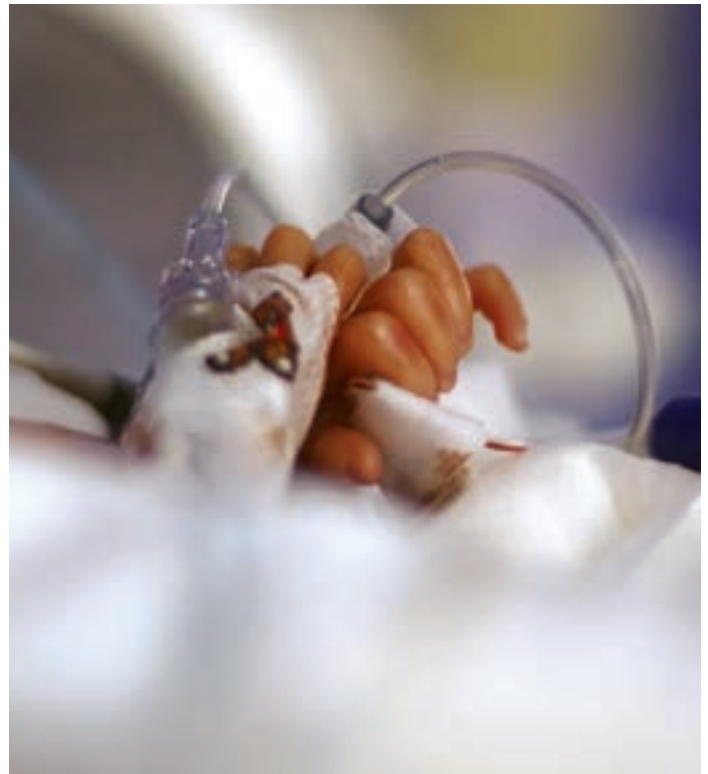
\*There is a lot of variation regionally, nationally and internationally (driven by definitional issues, particularly at the less complex end of the condition, and genuine differences in underlying epidemiology).



# Thinking steroids?

Think  
magnesium  
sulphate too.

Think  
reduction in  
cerebral palsy.



When preterm labour has been diagnosed or preterm delivery is planned: remember magnesium sulphate may prevent cerebral palsy in preterm babies.

Offer magnesium sulphate to all women less than 30 weeks gestation who are at risk of preterm birth (except when birth is urgent) including when Caesarean section is planned.

# The PReCePT Dashboard and how to use it



The following four pages illustrate the PReCePT Dashboard and its component parts. It is made up of two posters, which are designed to be printed for display in your unit. Their purpose is to record and display progress on the uptake of administration of magnesium sulphate in your unit for eligible births, and how unit training is progressing against your plan.

The PReCePT Midwife Lead, or another member of staff in your unit, will need to enter the numbers each month for project activity in your unit. This is explained further below.

It is important to highlight that this is intended for your own use and feedback, and serves to highlight to staff, and possibly parents too, the work that is being done behind the scenes to help prevent cases of cerebral palsy in preterm births for women of less than 30 weeks gestation.

The Dashboard itself is an Excel spreadsheet and can be viewed and downloaded from the AHSN Network website at [www.ahsnnetwork.com/precept/](http://www.ahsnnetwork.com/precept/)

The Dashboard is arranged across four Excel tabs. These are shown over the next four pages in PDF format with fictitious sample data. The four tabs are as follows:

1. The first tab contains step-by-step instructions on how to use the Dashboard
2. The second tab – the data tab – is the only one you will need to edit by inputting your unit numbers each month.

Your monthly unit numbers should be sourced from BadgerNet. Instructions on how to do this can be downloaded from the AHSN Network website at [www.ahsnnetwork.com/precept/](http://www.ahsnnetwork.com/precept/)

The monthly unit numbers you will need to input are:

- number of babies admitted (less than 30 weeks gestation) where mother given magnesium sulphate within 24 hours of delivery
- number of babies admitted (less than 30 weeks gestation)
- number of staff trained
- number of babies admitted (less than 30 weeks gestation) where mother not given magnesium sulphate within 24 hours of delivery, with the reason

3. The third tab displays data in graphical format and automatically updates with numbers added into the 'Data' tab. This can be printed as a poster for display.
4. The fourth tab also displays data in graphical format. Like the third tab, it also automatically updates with numbers added into the 'Data' tab, and can be printed as a poster for display.

We recommend tabs 3 and 4 are printed as A4 posters for display in your unit to serve as a visual reminder of the PReCePT initiative and as a tool for discussion with staff and possibly parents.

