Abstracts


Conclusions Our study demonstrates a high admission rate of term and near term infants, above the national ATAIN programme recommendation of <6% in this population. Our average separation days are above the NNAP unit comparison data of 2.9 for term and 5.8 for near term infants as published in the 2020 report. Our conclusions are to adopt the standards for transitional care as published in the BAPM 2017 framework and revise our guideline to manage infants at high risk of hypoglycaemia by introducing a new network guideline based on BAPM 2017 recommended thresholds for intervention. Our unit should subscribe to the ATAIN programme with a multidisciplinary weekly review of term and near term admissions. We calculate that 78 (36%) of our cohort could have avoided admission with these systems in place.

British Association of Perinatal Medicine and Neonatal Society

A STUDY OF TERM AND NEAR TERM INFANT ADMISSIONS TO A TERTIARY NEONATAL UNIT

Abhishek Agarwal, Serah Koshi, Annell Allman. Aneruin Bevan University Health Board

10.1136/archdischild-2021-rpch.201

Background Analysis of care days provided by our tertiary neonatal unit has shown a higher than expected number of special care days. We focussed on this by studying term and near term admissions to the unit over a defined time.

Objectives Our aims were to identify the primary reasons for term and near term admissions and the level of care required. We sought to benchmark our admission rate with national and Neonatal Society standards for transitional care as published in the 2017 report. Our conclusions are to adopt the ATAIN programme recommendation of <6% in this population. Our study demonstrates a high admission rate of term and near term infants, above the national ATAIN programme recommendation of <6% in this population. Our average separation days are above the NNAP unit comparison data of 2.9 for term and 5.8 for near term infants as published in the 2020 report. Our conclusions are to adopt the standards for transitional care as published in the BAPM 2017 framework and revise our guideline to manage infants at high risk of hypoglycaemia by introducing a new network guideline based on BAPM 2017 recommended thresholds for intervention. Our unit should subscribe to the ATAIN programme with a multidisciplinary weekly review of term and near term admissions. We calculate that 78 (36%) of our cohort could have avoided admission with these systems in place.

British Society of Paediatric Endocrinology and Diabetes

CLINICAL IMPACT OF THE 2020 BSPED INTERIM GUIDELINE ON THE MANAGEMENT OF DIABETIC KETOACIDOSIS: A SNAPSHOT OF DATA FROM TWO LONDON CENTRES

1Zijian Zhang, 2Melanie Ranaweera, 3Christina Wei, 2Edward Holloway. 1St George’s University Hospitals NHS Foundation Trust; 2Croydon Health Services NHS Trust; 3Evelina London Children’s Hospital, Guy’s and St Thomas NHS Foundation Trust

10.1136/archdischild-2021-rpch.202

Background There is little consensus on optimal fluid replacement in DKA; and the 2020 British Society for Paediatric Endocrinology and Diabetes (BSPED) interim guideline on the management of children <18 years with diabetic ketoacidosis (DKA) represents a significant shift away from the more restrictive approach to fluid replacement advocated in the 2015 guideline.

BSPED 2020 guideline recommends that all patients should receive an initial 10 mL/kg bolus and those in shock receive a 20 mL/kg bolus. Furthermore, the maintenance fluid requirement was liberalised to use the Holliday-Segar formula and given in the first 24 hours of admission, instead of the previously slower infusion rates over a 48 hour period.

Objectives This survey aimed to report any change in clinical outcomes with the switch to using the 2020 BSPED interim DKA guideline compared to the previous BSPED/NICE 2015 guideline.

Methods We collected data from all paediatric patients who presented with DKA to Croydon University Hospital and St George’s Hospital, London. Data was collected from admissions during the 6 months pre and post-implementation in the respective trusts of the 2020 guideline (Sept 2019-Sept 2020). Patients were identified from local paediatric diabetes team databases and data was retrospectively extracted from electronic patient records.

