A STUDY OF TERM AND NEAR TERM INFANT ADMISSIONS TO A TERTIARY NEONATAL UNIT
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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 data and measure separation days, as defined by low dependency care days where breathing support is not needed. We aimed to calculate the proportion of potentially avoidable admissions and to establish what changes in practice would be required to achieve this.

Methods This was a retrospective observational study performed from January 2020 to August 2020. Inclusion criteria were any infant born ≥35 completed gestational weeks (CGW) admitted to the neonatal unit. ‘Term’ was defined as ≥37 CGW and ‘near term’ as ≥35 to <37 CGW. Data were collected from BadgerNet and analysed using Microsoft excel.

Results A total of 214 infants were identified, 170 term (9.5% of term births) and 44 near term (42.6% of near term births). 139 (65%) infants were admitted for respiratory concern, which was the most common admission reason. Of these, 40 (29%) required less than 6 hours of respiratory support and 30 (21%) required less than 2 hours of respiratory support. The second most common admission reason was hypoglycaemia/feeding concerns, with 49 (23% of the 214 cohort) admitted for this. Of these, 32 (65%) required nasogastric feeding or feeding plan only, while 17 (35%) required IV fluids. 18 infants (8.5%) were admitted for jaundice, neonatal abstinence syndrome, or observations. Our cohort of 214 required a total of 1261 care days, 903 (72%) being special care days. There were 898 care days in term infants, of which 621 (69%) were special care, and 363 care days in near term infants, of which 282 (78%) were special care. The average duration of stay was 5.3 and 8.3 days for a term and near term infant, respectively. Average separation days were 4.0 for a term infant and 6.9 for near term infant.

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 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

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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 30 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;