Once you have started planning PReCePT implementation in your unit, you may wish to adapt the Dashboard to add in other measures.

## How to use this spreadsheet

This template has been created to help you track and demonstrate your monthly performance. We have tried to make it as easy to use as possible. Please read the instructions on this page. This dashboard is designed to capture core project numbers. It can be locally adapted to include additional measures, if that is agreed in your unit.

## Data tab (see bottom of Excel screen for 'Tab 2 Data ONLY EDIT THIS TAB')

The data tab is where you will input the core project numbers for your maternity unit each month. **This is the only tab that will need to be edited and you only need to enter data in the orange cells (boxes).**

1. Insert the name of your maternity unit and contact person. This information will only need to be entered once at the beginning, unless the information changes.
2. Enter the monthly project numbers in the orange cells each month. Your monthly project numbers should be sourced from BadgerNet. Instructions on how to do this can be downloaded from the AHSN Network website at [www.ahsnnetwork.com/precept/](http://www.ahsnnetwork.com/precept/). Select the current month from the drop down menu at the top of the page.
3. Enter the relevant data for the number of staff in your unit and the unit stretch target. This information will only need to be entered once into the orange box and will automatically populate all other relevant cells. Please liaise with your PReCePT AHSN contact for your unit stretch target.

**N.B.** If your unit has a stretch target, this will be aligned with the antenatal steroid update for your unit (as reported in NNAP data). You will be advised on this by your PReCePT contact.

**N.B.** Please do not make any changes to this tab outside of the orange cells as this may affect the formatting.

## Dashboard tabs (see bottom of Excel screen for 'Tab 3 Dashboard-monthly numbers' and 'Tab 4 Dashboard-missed tabs')

The monthly numbers dashboard is a printable poster showing the overall monthly performance for the current month and ongoing over the course of the project. The missed dashboard is a printable poster showing numbers of women who delivered at less than 30 weeks gestation who were not given magnesium sulphate and the reasons why for the current month and ongoing over the course of the project.

**N.B.** The charts, tables and text will all automatically update once you have entered the monthly numbers in the data tab and selected the current month from the drop down in the data tab. **You will not need to edit the dashboard tabs, only the data tab.**

## Printing

Once you have entered the numbers and selected the current month on the data tab you are ready to print. Print settings have been saved to print each dashboard tab as an A4 landscape poster. If this doesn't work, please follow the instructions below.

1. Use your mouse to select cells A - N 1-34
2. Go to File/Print
3. Ensure the print settings are:
  - \* Print in colour
  - \* Print selection 'only print the current selection'
  - \* Landscape orientation
  - \* A4
  - \* Custom margins with top margin set at 0.8 (all other margins can remain as standard)
  - \* No scaling
4. Repeat the above for each dashboard and display the posters in your unit!

## Saving this document

Each month after you add the monthly project numbers you can simply save over the top of this document and the data will accumulate. You do not need to save a new separate version each month.

**Data for pReCePT monthly performance reports**

This month is

February 2019

Name of maternity unit	Babytown Hospital
Name of maternity unit contact	Florence Nightingale

	No. of babies admitted (less than 30 weeks gestation) where mother given magnesium sulphate within 24 hours of delivery	No. of babies admitted (less than 30 weeks gestation)	Target	Stretch target	Percentage of babies admitted (less than 30 weeks gestation) where mother given magnesium sulphate within 24 hours of delivery
September 2018	36	100	85%	95%	36%
October 2018	38	100	85%	95%	38%
November 2018	45	100	85%	95%	45%
December 2018	67	100	85%	95%	67%
January 2019	84	100	85%	95%	84%
February 2019	86	100	85%	95%	86%
March 2019				95%	#N/A
April 2019			85%	95%	#N/A
May 2019			85%	95%	#N/A
Total	356	600	n/a	n/a	n/a

**Only enter data in the orange cells**

	No. of staff trained (per month)	No. of staff trained (cumulative)	Total number of staff to be trained	Percentage of staff trained
September 2018	0	0	100	0%
October 2018	0	0	100	0%
November 2018	40	40	100	40%
December 2018	20	60	100	60%
January 2019	20	80	100	80%
February 2019	10	90	100	90%
March 2019		#N/A	100	#N/A
April 2019		#N/A	100	#N/A
May 2019		#N/A	100	#N/A

