1. 1st degree family history of DDH: mother, father, brother, sister only

Use the UK DDH screening programme question: ‘Is there anyone in the baby’s close family, i.e. mother, father, brother or sister, who has had a hip problem that started when they were a baby or young child that needed treatment with a splint, harness or operation?’

2. The baby has been a breech presentation:
   - Babies who are breech presentation at or after 36 weeks gestation, regardless of the presentation at birth or final mode of delivery
   - In multiple births all babies should be screened if any one of the babies is a breech presentation

Additional Factors from local guidelines
- Packaging deformity: Torticollis, Congenital Talipes Equinovarus
- T21 and other congenital syndromes
- Consultant decision

Methods
- Retrospective review of a sample of 100 charts on the Postnatal ward in Nov 2021
- Examined documentation of the 4 aforementioned DDH risk factors: family history, presentation at 36+ gestation (including if twin of breech), presence of packaging deformity and presence of a congenital syndrome
- A simple Excel Spreadsheet on the a hospital PC was used to analyse the data. No unique patient identifiers were included in the audit sheet, and thus no coding was required.

Results
- 100 Charts on PNW:
  - FHx: 58%
  - Presentation at 36+: 8%
  - Packaging deformities: 0%
  - Congenital Syndromes: 0%
- A sticker was designed to serve as a checklist for the risk factors and made available to the team to streamline proper documentation (figure 1).

A teaching session was conducted via zoom and the recommendations were also distributed in the NCHD messaging group.

Reaudit in Jan 2022, further 100 charts surveyed showed improvement in documentation of all risk factors as below:
- FHx: 89%
- Presentation at 36+: 76%
- Packaging deformities: 66%
- Congenital Syndromes: 66%

Conclusion
- Proper documentation of DDH risk factors was poor prior to this intervention; this may be due to limited space on the page and inadequate understanding of the individual factors.
- Simple improvement measures such as designing a checklist and raising awareness through a virtual teaching session as well the messaging group have significantly improved the quality of documentation in the postnatal ward.
- Providing individual teaching may improve documentation further if a 3rd cycle is to be undertaken.

Abstracts

633 IMPROVED RESPIRATORY PARAMETERS WITH SKIN-TO-SKIN CONTACT IN EXTREMELY PREMATURE INFANTS

Aims
- During neurally adjusted ventilatory assist (NAVA)/non-invasive (NIV)-NAVA, a modified nasogastric feeding tube with electrodes monitors the electrical activity of the diaphragm (Edi). The Edi waveform determines the delivered pressure from the ventilator. Skin-to-skin contact (SSC) is widely recommended and is part of standard neonatal care worldwide.

Our aim was to determine if SSC improved respiratory parameters in premature infants with evolving or established Bronchopulmonary Dysplasia (BPD).

Methods
- Prospective observational study was undertaken in the Neonatal Unit at St George’s Hospital, London. All infants born premature (less than 32 weeks of gestation) who had an indwelling Edi catheter to deliver NAVA mode of ventilation were included in the study. SSC was offered to parents as per standard practice on the neonatal unit. Data were downloaded from the ventilator and respiratory parameters compared to average of five minutes continuous readings obtained from Edi catheter for NAVA mode of ventilation included in the study. SSC was offered to parents as per standard practice on the neonatal unit. Data were downloaded from the ventilator and respiratory parameters pre-SSC (when baby in the incubator) were compared to best SSC (baby noted to be completely/most settled/asleep by the parent or by the bedside nurse) and end SSC (just before end of SSC). Data compared were an average of five minutes continuous readings obtained from Edi catheter for pre, best and end SSC. All infants received respiratory support using SERVO-n neonatal ventilator, Getinge. Respiratory parameters compared were peak electrical activity of the diaphragm (peak Edi),
mean airway pressure (P mean), respiratory rate (RR), expiratory tidal volume (VTe), fraction of inspired oxygen (FiO2) and percentage of time spent in back-up mode.

**Results** Sixty-six episodes of SSC were analysed from 12 premature infants with median gestational age of 24.4 range (23.1-27.0) weeks. Total median duration of SSC was 88.5 (range: 30 -250) minutes. Peak Edi in best SSC median (range) 13.42 (3.66-37.27) and end SSC 13.47 (2.65-38.69) was significantly lower compared to pre- SSC 17.11 (4.04-36.64) microvolts (µV) p <0.001. P mean was significantly lower in best SSC 10.30 (6.79-14.98) and end SSC 10.14 (7.25-15.6) compared to pre-SSC 10.67 (7.49-15.52) cmH2O, p = 0.033 and p = 0.005. RR was lower in best SSC 52.63 (35.59-74.00) and significantly lower in end SSC 52.41 (31.14-74.08) compared to pre-SSC 54.74 (35.11-74.08) breaths/min, p = 0.069 and p = 0.037. VTe was lower in best SSC 40.91 (3.73-100.26) and significantly lower in end SSC 41.50 (3.43-96.87) compared to pre-SSC 42.75 (6.48-92.99) ml p = 0.147 and p = 0.465. There was no statistically significant difference in inspired oxygen requirement in term babies receiving SSC.

Conclusion The respiratory parameters of peak electrical activity of the diaphragm (peak Edi), mean airway pressure and respiratory rate were significantly improved in extremely pre-term babies receiving SSC.

**Abstract 634 Table 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre-intervention</th>
<th>Interim</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of infants receiving vancomycin the QI period</strong></td>
<td>135 infants</td>
<td>135 infants</td>
<td>135 infants</td>
</tr>
<tr>
<td><strong>Vancomycin TTL percent</strong></td>
<td>37%</td>
<td>46%</td>
<td>54%</td>
</tr>
<tr>
<td><strong>Continuous versus intermittent vancomycin regimens</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Number of infants receiving vancomycin Kardex audits</strong></td>
<td>38 blood culture-positive cases</td>
<td>72 blood culture-positive cases</td>
<td>107 blood culture-positive cases</td>
</tr>
<tr>
<td><strong>Vancomycin Kardex audits</strong></td>
<td>38</td>
<td>72</td>
<td>107</td>
</tr>
<tr>
<td><strong>Other organisms (15%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Coagulase-negative staphylococcus (74%)</strong></td>
<td></td>
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<tr>
<td><strong>E. coli (11%)</strong></td>
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</tbody>
</table>
| **Table 2** Comparison of vancomycin levels between all intermittent versus continuous (high and low loading dose) regimen**

**Abstract 634 Table 2**

<table>
<thead>
<tr>
<th>Vancomycin level (%)</th>
<th>Pre-intervention</th>
<th>Interim</th>
<th>Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low loading dose</strong></td>
<td>10 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High loading dose</strong></td>
<td>20 mg/kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conclusion Using QI methodology, we successfully integrated continuous vancomycin regimen into our practice. We achieved a higher proportion of vancomycin levels in the therapeutic range using continuous vancomycin infusion. With a low loading dose (10mg/kg) continuous vancomycin infusion regime, a higher proportion of samples are achieving target therapeutic range.