

## Actions taken

The West of England AHSN developed PReCePT in collaboration with University Hospitals Bristol to help reduce cerebral palsy in preterm babies by optimising administration of magnesium sulphate (MgSO<sub>4</sub>) to women in preterm labour.

Co-designed with a wide range of stakeholders, including patients, clinicians and management, PReCePT provides a supported quality improvement (QI) toolkit, information materials and practical tools and training to raise awareness of evidence-based practice on use of MgSO<sub>4</sub> compliance, supporting staff to consider MgSO<sub>4</sub> in eligible pregnancies.

Consultant neonatologist Dr Karen Luyt initially led the pilot at St Michael's Hospital in Bristol, which demonstrated an increase in uptake: 4% of eligible mothers in 2012 to 65% in 2013).

Between March 2014 and March 2015 with Dr Luyt as the clinical lead, the West of England AHSN coordinated the introduction and supported the adoption of PReCePT in all five maternity units (1) in the region, identifying lead midwives in each trust to champion the initiative.

PReCePT was independently evaluated by NIHR CLAHRC West and has since been refined to allow evaluation of the effectiveness of a supported versus a self-engaged implementation in a prospective comparison.

1. Gloucestershire Hospitals NHS Trust, Great Western Hospitals NHS Foundation Trust, North Bristol NHS Trust, RUH Bath NHS Foundation Trust, and University Hospitals Bristol NHS Trust.

## Impacts/ outcomes

- PReCePT has led to improved compliance with NICE guidance through its publicity campaign to increase awareness about the use of magnesium sulphate (MgSO<sub>4</sub>) as a neuroprotector, developing care pathways and a range of tools to spread and embed this message.
- 664 staff across five trusts were trained in the West of England in 12 weeks as part of the first



phase of PReCePT.

- 89 eligible women in the region were identified, in line with NICE guidance.

- Of these, 76 women received the recommended intervention; **an overall compliance of 85%**. Further quantitative evaluation of the project in late 2016 indicates that uptake of the recommended intervention remained consistent at **89% across the participating units**.
- Modelling indicates that a total of **322 eligible births will have received the intervention** since the start of the project. This is projected to have prevented seven cases of cerebral palsy across the West of England, representing a **potential lifetime financial saving of up to £5.1 million** (as of February 2017), including health care, productivity and social costs.
- If rolled out across the UK, it is estimated that **up to 1,400 babies** could be prevented from having cerebral palsy each year.

The project involved **strong partnership working** with five NHS Trusts and engaged a wide range of stakeholders in the co-design of information materials, including patient representatives and clinical partners. Parent engagement was key; there was significant involvement from the charity BLISS, and parent representatives were core steering group members throughout the project.

*From a non-clinical perspective, I hadn't heard that you could do anything to prevent cerebral palsy. so I came into it through the Academic Health Science Network. I just met the project lead to see if I could offer her any project support, but actually all the project materials and the collateral from the AHSN was there. I didn't really have to do anything because it was all there. From my perspective it was evidence-based, it was a good thing to do... so now we're just rolling it out. For me it was just a no-brainer to do"*

**Member of staff, maternity unit**

## Plans for the future

PReCePT is now embedded in five NHS Trusts in the West of England, with plans to spread to the Innovation Agency (AHSN for North West Coast). This would cover Cheshire, Merseyside, Lancashire and South Cumbria, including the UK's largest neonatal unit (Liverpool Women's NHS Foundation Trust), which is leading a maternity Vanguard.

It is also currently being considered for Scaling Up funding from The Health Foundation to spread the intervention to a further 10 maternity units across the country.

This next phase of PReCePT will provide comparative evidence between the two adoption models (resulting from the NIHR CLAHRC West evaluation) to inform the method of optimal future UK spread.

## Which national clinical or policy priorities does this example address?

- Care and Quality
- Funding and Efficiency
- Health and Well-Being

## Where did the innovation originate from?

- NHS
- Third sector

## Start and end dates

- PReCePT1: March 2014 – March 2015 (with care pathways embedded in all participating Trusts)
- PReCePT2: Planning ongoing

May 2017 application to The Health Foundation for Scaling Up funding.

Advanced plans to spread PReCePT2 to Innovation Agency (AHSN for North West Coast)

## Contact for help and advice

Project contact for further information

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