Results The charts of 41 Neonates with PICC lines, were reviewed. One hundred percent had a PICC Sticker inserted in the chart. Twenty-six ‘PICC Stickers’ (63%) had 100% compliance with all the 15 documentation criteria. Thirty-eight charts (92%) had 11 or more documentation criteria completed. There was 100% compliance with Date, time, Indication, Catheter type, Insertion Depth, time of×ray, Position on×ray, line taped at, ‘Line Suitable’ and Clinical Signature. The Documentation sticker with less than 100% compliance included catheter size 80% (33/41), measured length 95% (37/41), no change 75% (31/41) and with draw 95%(39/41).

Formal radiological reports documented the PICC line tip position in forty of the forty-one×rays.

Kappa score for correlation between Paediatrician and Radiologist was 0.637(95% CI 0.394–0.880).

This audit demonstrates significant improvement to the standard of clinical documentation (as Shown in Bar Charts).

Conclusions This audit shows that, following the introduction of a ‘CL Stickers’ quality Improvement initiative, there has been significant improvement in quality of documentation of PICC lines in the past 4-year period. While kappa scores for inter-observer variation for the radiological position of the CL have shown some improved since 2014, it remains low at 0.637.

<table>
<thead>
<tr>
<th>Babies</th>
<th>PICC Lines</th>
<th>Mean Gestation</th>
<th>Mean Weight</th>
<th>Mean Age at Insertion</th>
<th>Duration of PICC Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>287</td>
<td>41</td>
<td>31 Weeks (26–35)</td>
<td>1.2 Kg (0.6–1.98)</td>
<td>28 Hours (1–192)</td>
<td>11.5 Days (2–21)</td>
</tr>
</tbody>
</table>

Conclusion Despite having confidence in vaccination, many specialists notice the need to study this issue more thoroughly. Monitoring of doctors’ awareness on vaccination, creation of up-to-date specialized education media resources on immunoprophylaxis will not only enhance knowledge of specialists, but also maintain the confidence in vaccination in patients, and reduce the number of ungrounded refusals.
in the neonatal population. Preterm low birth weight neonates represent the group at highest risk of infection, mainly attributed to immunodeficiency present at birth. Antimicrobial therapy remains the main strategy for prophylaxis and treatment of infection. However, due to associated adverse effects, research into alternative therapeutic strategies such as immunoglobulin therapy has been prompted. One of the most important immune developments occurs intrauterine. Between weeks 30–32, transplacental transfer of maternal IgG to the foetus begins, conferring passive immunity. There is an incremental rise in foetal IgG with gestational age, thus preterm low birth weight neonates are born with a true deficiency of IgG antibodies. As low serum IgG has been reported to increase the risk of infection, IgG replacement therapy offers hope of enhancing immune competence and decreasing infectious episodes in this vulnerable population.

**Aim** We aimed to assess the efficacy of IVIG therapy in the prophylaxis of infection in preterm and low birth weight infants.

**Methods** All published studies of intravenous humanised IgG antibody use for prophylaxis of infection in preterm (<37 weeks) and low birth weight (<2500 g) infants were reviewed from 1986 to present. Science Direct, Medline, PubMed and Google Scholar were used to retrieve studies using keywords ‘Neonatal sepsis’, ‘Immunglobulins’, ‘Immune-modulation’, ‘Prophylaxis’, ‘Neonatal infection’, ‘Hypogammaglobulinaemia’, ‘Systemic infections’, ‘Primary Immunodeficiency’. Studies which reviewed IVIG therapy in the treatment of infection, where IgG was administered intramuscularly and where the population was outside the definitions of low birth weight or preterm neonates were all excluded.

**Results** From our review, we note that the literature reviewed concluded that there was either no reduction to a very marginal reduction in infection rates in neonates.

It is conclusive that while IVIG may potentially confer some benefit in infection prophylaxis and potentially other subtiler benefits, it does not demonstrate adequate prophylactic properties to justify routine use in preterm low birth weight neonates.

**Conclusion** While IVIG use is successful in treating hypogammaglobulinaemia (low serum Ig) in primary immune deficiencies, IVIG does not confer the same benefits in infection prophylaxis for neonates. Reasons for this may be attributable to the complexity of the interactions between neonatal immunity and neonatal pathogens. Further research to better understand the mechanisms underlying immune deficiency in preterm and low birth weight infants is advised to offer insight into alternative therapeutic solutions.

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**MESENCHYMAL STEM CELL THERAPY IN MICROVILLUS INCLUSION DISEASE**

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Aims We compared newborn infants with positive blood cultures to a control group of negative cultures in order to establish the usefulness of WCC and Neutrophil values in predicting culture-positive Early-Onset Sepsis.

**Methods** All positive cultures less than 48 hours from birth were identified. WCC and Neutrophil values at the time of culture were recorded, and compared to a similar cohort of infants aged less than 48 hours with negative blood cultures from 2001–2017. Data was analysed using MedCalc software.