

# Winning QI abstracts - RCPCH Conference 2019

G9

## CAN INTRODUCTION OF A HYPOTHERMIA BUNDLE REDUCE HYPOTHERMIA IN THE NEWBORNS?

M Al-Shamari, R Puttha, S Yuen, D Rees, C Curson, S Goldengay, G Armstrong, M Panchal  
Paediatrics, George Eliot Hospital, Nuneaton, UK

**Background** Neonatal hypothermia is a common problem which leads to harm and avoidable admissions in term babies. Hypothermia is defined as an axillary temperature of less than 36.5°C. Our Trust was a member of the Avoiding Term Admissions into Neonatal Units (ATAIN) programme. This multi-professional project aligns with recommendations in Better Births and the West Midlands Patient Safety Collaborative.

**Aim** To reduce neonatal hypothermia in term babies by 50% over 6 months from November 2016 to April 2017 and eliminate it by November 2018.

**Methods** We introduced a neonatal hypothermia bundle with six elements: keep room draught free, dry baby, apply pre-warmed hat, skin to skin contact, measure temperature of the baby and room within the first hour. We used the Model for Improvement and multiple PDSA Cycles. Changes included locking corridor windows, fitting thermometers in each room, using hats on every baby, new towel warmers, the bundle sticker, parent teaching at antenatal classes and staff interprofessional learning, based on a 9-step process (with a video we created).

**Results** Prior to the introduction of hypothermia bundle, between May and October 2016, 24 out of 120 (20%) babies admitted to the Neonatal Unit, were hypothermic.

In term babies, hypothermia reduced in the first six months after introducing the bundle, to 9.75% followed by a gradual raise over the last eighteen months to a current value of 14.1%. Most of these hypothermic babies were admitted from labour ward (58%). Although only 78% of hypothermia bundles were filled between April 2018 -June 2018 in a snap shot check of 10 weekly random samples in maternity ward, we found that all babies had their temperature recorded and only 5.8% of maternity ward babies (7 out of 120) were actually cold.

**Conclusion** There was an initial significant reduction in the admission rate of the hypothermic term babies. Staffing changes and other pressures affected the focus on the project. We will reflect on how best to sustain improvement

G13

## QUALITY IMPROVEMENT PROJECT: PARENT ADMINISTRATION OF MEDICATION IN A TERTIARY NEONATAL UNIT

<sup>1,2</sup>C Cochrane, <sup>1</sup>L Ramsey, <sup>1</sup>M Jackson, <sup>1</sup>A Staples, <sup>1</sup>A Pike, <sup>1</sup>C Rose, <sup>2</sup>J Francis

<sup>1</sup>Southmead Neonatal Unit, North Bristol NHS Trust, Bristol, UK

<sup>2</sup>Quality, Deanery House, Severn, Health Education England SouthWest, Bristol, UK

**Background** Parents may need to give their baby medications after discharge from the neonatal unit. Our unit has reports of medication errors at home. If parents were to give medications during hospital stay it may save nursing time and increase parent confidence.

**Aims** Increase parent administration of medication in low dependency to 50% within 6 months. Reduce nurses' time giving medications and increase parent confidence with giving medications.

**Methods** Introduction of a programme to train parents to give their babies' medications during hospital stay. Parents were consented, given face-to-face training and provided with leaflets. The number of parents giving medications and nurses' time giving medications were measured. Parents completed surveys prior to the programme and before discharge. They

were asked their confidence score for giving medications, with 1 'not confident at all' to 10 'very confident.' PDSA cycles were used to guide improvements and increase enrolment.

**Results** The first month was spent training staff. 20 weeks of data were collected; 78 babies were eligible and 49 entered (63%). In the last 4 weeks 87% were enrolled, 48% had parents independently administering medications; it took on average 1.7 days to progress from training to independently administering and average length of stay in low dependency was 12 days. There were 373 days of stay where parents had completed training. A nurse spends on average 30.4 minutes per day giving medications to 8 babies and it requires two nurses (7.6 minutes per baby). Additional time can be spent finding a second nurse. We estimate a saving of over 20 minutes per day of nurses' time giving medications. Mean parent confidence scores were 8.6 / 10 (n=40) prior to the programme and 9.9 / 10 (n=22) after training.

**Conclusion** Training parents to give medication saves nurses' time, with the potential to save over an hour per baby if parents are trained promptly and give medications for an average of 10 days. Training parents to give medications to their babies can increase parent confidence prior to discharge home.

## G16

### IMPROVING VITAMIN D SUPPLEMENTATION IN CHILDREN WITH EPILEPSY PRESCRIBED ANTI-EPILEPTIC MEDICATION WITH THE USE OF QUALITY IMPROVEMENT METHODOLOGY

M Scott, N Corrigan, K Kerrigan

Department of Paediatrics, Altnagelvin Area Hospital, Western Health and Social Care Trust, Derry, UK

**Aim** Evidence suggests that children treated with anti-epileptic drugs (AED's) are at an increased risk of vitamin D deficiency. This has been recognised by the RCPCH "Guide for Vitamin D in Childhood". Vitamin D deficiency is associated with loss of bone mineral density and an increased fracture risk. Recommendations have been made that children prescribed AED's should receive supplemental vitamin D. Our clinical experience suggested that this was not routinely being offered. We wanted to determine the number of these children receiving vitamin D and ultimately improve this figure with the overall aim of improving bone health.

**Methods** Interrogation of clinic databases and the regional electronic care record identified those patients attending epilepsy clinic's and concomitantly prescribed AED's /Vitamin D supplementation.

Following a literature review, a guideline and algorithm for Vitamin D prescribing was created in conjunction with the hospital's pharmacy and medicines management team. This guideline was agreed by the trust and subsequently communicated to hospital and GP colleagues alongside informative teaching sessions. A patient/parent information leaflet was created and all those patients meeting the criteria were contacted and vitamin D prescription offered.

Following this series of interventions, the electronic care records were interrogated to again look at vitamin D prescription in this cohort of patients. Run charts were used to capture results after each intervention.

**Results** Of the 261 patients attending the epilepsy clinic, 175 met the criteria for requiring vitamin D supplementation. Prior to intervention 12 (7%) were prescribed vitamin D. Following the first month of patient contact this improved to 90 (51%) and to 107 (61%) following the second month. Overall this has shown a 790% percentage improvement with ongoing reviews of the database planned.

**Conclusion** By improving vitamin D supplementation we are pro-actively improving the bone health of children receiving AED's. We feel this will have far reaching effects in terms of health benefits and also health economics. Engagement with our pharmacy, GP and specialist nurse colleagues have been fundamental to successfully implementing a robust method to ensure the appropriate children receive correct vitamin D supplementation.