	Delivery imminent	Declined by mother	Not offered	Contraindicated	Other	Total
September 2018	12	16	21	7	8	64
October 2018	8	13	26	7	8	62
November 2018	6	4	22	19	4	55
December 2018	9	2	14	7	1	33
January 2019	0	1	12	2	1	16
February 2019	0	4	7	2	1	14
March 2019						0
April 2019						0

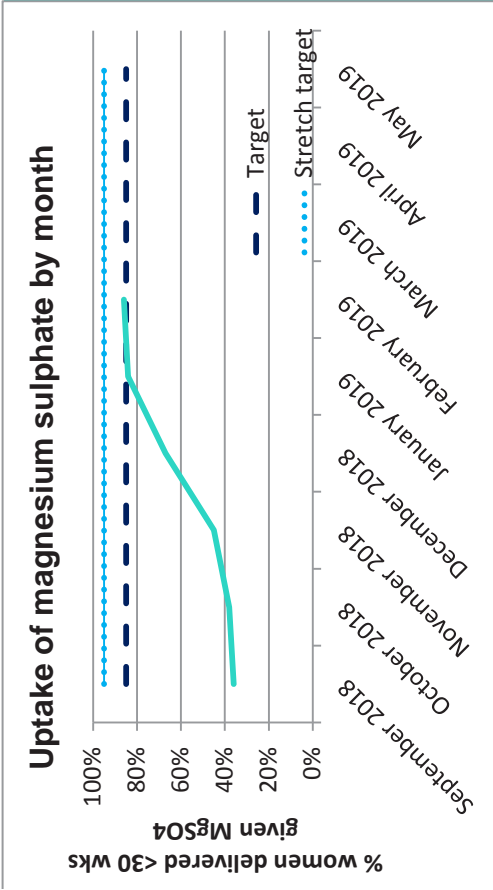


# PRECEPT: How are we doing this month?

Prevention of Cerebral Palsy in preterm labour

Babytown Hospital

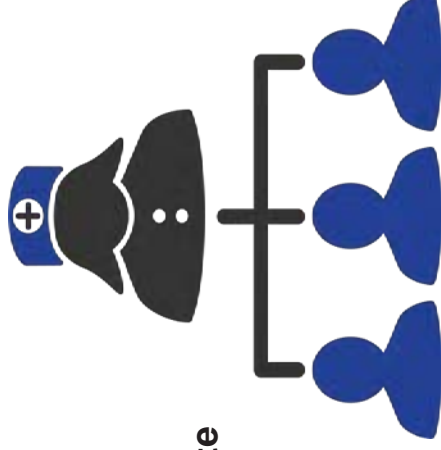
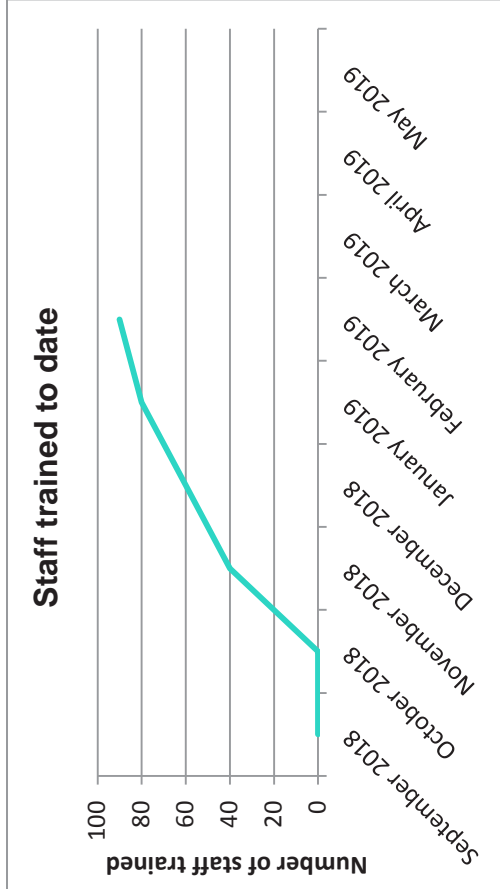
February 2019



