

Post-natal corticosteroid use for preventing chronic lung disease in a tertiary care neonatal unit

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Introduction & Aims

Postnatal corticosteroids have long been used to prevent and treat chronic lung disease in preterm. However, adverse neurological outcomes including cerebral palsy have led to concerns about their safety and use. Current opinion suggests a role for cautious corticosteroid use in older, ventilator-dependent infants. The primary aim of this study was to examine the use of postnatal corticosteroids in Cork University Maternity Hospital (CUMH) between the years of 2008 and 2014, determine has their usage increased and describe typical prescribing habits.

Methods

A retrospective review of very low birth weight infants was completed. All infants treated with dexamethasone in CUMH from 2008 to 2014 were identified from the Vermont Oxford Network Database. Clinical data was collected from patient notes and compiled for analysis.

Results

15 infants were identified for inclusion in the study. Steroid use became increasingly common throughout the study period (Figure 1).

The median age at first dose was 23 days (IQR 20-25). All infants were ventilated when steroids were initially commenced. 13 infants were prescribed dexamethasone according to a defined protocol. Results pertaining to steroid treatment are outlines below in Table 1.

Table 1.	Number (%)
Completed Dexamethasone Course	14 (93.3%)
Extubated During Course	12 (85.7%)
Remained off Ventilation (>72hours post cessation of dexamethasone)	7 (46.7%)
Required Repeat Dexamethasone Course	4 (26.6%)

Cumulative dose of dexamethasone was within recommended daily limit of 0.2mg/kg/day in 18 (94.7%) of the dosing regimens. Parental discussion prior to treatment was

documented in 14 of 15 cases (93.3%). The median time requiring mechanical ventilation was 40 days (IQR 30-60). Survival rate at 36 weeks gestational age was 80%.

Conclusions

Postnatal corticosteroid use has increased between 2008 and 2014. This rise in use was accompanied by implementation of a specific guideline in CUMH. No patient was less than 14 days old on commencing steroids, daily dosing was kept within recommended limits, and parental discussion was documented in the majority of cases. Dexamethasone usage in CUMH was in keeping with recommended practice throughout the study period.