Results A total of 20 patients were studied. 3 patient sub-cohorts were identified according to which guidelines were followed:

1. 2015 guideline (n=13)
2. 2020 guideline (n=13)
3. 2020 guideline on initial admission but subsequent change to the South Thames Retrieval Service (STRS) guideline (n=4)

All cohorts had similar demographics. Mean admission pH for each cohort was 7.17 (range 6.8–7.3) in the 2015 group;
7.14 in the 2020 group (6.8–7.3); and 6.89 (6.8–7.0) in the 2020/STRS group.

Treatment was given for cerebral oedema for one patient each of the 2015 and 2020 cohorts, two in the 2020/STRS group.

AKI rates were one each in the 2015 and 2020 cohorts, two in the 2020/STRS group.

Hospital length of stay was also similar across the 3 groups (means of 3.9, 5.7 and 14.5 days respectively).

Conclusions Patient numbers were too small to give robust conclusions but on this evidence, both DKA guidelines appear to be safe and did not affect hospital length of stay, acute renal or cerebral oedema complication rates.

The authors note that after this study’s conclusion, NICE published another new guideline (December 2020) offering something of a ‘middle ground’ recommendation on fluid replacement in DKA; and the debate on safest fluid management continues.

Association of Paediatric Emergency Medicine

PREDICTING SERIOUS BACTERIAL INFECTIONS IN INFANTS AGED 90 DAYS OR LESS

Background NICE sepsis guidelines advise febrile children aged ≤90 days are at higher risk of serious illness. Therefore, children undergo investigations and receive antibiotic therapy in these cases, despite limited data on actual number of serious bacterial infections (SBI). The Febrile Infants Diagnostic Assessment and Outcomes (FIDO) study, performed on behalf of PERUKI, aimed to evaluate this further.

Objectives To determine rates of SBI in children aged ≤90 days with fever ≥ 38°C.

To assess clinical features and investigations most significantly associated with SBI.

Methods Retrospective analysis of Emergency Department (ED) presentations of febrile infants was conducted across six sites (Belfast, Bristol, Dublin, Glasgow, Leicester and London) between 01.09.2018 and 31.08.2019.

The clinical features underwent univariate analysis, and those deemed to be statistically significant (p < 0.2) were included in multivariate analysis.

Results 535 ED records, out of 543 identified, had complete data and were included. 70 (13.1%) participants were diagnosed with SBI – 6 with bacterial meningitis (1.1%), 7 with bacteremia (1.3%) and 57 (10.7%) with urinary tract infections.

Table 1 shows univariate analysis of individual features. Multivariate analysis of clinical features demonstrated that appearing well was significantly associated with the infant not having a SBI (p = 0.008), as was receiving a vaccination in the preceding 24 hours (p < 0.0001). No well-appearing infant who received a vaccine within the preceding 24 hours had an SBI.

433 (80.9%) participants underwent blood testing, including all 70 of those diagnosed with SBI. The median CRP (p < 0.0001) and neutrophil counts (p = 0.011) were significantly higher for participants with SBI. There was no significant difference in median white cell count, lymphocyte count or haemoglobin.

Conclusions This study adds that appearing well and having a vaccination in preceding 24 hrs is significantly associated with not having SBI. It found CRP and neutrophil count was significantly associated with not having SBI. It found CRP and neutrophil count was significantly associated with SBI, but other blood analysis results were not. Further research into clinical assessment and investigations of these children may help identify those with SBI more accurately and reduce over-treatment in low risk children.

BRIDGING THE DAM GAP!!

Suman Fatima, Bindu Radha. Surrey and Sussex Healthcare Trust

Background In many Neonatal clinical emergencies, endotracheal intubation procedure is life saving and forms a vital part of neonatal resuscitation. It is possible that current trainees are getting less exposure to emergency intubations in the current scenario of less invasive methods of neonatal stabilisation and surfactant administration.

Objectives To explore knowledge and awareness regarding Difficult Airway Management (DAM) in Neonates amongst neonatal practitioners in local deanship and Surrey Heartlands region.