86% uptake rate in February 2019

100 eligible births in February 2019

For women delivering before 30 weeks gestation



90% staff trained to date





# PreCePT: How are we doing this month?

Prevention of Cerebral Palsy in preterm labour

Number of eligible women not given magnesium sulphate

February 2019

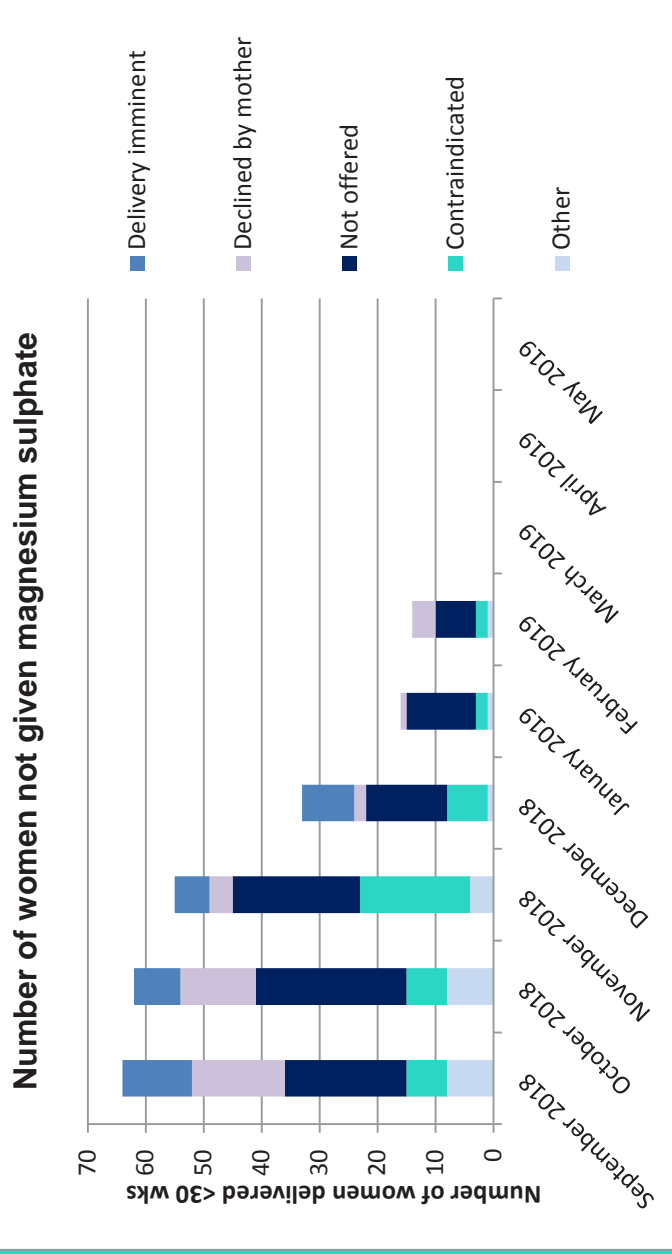
Babytown Hospital

86% uptake rate in February 2019



100 eligible births in February 2019

## For women less than 30 weeks gestation



If you want to find out more speak to Florence Nightingale



# Section 3.

## Parent Information

Document in this section:

- Parent Information Leaflet



## Is every woman offered magnesium sulphate?

Magnesium sulphate is not suitable for all women. It may be offered to women who are up to 30 weeks pregnant and who are likely to give birth within the next 24 hours. Your doctor and midwife will discuss this with you and answer any questions that you may have.

Magnesium sulphate needs to be given at some time within the 24 hours before giving birth for it to have full effect, but it still may have some benefit if given at any time before birth. If your baby needs to be born urgently (within the hour) then giving magnesium sulphate may not be an option.

## Do I have to have magnesium sulphate if I am going to have my baby early?

Treatment is not compulsory and you can decide not to have it, but it is a good idea to make sure you understand how magnesium sulphate may protect your baby as well as the effects it may have on you before you make your decision.

You can talk to your doctor and midwife for more information on magnesium sulphate, premature labour and what this means for your baby. It is important that you feel that you have all of the information you need to make the right decisions for you and your baby.

## Where can I get more information on premature birth and what this means for my baby?

You can ask the midwives if they can arrange for you to meet with a neonatologist (a newborn baby doctor) who can answer your questions about what you can expect to happen after your baby is born. You may also be able to visit the Neonatal Intensive Care Unit to see where your baby will be cared for.

Bliss, the special care baby charity, provides a wealth of information and support for premature and sick babies and their families.

Please visit their website [bliss.org.uk](http://bliss.org.uk) or call the Bliss family helpline, on **0500 618140** (Monday to Friday 9.00am-9.00pm, freephone from landlines).

For callers who are deaf or hard of hearing, it is easy to access the Helpline via Text Relay by calling **018001 0500 618140**.

Bliss is a member of Language Line, the telephone interpreting service that has access to qualified interpreters in over 170 languages.

