

Lessons learnt Our programme addresses the imbalance of Paediatric experience in GP training when compared to the Paediatric proportion of a typical GP's workload.

Message for others We feel the programme would benefit to GP trainees across the country and could easily be introduced in other deaneries.

G520(P) WITHDRAWN

G521(P) **BABY FRIENDLY PREVENTION AND MANAGEMENT OF NEONATAL HYPOLYCAEMIA ON POSTNATAL WARDS**

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Context The project was undertaken at a level 3 NICU in a DGH in Surrey, UK, involving junior and senior doctors, midwives, nursery nurses, pharmacists and the pathology department.

Problem Staff anecdotally felt the hypoglycaemia operational threshold was too high, monitors were inaccurate, blood sugar level (BSL) tests too frequent and management inconsistent. Treatment with formula feed supplements was hindering efforts to establish breastfeeding and prolonging stays.

Assessment of problem and analysis of its causes Initial assessment involved an audit of current practice against Baby-Friendly Initiative standards and interviews with 62 multidisciplinary team members to explore concerns and collate ideas for improvement. To check equipment accuracy, 50 samples were tested for blood glucose on both the portable metres and blood gas machine, which found on average glucometers under-read by 0.5mmol/L (range 0–2.0mmol/L). A review of literature and other UK trust's policies was carried out to identify best practice and alternatives to formula-feed supplementation. It was recognised that new equipment would need to be used for BSL monitoring and all staff would need to be trained in any policy changes.

Intervention New guidelines lowered the working definition of hypoglycaemia, limited the number of BSL tests performed by stopping routine measurement of post-feed BSLs, and changed first line treatment of moderate hypoglycaemia (BSL >2mmol/L) from formula top-up to dextrose gel. A new proforma with step-by-step management plan and built in escalation was designed with the midwives. The pathology department is acquiring more accurate glucometers for the trust; in the meantime a "glucose only" micro-sample setting on NICU gas machine has been set up.

Study design Audit of practice pre- and post- new management guidelines was undertaken to measure the number of needle pricks each baby had, number of days each infant at risk of hypoglycaemia was monitored for, supplementation rates, the number of babies treated for hypoglycaemia who were discharged breast feeding and still doing so at 3 months, and the number of infants admitted to NICU for management of hypoglycaemia.

Strategy for change Management of hypoglycaemia guidelines were re-written and a new proforma produced within 6 months. This was sent to all Neonatal Consultants and senior midwives for review. All midwives and nursery nurses were trained by the

authors and the point-of-care team in the new guidelines, how to take a capillary blood gas and how to run a glucose only sample. Audit of practice as outlined above was carried out for infants treated 6 months before and 6 months after guideline implementation, and the results fed back to the Neonatal Consultant body.

Measurement of improvement Audit of practice showed post-implementation the average number of BSL tests per baby reduced by 73% (15 to 4 pricks) and average monitoring time reduced by 52% saving 520hrs/month staff time. Breastfeeding rates at 3 months post discharge have doubled and provisional data shows a 38% reduction in SCU/NICU admissions for neonatal hypoglycaemia.

Effects of changes Changes implemented meant more accurate blood sugar analysis, fewer needle pricks for infants, shorter admission time for infants at risk of hypoglycaemia, and decreased use of formula supplementation which has enabled the trust to apply for Level 3 Baby Friendly accreditation. Some senior staff were concerned the new proforma was too complicated; this was addressed through face-to-face consultation.

Lessons learnt The most important lesson was the necessity of having all members of the multi-disciplinary team involved in the project from the beginning.

Message for others Change to the status quo to improve patient care and experience is possible by quantifying a long-standing anecdotal problem and implementing evidence based practice.

G522(P) **IMPROVING PAEDIATRIC MALARIA CARE IN A LOW RESOURCE SETTING**

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Context The improvement took place in a large paediatric referral hospital in West Africa.

Problem Malaria is one of the leading causes of morbidity and mortality for children attending the hospital. There was no uniform guidance or set standard on the management of malaria. As a result, treatment varied from doctor to doctor, patient to patient.

Assessment of problem and analysis of its causes 40 clinical notes per week were randomly selected for 5 weeks (Weeks 1–5). The data collected compared current practice against the standard expected for the management of a child presenting with a fever/malaria. Multiple areas where the standards were not met were identified at all stages of the child's journey from presenting to the hospital with fever all the way to discharge home or death.

Intervention A new malaria guideline and training package was developed. The guideline included a flow chart, investigations and 1st and 2nd line treatment options, a drug treatment table and guidance on how to prepare and prescribe the treatment on a drug chart. These guidelines were approved by the National Malaria Control Programme and then implemented across the hospital, through teaching and training workshops.

Study design The study used two cohort groups of patients; The first cohort included patients who were admitted to the hospital prior to the intervention the second cohort included patients who were admitted to the hospital after the intervention. The data analysed compared the findings between both groups.