A HOSPITAL-BASED SURVEY OF ORAL HEALTH KNOWLEDGE AND PRACTICES OF PARENTS AND CARERS IN DERBYSHIRE

Introduction
A plan to centralise microbiology services in the region has led to a proposal to install a local incubator near the neonatal unit. This was due to the consensus that non-24 hour incubation and reporting on clinical management of babies on the neonatal unit will improve our clinical care and shorten the duration of antibiotic therapy and hospital stay of patients. Currently, laboratory staff will incubate blood culture samples only during working hours of 8–12 hours. Negative blood culture at 36 hours, with normal infection markers will allow us to stop antibiotic therapy where a baby is not septic.

Aim
To assess the implication of non-24 hour blood culture incubation and reporting on clinical management of babies on the neonatal unit.

Method
This was a retrospective audit carried out over 3 weeks. Information was sourced from Laboratory reports, prescription charts and medical notes. Babies admitted from other hospitals, whose blood cultures had already been taken were excluded.

Results
28 babies were audited from NICU, HDU and SCBU. 22 were screened for early onset sepsis, and 6 babies screened for late onset sepsis. 1 positive blood culture result found. 22 babies had normal CRP at the time of screening and 12–24 hours after the start of antibiotics.

- Time of blood culture taken to start of incubation:
  Range: 1 hour 16 mins – 13 hours 10 mins
  Average: 7 hours 13 mins

- Time of blood culture taken to 36 hours incubation:
  Range: 36 hours 50 mins – 49 hours 18 mins
  Average: 43 hours

- Duration of antibiotics therapy:
  ○ 5 or more days for 7 babies
  ○ 60 hours for 4 babies
  ○ 36 hours for 2 babies
  ○ 48 hours for 14 babies

Conclusion
Non-24 hour incubation and reporting of blood cultures affect the duration of antibiotic therapy. It has no significant impact on the hospital stay on the neonatal unit. However, a similar audit on the postnatal and paediatric ward will show a significant effect of antibiotic duration on hospital stay and its cost to the trust. A local incubator will be essential to the neonatal and paediatric unit.

British Academy of Childhood Disability and British Association for Child and Adolescent Public Health

THE CLINICAL SPECTRUM OF DORSAL STREAM DYSFUNCTION IN AUTISM – A RETROSPECTIVE COHORT STUDY OF 13 CHILDREN

Aims
Bilateral dysfunction of the parieto-occipital cortex, linked to the visual cortex by the dorsal stream, variably produces simultanagnosia (SIM), optic ataxia (OA), and gaze apraxia. This triad, rarely reported in childhood, comprises ‘Balint syndrome’, ‘Dorsal stream dysfunction’ (DSD) describes milder degrees of this disorder.
This study aimed to determine the character and severity of DSD in a cohort of autistic children and to identify possible prognostic indicators for targeting specialist support.

**Methods** 13 able children with autism, sequentially receiving a tertiary neuro-ophthalmic diagnosis of DSD, were followed up over 6 years. Records were retrospectively reviewed for neuro-developmental and neuro-ophthalmic examination results.

Age-inappropriate configurational disruption of elements of drawings was identified in the Beery-VMI Test of Visual-Motor Integration (VMI) as evidence of SIM and standard VMI scores (VMIS) were used to measure the severity of SIM. Still-frame analysis of video was used to confirm diagnoses of OA using the criterion of impaired terminal grip size relative to the target grasped. Severity of visual functional impairment was rated on mean individual Cerebral Visual Impairment Inventory scores (MCVIS) using as reference the 90th percentile cut-off MCVIS of 0.74 for the typically developing population.

Correlation between MCVIS and VMIS was determined by linear regression analysis. Method agreement analysis for OA in central vision and motor coordination impairment (MCI), measured by the Beery Motor Coordination assessment, was determined by Cohen’s weighted Kappa statistic (K).

**Results** Significant correlation was found between MCVIS and VMIS: \( r = -0.77 \) [95%CI: –0.93 to –0.83], \( p = 0.002 \). Five children required specialist visual impairment (VI) support. The MCVIS for this group (3.05) differed significantly from the MCVIS for the non-support group (1.91) [difference 95% CI 0.74–1.55], \( p<0.0001 \). Agreement for severe MCI (≤5 th percentile) with central OA was significant: \( K = 1 \) [95% CI: 0.46 to 1.54], \( p = 0.0002 \).

**Conclusions** SIM may account for the visual perceptual impairment seen in ASD and OA may underpin motor impairment. MCVIS and VMIS may be useful indicators of the need for specialist VI support.

### Abstract G419(P) Table 1

<table>
<thead>
<tr>
<th>No of children achieved Target progress</th>
<th>Drop outs</th>
<th>No of children achieved Target progress</th>
<th>Drop outs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Autism</strong></td>
<td>138</td>
<td>24 (17.4%)</td>
<td>114</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(82.6%)</td>
<td></td>
</tr>
<tr>
<td><strong>Spectrum</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Disorder (ASD)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cerebral Palsy</strong></td>
<td>108</td>
<td>18 (16%)</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(83.3%)</td>
<td></td>
</tr>
<tr>
<td><strong>Global developmental delay</strong></td>
<td>50</td>
<td>12 (24%)</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(76%)</td>
<td></td>
</tr>
<tr>
<td><strong>Intellectual disability</strong></td>
<td>47</td>
<td>9 (19%)</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(76%)</td>
<td></td>
</tr>
<tr>
<td><strong>Dyslexia</strong></td>
<td>14</td>
<td>3 (21%)</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(78.5%)</td>
<td></td>
</tr>
</tbody>
</table>

**Phase 2**

- Marked improvement in target progress and decline in dropout rate was noted.
- Parents felt motivated and empowered.

**Conclusion**

- Developmental decoding and environmental modification have shown promising results in the management of childhood neuro-disability across a diaspora of diagnosis.
- Information technology was useful in implementation.

### Abstract G420(P)

**BEHAVIOURS THAT CHALLENGE: IMPORTANT PROMPTS FOR COMPREHENSIVE PEDIATRIC ASSESSMENT?**

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**Aim** To determine the incidence of previously unrecognised chromosomal, neurodevelopmental (e.g. autism spectrum and attention deficit, learning disability) and other conditions in...