If you need this leaflet in a large text please ask a member of staff.

March 2018



Bliss has not funded this project

Reference: NICE Guideline 25: Preterm labour and birth: National Institute for Health and Care Excellence; 2015; Available at <https://www.nice.org.uk/Guidance/NG25>

# Having a baby before 30 weeks: magnesium sulphate as protection against cerebral palsy



## What is this leaflet about?

This leaflet gives information about magnesium sulphate. It is offered to some women who have to give birth to their baby earlier than 30 weeks as it can protect some babies against developing cerebral palsy. This leaflet is for all parents who may have a chance of their baby being born before 30 weeks of pregnancy.

Every year over 8,500 women in the UK give birth very early because of complications with their pregnancy. About one per cent of babies every year are born before 30 weeks and are considered very premature.

## What does it mean if my baby is born early?

Being told that you might give birth early can be a confusing and worrying time for you and your family. Your doctors and midwives will talk to you about the risks of early birth and they can help you to make decisions about your baby's care.

A small number of premature babies can develop long term problems which can affect their brain resulting in cerebral palsy or problems with sight and hearing.

## What is cerebral palsy?

Cerebral palsy is a general term describing conditions that cause problems with movement. It is caused by harm to the

brain during development, and there is a higher risk of this when a baby has been born prematurely. Cerebral palsy will affect children in different ways and to different degrees. It can often take time to work out how a child is affected and babies who are born early will need to have regular check-ups to monitor their development.

About one in ten babies of very low birth weight develop a form of cerebral palsy.

## What can be done to prevent cerebral palsy?

Unfortunately, we don't know how to stop all babies developing cerebral palsy or how to cure it. However, we do know that giving magnesium sulphate to women can decrease the risk that their baby will develop cerebral palsy. Magnesium sulphate is a neuroprotector, which means that it can offer some protection to a baby's brain, when we know that there is a strong chance that the baby may be born early.

## What are the risks of taking magnesium sulphate?

Women who are given Magnesium Sulphate may experience some short-term effects. The most likely side effect is feeling nauseous and/or vomiting and headaches. However, you will be monitored for the less likely side effects, such as low blood pressure or problems with your breathing.

There are no increased risks to a premature baby when the mother is given magnesium sulphate. In fact we know that the baby is likely to benefit from it and be less likely to develop cerebral palsy.

## How will I get magnesium sulphate?

The doctor or midwife will put an intravenous drip in your arm. The first dose will be given to you as a single amount over 10-20 minutes and then a second dose is given to you over a 24-hour period. You will be monitored closely throughout. If you do not have your baby within the next 24 hours, the doctor may consider giving you another dose of magnesium sulphate.

## Does magnesium sulphate stop all babies getting cerebral palsy?

No, despite our best efforts, some babies will still go on to develop cerebral palsy, even though their mothers have been given magnesium sulphate.

Research has shown that magnesium sulphate is very effective at reducing the risk of infants born before 30 weeks of developing cerebral palsy by around 50%.

Whilst cerebral palsy cannot be cured, there is lots of support from specialist teams to help those affected by the condition.



# Section 4.

## Quality Improvement

Documents in this section:

- QI Learning Log
- Staff 'PRECEPT Training' Presentation:  
What, Where and How



## **PReCePT - Prevention of Cerebral Palsy in PreTerm Labour**

### **Quality Improvement Learning Log Guide**

This purpose of this learning log is to record improvement activity, learning and reflections from implementation of the PReCePT project in your maternity unit to:

- Capture lessons learned
- Inform the approach of future improvement initiatives, and
- Contribute to the evaluation of PReCePT

The PReCePT project was successfully implemented in the West of England using a Quality Improvement approach based on the 'Model for Improvement', developed by the Institute for Healthcare Improvement. A key component of this is the Plan-Do-Study-Act (PDSA) cycle. This is shorthand for testing a change – by planning it, trying it, observing the results, and acting on what is learned.

Record your PDSA steps in the following template, using a new template for each cycle. This template is available in both PDF and Word format on [the national AHSN Network website](#) or via your local PReCePT contact. You will also find QI resources on Life QI.

If you have **any immediate clinical concerns** regarding a patient's safety or wellbeing please escalate via normal channels.

Reference:

<http://www.ihl.org/resources/Pages/HowtoImprove/default.aspx>

# PReCePT Quality Improvement Learning Log



**PDSA cycle number:**

**Date:**

**Author:**

**Aim:** What are you trying to accomplish? What issue would you like to improve?

**Plan:** What will your test be? How could the issue be resolved? What could be introduced to make an improvement? Who is a useful contact to support you with this improvement? What data will you collect to know if the change has made a difference?

