Down Syndrome Medical Interest Group

1736 NEWBORN SCREENING AND SURVEILLANCE OF THYROID DISORDER IN INFANTS WITH DOWN SYNDROME

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Background The Down Syndrome Medical Interest Group U.K. & Ireland published guidelines on thyroid disorders in children and young people with Down syndrome: surveillance and when to initiate treatment in April 2020.

The guidelines recommend that infants with Down syndrome be offered an initial blood spot in the neonatal period in accordance with the current national newborn screening programme for congenital hypothyroidism.

The guidance also recommends that all infants with Down syndrome are offered thyroid function testing at 4–6 months of age and that no additional testing is required in the neonatal period unless thyroid dysfunction is suspected or where additional testing is recommended by the national newborn screening programme.

Objectives To ascertain whether clinicians have adhered to the new guidance on offering thyroid function testing as per the Down Syndrome Medical Interest Group guidance.

Methods A retrospective notes review was undertaken of all infants with Down syndrome referred to the three child development centres in Leeds during the period February 2020 – February 2021.

Results Electronic case notes of 13 babies with Down Syndrome were reviewed. Six infants were offered thyroid function testing between 4–6 months of life. Although two babies had insufficient samples and so did not get a result. At the time of auditing these babies were 26 weeks and 49 weeks old and yet to have repeat blood sampling.

One infant was tested at 7 months and 1 infant was tested at 8 months.

Three infants are yet to have thyroid function tests and are more than six months of life. One infant is only three weeks old and too young to be offered testing but this has been arranged to be taken at 4 months of life.

One infant (male) had thyroid function testing at 21 days of life due to abnormal TSH on newborn screening and has subsequently been diagnosed with congenital hypothyroidism.

One infant had inappropriate thyroid function tests sent at 10 days of life whilst on the neonatal unit.

One baby had a TSH of 6.4 with a normal T4 and the decision was made to repeat the samples in 3 months' time and not within 1–5 days as per recommended guidance.

Four babies had blood spot TSH (including the two babies with insufficient samples) and 4 babies had venous samples sent.

All babies were offered newborn blood spot screening.

The parents of ten babies were informed on thyroid dysfunction in Down syndrome and the importance of monitoring thyroid function in the initial clinic by the clinician. For the remaining 3 babies there is no documented evidence that this information was conveyed.

Conclusions We can do better in terms of timely offering the initial surveillance testing at 4–6 months of life and following up promptly on arranging repeat testing if there are sampling issues.

We must continue to educate parents on thyroid dysfunction in Down syndrome ensuring they are aware of key signs and symptoms.

Association of Paediatric Emergency Medicine

1739 BPSU STUDY ON SEVERE ACCIDENTAL POISONING IN CHILDREN (ASPIC)

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Background Accidental poisoning in children is a common reason to attend hospital. Children, particularly under 5 years, are naturally inquisitive and taste and swallow products, some of which may be harmful. A small select number of medications and chemicals are subjected to child resistant packaging legislation which has reduced harm to children. However most adult medicines are not, and one or two doses of these could prove fatal to a toddler. Additionally, teenagers may engage in illicit drug or alcohol use resulting in unintentionally poisoning themselves as a result of risk-taking behaviour.

Methods Thirteen months surveillance, where Consultant Paediatricians within UK/ROI reported cases of severe accidental poisoning which resulted in death and/or signs/symptoms requiring significant interventions in children < 15 years via the BPSU Orange Card. Further history, clinical details, and management were requested via a follow up questionnaire. Poisonings were classified using The European Association of Poisons Centres and Clinical Toxicologists (EAPCCT) poisoning severity score (PSS), which looks at the clinical symptoms and management of a poisoning episode (see table). Cases with a PSS < 2 were excluded from the analysis.

Results Of 116 cases, 30 were lost to follow-up, 13 were excluded, 31 reported in error, 3 were duplicate cases and 7 did not meet the case definition. This left thirty-two cases that met the surveillance case definition, and one was removed as it did not meet the analytic case definition of a PSS ≥ 2.

71% cases involved children under 5 years with 39% less than 2 years and 68% were male. 84% of cases occurred in either the child's own home (16/31), or a family member (10/31). 13/31 involved a prescribed/over-the-counter medication which were contained in blister packs (5/31), a bottle/jar (2/31), or loose (2/31). Commonly, these were opiates, sedatives or psychiatric medications. 12/31 cases involved illicit substances or alcohol.

Abstract 1739 Table 1

Poisoning Severity Score (PSS)	Cases
NONE (0): No symptoms or signs	
MINOR (1): Mild, transient and spontaneously resolving symptoms	
MODERATE (2): Pronounced/prolonged symptoms	14
SEVERE (3): Severe/life-threatening symptoms	16
FATAL (4): Death	1