We describe the changing epidemiology of Staphylococcus aureus infections in NICU at Leeds over 2008–2013 using laboratory and clinical data.

**Method** Leeds neonatal service experienced an increased number of cases of *Meticillin resistant Staphylococcus aureus* (MRSA) colonisation and bacteraemia in 2008–2009. A series of infection control interventions were implemented stepwise including:

- asepsis training.
- weekly screening.
- adoption of the Saving Lives central venous catheter package,
- daily antiseptic skin washes in neonates.
- 2% Chlorhexidine for skin asepsis prior to invasive procedures.

**Results** There has been a noticeable success in reduction in MRSA infections and no bacteraemia has been reported since 2009 (Graph 1). A similar improvement has not been seen in *Meticillin sensitive Staphylococcus aureus* (MSSA) bacteraemia.

A retrospective review carried out to review MSSA bacteraemia since 2008: 71% (27 of 38) cases were in neonates under 28 weeks, a vulnerable cohort currently excluded from daily skin washes.

**Conclusions** Given an association between MSSA colonisation and infection, further work should investigate infection control strategies that effectively target the highest risk groups and include active surveillance for MSSA and MRSA with subsequent decolonization.
speakers shared their experiences from Egypt and the US. Discussions focused on prenatal versus postnatal, early-onset versus late-onset, and hospital versus community acquired neonatal infections. Five topics represented high priorities for research in Egypt: 1) maternal vaginal colonisation patterns and maternal vaginal screening practices for common and emerging pathogens, 2) risk factors associated with hospital-acquired infections in delivery rooms and neonatal intensive care units, 3) antimicrobial resistance among pathogens affecting newborns in intensive care units, 4) education and compliance with infection control measures among staff, and 5) presentation and risk factors for neonatal infections associated with home deliveries. Webinar conferences will be conducted with each team to mature their project. A second workshop will be organised to develop a grant proposal for each research project to be submitted to international funding agencies.

**Conclusion** To address neonatal infections related mortality and morbidities, stakeholders involved in the care of the newborns in Egypt need to develop a prioritised future research agenda. A central taskforce need to facilitate the assembly of multicenter, multidisciplinary teams across the country to study these issues in collaboration with international expertise and funding resources.

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**PO-0555** PREDICTIVE VALUE OF ADMISSION SURFACE SWABS IN EARLY-ONSET NEONATAL SEPSIS IN EXTREMELY LOW BIRTH WEIGHT (ELBW) INFANTS IN A NEONATAL INTENSIVE CARE UNIT (NICU)

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**Introduction** Early Onset Neonatal Sepsis (EONS) is a major contributor to morbidity and mortality in ELBW infants. Admission surface swab cultures (SSC) form part of admission surveillance cultures, however its place in the management of EONS is questionable.

**Objective** To determine:
- Sensitivity, specificity and positive predictive value of SSC.
- If culture result would reflect on mean CRP value in first 72 hrs.
- If maternal swabs and mode of delivery correlated with microbiological result in the baby.

**Method**
- Retrospective cohort study.
- All inborn ELBW infants admitted into a Level 3 NICU from January 2010–December 2013.
- Maternal swabs; mode of delivery; infants SSC, blood cultures and mean CRP (within 72 h) were reviewed.

**Result**
- 161 ELBW infants were admitted and all had admission SSC, CRPs and blood cultures.
- 25 of 161 (15.5%) had positive SSC (Figure 1) of which 5 were mixed culture results.
- 11 of 161 (6.8%) had EONS (positive blood cultures) (Table 1).
- 4 of 25 (16%) of positive SSC had correlating blood culture – all of which were E coli; 1 subject had positive SSC and blood culture but did not correlate.

**Abstract PO-0555 Table 1** Bacteria grown from initial blood cultures

<table>
<thead>
<tr>
<th>Microorganism</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E coli</td>
<td>4 (36.3)</td>
</tr>
<tr>
<td>S aureus</td>
<td>1 (9.1)</td>
</tr>
<tr>
<td>Gram positive cocci</td>
<td>1 (9.1)</td>
</tr>
<tr>
<td>Group B streptococcus</td>
<td>1 (9.1)</td>
</tr>
<tr>
<td>Peptostreptococcus asaccharolyticus</td>
<td>1 (9.1)</td>
</tr>
<tr>
<td>Coagulase negative staphylococcus</td>
<td>3 (27.2)</td>
</tr>
</tbody>
</table>

**Abstract PO-0555 Table 2** Mean CRP for different microbiological result

<table>
<thead>
<tr>
<th>Microbiological result</th>
<th>Mean CRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin negative; Blood negative</td>
<td>5.8</td>
</tr>
<tr>
<td>Skin negative; Blood positive</td>
<td>9.3</td>
</tr>
<tr>
<td>Skin positive; Blood negative</td>
<td>17.2</td>
</tr>
<tr>
<td>Skin positive; Blood positive</td>
<td>15.0</td>
</tr>
</tbody>
</table>

\[F(3,10.166)=2.126; p = 0.173\]

**Abstract PO-0555 Figure 1** Bacteria grown from skin swab

**Abstract PO-0555 Figure 2** Percentage of positive microbiological result for different mode of delivery