**Prediction:** What do you think will happen as a result of your test?

**Do:** What happened when you carried out your test? What did the data show?



**Study:** How did the results of your test compare with predictions? Has the change been an improvement? What have you learnt from making this change? Do you have any tips for other improvers?

**Act:** Next steps: Is there is still room for improvement? What will you do next?

**Learning and reflections:** What worked well? What would you do different next time? Any other points to record?



# PReCePT Training' Presentation: What, Where and How



A presentation has been created for training staff on PReCePT. It includes the evidence, facts and figures, PReCePT story so far, as well as clinical and operational guidance.

The presentation can be viewed and downloaded in PowerPoint format on the AHSN Network website at [www.ahsnnetwork.com/precept/](http://www.ahsnnetwork.com/precept/). Copies are not included in this Toolkit.

## **Adapting resources:**

As each local staff training plan is created, it may be appropriate to edit the PowerPoint presentation for different staff groups or to align with different lengths of training session.

This approach was used in maternity units that took part in the first PReCePT project in the West of England, with beneficial effects in terms of maximising staff engagement and available training time.

In making changes, ensure key messages are preserved and undiluted.

## **Queries:**

Please contact your Midwife Lead, Regional Neonatal Lead or your local AHSN PReCePT Lead for further support to ensure your success in implementing PReCePT.

Alternatively, email the PReCePT team at the West of England AHSN who can put you in touch with your local contact: [precept@weahsn.net](mailto:precept@weahsn.net).



# Section 5.

## Key Roles

Documents in this section:

- Maternity Unit Midwife Lead Role
- Maternity Unit Obstetric Lead Role
- Regional Neonatal Lead Role

# Maternity Unit Midwife Lead Role Description



The PReCePT Midwife Lead will act as the primary local agent to successfully embed the use of the Magnesium Sulphate (MgSO<sub>4</sub>) pathway in their Trust such that it becomes a sustainable part of ongoing practice. In order to do this, the post-holder will fully understand background and requirements and will champion the project within their own department and Trust. S/he will complete the following:

- Develop a working plan in partnership with the AHSN PReCePT lead:
  - o To identify the support and resources needed
  - o To develop and agree schedule of contact time, meeting dates and reporting between them
  - o To promote embedding of project within own Trust.
- Develop a local implementation plan including:
  - o Project timeline
  - o Identify the most effective tools and documentation from all those available to incorporate into local pathways and adapt for local use as required (e.g. PReCePT magnet, etc.)
  - o Identify staff to be trained, method(s) of training and schedule.
- Develop a high level communication and engagement plan to include:
  - o Identify most effective ways to engage staff in training and communication (will vary on staff group)
  - o To identify and engage key stakeholders including Birth Centres and Midwife Led Units
  - o Outline how wider staff groups and own Trust will be involved and kept informed
  - o Launch event(s) where appropriate.
- To train all of the necessary staff groups using formal training, electronic training or other methods in order to:
  - o Provide knowledge and understanding of the use and benefit of magnesium sulphate
  - o To facilitate confidence and enthusiasm amongst staff on the unit in the use of magnesium sulphate to prevent cerebral palsy
  - o Enable staff to become confident in the use and implementation of the magnesium sulphate pathway.
- To provide regular short reports to the AHSN PReCePT lead on key project metrics. These will be fully defined at the start of the project, and will include QI learning log and training log, time spent and level of magnesium sulphate uptake.
- The Midwife Lead will be shown how to use the LIFE QI web based platform and encouraged to use it for the PReCePT project, i.e. PDSA on embedding magnesium sulphate, time between missed doses, etc.

# Maternity Unit Midwife Lead Role Description



- The Midwife Lead will be shown how to interrogate Badgernet locally to look at data completeness, and to support an understanding of missed doses and other relevant issues to project success.
- To seek support from the AHSN PReCePT project team as required.

## Skills and Experience

The Midwife Lead will:

- Be self-motivated, enthusiastic with excellent communication skills
- Have a track record of managing change and an ability and/or willingness to develop and extend their quality improvement skillset
- Have strong clinical leadership skills
- Have adaptive teaching skills and a positive approach to staff development.

## AHSN support

The AHSN PReCePT Lead will provide support to the Midwife Lead in the following areas:

- Hold meetings for the Midwife Leads and other staff members from his/her maternity unit as appropriate, to introduce the project and develop a project support network
- To provide project resource material (the PReCePT toolkit) and support each maternity unit in adapting this for local use
- To make regular contact with the Midwife Lead to support him/her in the local implementation throughout the nine-month period. This may be face-to-face, by email or by phone, as required and agreed with the Midwife Lead
- Where appropriate link to the Maternal and Neonatal Health Safety Collaborative and the clinical driver 'Improve the optimisation and stabilisation of the very preterm infant'
- To bring in additional support where appropriate and beneficial and where not available locally, e.g. communication support
- To escalate any issues to the Project team in liaison with the Midwife Lead.

# Maternity Unit Obstetrician Lead Role Description



## Background

PRECEPT, which stands for the Prevention of Cerebral Palsy in PreTerm Labour, has been designed to help reduce cerebral palsy in babies by administering magnesium sulphate (MgSO<sub>4</sub>) to eligible mothers during preterm labour. Preterm birth is the leading cause of brain injury and cerebral palsy, which has a lifelong impact on children and families. In delivering PRECEPT to all maternity units, the West of England AHSN is working closely with the Maternal and Neonatal Health Safety Collaborative.

NHS England has included the adoption and spread of PRECEPT in the business planning for all Academic Health Science Networks (AHSN), with the West of England AHSN designated as the lead AHSN to co-ordinate national delivery of this initiative, known as PRECEPT3.

To achieve success in the form of meeting the 85% target, (and the further stretch target of 95% by September 2020), all clinical staff and stakeholders need to work collaboratively and understand how they can support this intervention. Obstetricians play a key role in this.

## Skills and Experience

This role requires clinical experience and credibility, leadership skills and the ability to communicate complex information to a range of audiences. The ability and/or willingness to develop and extend their quality improvement skillset with a positive approach to staff/unit/network development is central to this role. Experience of working collaboratively with a wide range of stakeholders across multiple sites and organisations is also desirable.

The Obstetrician, who assesses and diagnoses preterm labour, has a key role in promoting the administration of magnesium sulphate in partnership with Midwives who can prompt the Obstetric team to remember to offer and prescribe magnesium sulphate.

## Support Activities:

- To support clinical leadership and provide expert knowledge to their local unit to ensure this intervention becomes standard practice
- To communicate, influence, and negotiate with key stakeholders locally to support successful implementation of the intervention
- To work collaboratively with the local PRECEPT project team, the Regional Neonatal Lead and the regional AHSN

# Maternity Unit Obstetrician Lead Role Description



- To contribute to reviewing, embedding and implementing the PReCePT toolkit materials to ensure they are up to date and accessible to their unit in order to support sustained implementation of the approach
- Alongside the local Midwife Lead disseminate the local progress of uptake of magnesium sulphate administration and the accompanying learning
- To partake in and support training and events regionally in order that knowledge and information can be cascaded to their local team.

# Regional Neonatal Lead Role Description



## Background

The West of England Academic Health Science Network (AHSN) is one of 15 AHSNs in England, formed in September 2013 and issued with a second licence in 2018.

PRECEPT, which stands for the Prevention of Cerebral Palsy in PreTerm Labour, has been designed to help reduce cerebral palsy in babies by administering magnesium sulphate (MgSO<sub>4</sub>) to eligible mothers during preterm labour. Preterm birth is the leading cause of brain injury and cerebral palsy, which has a lifelong impact on children and families. In delivering PRECEPT to all maternity units, the West of England AHSN is working closely with the Maternal and Neonatal Health Safety Collaborative.

NHS England has included the adoption and spread of PRECEPT in the business planning for all Academic Health Science Networks (AHSN) with the West of England AHSN designated as the lead AHSN to co-ordinate national delivery of the PRECEPT programme.

This role is a one year fixed term contract or secondment from an NHS organisation, working on average 1 PA, (0.1wte), per week. As a clinician experienced in neonatal care this role will provide clinical leadership to Maternity and Neonatal units in England to deliver PRECEPT across a defined region aligned to one of the Neonatal Operational Delivery Networks and one or more Academic Health Science Networks.

## Skills and Experience

The ideal candidate will be a proactive, self-motivated individual with clinical experience and credibility, strong leadership skills and the ability to communicate complex information to a range of audiences. They will have excellent communication skills and demonstrate enthusiasm, innovation and resilience when faced with challenges. A proven track record of managing change would be beneficial. The ability and/or willingness to develop and extend their quality improvement skillset with a positive approach to staff/unit/network development is central to this role. Experience of working collaboratively with a wide range of stakeholders across multiple sites and organisations is also desirable.

## Main Duties and Responsibilities:

- To provide clinical leadership to the PRECEPT project across a defined region of England
- To provide clinical leadership and expert knowledge to maternity and neonatal units within the region
- To communicate, influence, and negotiate with key stakeholders to successfully deliver the project

# Regional Neonatal Lead Role Description



- To provide support to the AHSNs within the region to ensure successful delivery of the project within the agreed timescales
- To chair and attend meetings as needed, setting the agendas where appropriate
- To work with local clinical leads and Senior Responsible Officer (SRO) for the project to ensure its successful implementation
- To contribute to reviewing and updating PReCePT toolkit materials as they are developed and to ensure they are up to date and accessible to all units in order to support sustained implementation of the approach
- To lead training and events regionally in order that knowledge and information can be cascaded to local teams working in maternity and neonatal units
- Provide up to date communications to the AHSN leads and other partners to maximise engagement throughout the project lifecycle
- To work collaboratively with other regional leads in order to ensure effective implementation of the project locally and nationally
- To regularly report and communicate with the national clinical lead on progress with implementation of the project
- To continuously monitor uptake of magnesium sulphate in all maternity and neonatal units in the region, ensure completeness of data and report to the national leads
- To monitor cerebral palsy rates on BadgerNET via the two years outcomes data and report to the national leads
- To liaise with NHS Improvement and AHSN Patient Safety Collaborative colleagues who are working on the clinical driver 'Improve the optimisation and stabilisation of the very preterm infant' within the Maternal and Neonatal Health Safety Collaborative.

## **NB**

The role will involve travel to various sites across England in order to attend meetings, and therefore willingness to travel and work flexibly is required.





# Section 6.

## Glossary and abbreviations

Documents in this section:

- Glossary and abbreviations

# Glossary and Abbreviations



Actim	A test to detect premature rupture of foetal membranes
AFI	Amniotic Fluid Index – this is an estimate of the amniotic fluid volume in a foetus
AHSN	Academic Health Science Network
CDS	Central Delivery Suite in a maternity unit
Cerebral Palsy	The name for a group of lifelong conditions that affect movement and co-ordination, caused by a problem with the brain that occurs before, during or soon after birth
CRP	C-Reactive Protein is a substance produced by the liver in response to inflammation
CTG	Cardiotocography is a means of recording the fetal heartbeat and the uterine contractions during pregnancy. Also called the electronic fetal monitor (EFM)
EDD	Estimated Due Date is the date that spontaneous onset of labour is expected to occur
EFW	Estimated Fetal weight – weight of the baby during pregnancy
FBC	Full Blood Count – measures the number of red blood cells amongst other components – used in this context to check haemoglobin - iron levels
Fetal Fibronectin	A protein that's believed to help keep the amniotic sac "glued" to the lining of the uterus. The amniotic sac is the fluid-filled membrane that cushions the baby in the uterus
FHR	Foetal Heart Rate – heart rate of the foetus
HVS	High vaginal swab
IM	Intramuscular
IV	Intravenous
LVS	Low vaginal swab
MgSO <sub>4</sub>	Magnesium Sulphate is a naturally occurring mineral with a variety of health benefits
MC&S	Microscopy, Culture & Sensitivity – a microbiological test to identify presence of infection
MSU	Mid Stream Urine – taking a sample of urine mid flow
NAATS	Nucleic Acid Amplification Test
Neuroprotection	An effect that may result in salvage, recovery or regeneration of the nervous system, its cells, structure and function
NICU	Neonatal Intensive Care Unit – a specialist critical care unit for care of preterm babies
N/Saline	Normal Saline is a solution used for a variety of reasons, in this context to prepare a drug for injection
NNT	Number needed to treat is the number of patients that need to be treated for one of them to benefit compared with a control in a clinical trial
Preterm	Preterm labour is defined as regular contractions of the uterus resulting in changes in the cervix that start before 37 weeks of pregnancy
QDS	Every 6 hours or to be taken four times per day – derived from the Latin term "quatier die sumendus"
STI's	Sexually Transmitted Infections
Tocolysis	Inhibition of uterine contractions
USS	Ultrasound Scan where high-frequency sound waves to create an image of part of the inside of the body
SRM	Spontaneous rupture of membranes

# Notes





[www.weahsn.net/precept](http://www.weahsn.net/precept)



@PReCePT\_MgSO4

*The***AHSN***Network*