Objectives
1) Establish prevalence in L&D Hospital.
2) Establish outcomes of urine toxicology (chain of custody in place) and implication on management.
3) Establish transparency in drug users regarding information of drug use.

Methods
Retrospective collection of urine toxicology requests to chemical pathology from Feb 2009 to Oct 2012. Requests were based on self-revelation of drug use by pregnant women and of those suspected during antenatal follow up. Data collection using antenatal database (CMIS), South England neonatal database (SEND) and pathology request database, ensuring no loss of data.

Results
Total requests: 106. 37% were negative (Some may represent false negatives). Out of 63% positive results, 54% were multidrug users. 72% positive results were not consistent with the substance of use suggested or suspected. None with negative results withdrew and discharged in 2–3 days once results available reducing length of stay. 40% Pregnant on methadone program. Only 11% had an employment or were students. 70% women were single or separated and 25% didn’t disclose their marital status. 19% required treatment.

Abstract PO-0660 Table 1

<table>
<thead>
<tr>
<th>Three moments of data collection:</th>
<th>3 days before surgery</th>
<th>Day of surgery</th>
<th>3 days after surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data collected</td>
<td>N = 69</td>
<td>N = 69</td>
<td>N = 63</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>13.0%</td>
<td>87.0%</td>
<td>44.4%</td>
</tr>
<tr>
<td>Maximum dose (mcg/kg)</td>
<td>2.1 (1.9 to 2.2)</td>
<td>3.2 (2.3 to 4.8)</td>
<td>2.0 (1.8 to 3.1)</td>
</tr>
<tr>
<td>Maximum dose/day (mcg/kg)</td>
<td>3.5 (2.3 to 5.0)</td>
<td>5.0 (3.0 to 5.0)</td>
<td>3.8 (2.0 to 5.8)</td>
</tr>
<tr>
<td>Morphine</td>
<td>58.0%</td>
<td>95.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Maximum dose/day (mg/kg)</td>
<td>0.24 (0.14 to 0.43)</td>
<td>0.30 (0.20 to 0.40)</td>
<td>0.43 (0.27 to 0.54)</td>
</tr>
<tr>
<td>Patients assessed</td>
<td>85.5%</td>
<td>91.3%</td>
<td>95.2%</td>
</tr>
<tr>
<td>COMFORTneo score</td>
<td>Median (IQR)</td>
<td>10 (9.5 to 11)</td>
<td>11 (10 to 12)</td>
</tr>
<tr>
<td>NRS pain</td>
<td>Median (IQR)</td>
<td>0 (0 to 1)</td>
<td>1 (0 to 2.4)</td>
</tr>
<tr>
<td>Number of assessments</td>
<td>432</td>
<td>240</td>
<td>796</td>
</tr>
<tr>
<td>COMFORTneo ≥ 14</td>
<td>9.5%</td>
<td>18.7%</td>
<td>16.5%</td>
</tr>
<tr>
<td>NRS pain ≥ 4</td>
<td>10.4%</td>
<td>17.7%</td>
<td>10.7%</td>
</tr>
</tbody>
</table>

Background and aims
Necrotizing enterocolitis (NEC) is an extremely painful complication in premature neonates. To our knowledge there are no pain management guidelines for NEC. We studied pain management in a cohort of neonates operated on for NEC in our hospital over a 5-year period.

Methods
Data from 2008–2012 including COMFORT neo scores and analgesic treatment were retrieved from our patient data management system. COMFORT neo scores of 14 or higher and numeric rating scale pain score (NRS) of 4 or higher suggest pain or discomfort.

Results
69 neonates (29 boys, 40 girls) were operated on at median postnatal age 10 days (range 4–82 days). The majority was Bell’s stage 3 (81.1%), gestational age ranged from 24.2 to 36.4 weeks. Twenty children (29%) died, of whom 9 on day of surgery or the next day.

Conclusions
Patients received relatively high doses of opioids leading to acceptable pain scores for such a painful condition. Benchmarking and prospective studies are necessary next steps.

Abstract PO-0661

TRANSFER OF BEHAVIOURAL NEONATAL RESUSCITATION SKILLS LEARNT ON SIMULATOR IN THE SIMULATION ROOM TO CLINICAL PRACTICE IN THE DELIVERY ROOM

Background
Eva, Bates, Henry. Pediatrics/Neonatology, Mercy Hospital and Medical Center and University of Chicago, Chicago, USA; Nursing, Mercy Hospital and Medical Center, Chicago, USA; Nursing, University of Illinois at Chicago, Chicago, USA

Methods
Data from 2008–2012 including COMFORT neo scores and analgesic treatment were retrieved from our patient data management system. COMFORT neo scores of 14 or higher and numeric rating scale pain score (NRS) of 4 or higher suggest pain or discomfort.

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69 neonates (29 boys, 40 girls) were operated on at median postnatal age 10 days (range 4–82 days). The majority was Bell’s stage 3 (81.1%), gestational age ranged from 24.2 to 36.4 weeks. Twenty children (29%) died, of whom 9 on day of surgery or the next day.

Conclusions
Patients received relatively high doses of opioids leading to acceptable pain scores for such a painful condition. Benchmarking and prospective studies are necessary next steps.
**Introduction** Transfer of behavioural skills learnt in the simulation room to the delivery room setting has not been well addressed.

**Methodology** We queried the physicians and nurses who participated in resuscitation in an actual delivery room setting. Their training included simulation based training for previous 4 years with emphasis on behavioural skills. Open ended questions included: (1) What went well?, (2) What did not go well?, (3) What would you do differently?, (4) Other comments.

**Results** 32 events attended by teams of nurses and physicians were the focus of analysis. There was overlapping of physicians and nurses attending different events. 74 nurses and 35 physicians completed questionnaires that formed the database. Teamwork and communication (2 hallmarks of behavioural skills) were analysed. 40/74 (54.05%) of nurses and 13/35 (37.14%) of physicians responded that teamwork was good. 11/74 (14.86%) of nurses and 12/35 (34.28%) physicians responded that communication was good. None of the nurses commented negatively about the teamwork but 2/35 (5.71%) physicians mentioned that teamwork did not go well. 10/74 (13.51%) of nurses and 6/35 (17.24%) of physicians mentioned that communication was not good. Thus, 68.91% of nurse responses and 71.42% of physician responses were favourable for teamwork and communication. Calling for help and delegating responsibility were also noted on the responses.

**Discussion** Based on our open ended questionnaire, we conclude that physicians and nurses consider teamwork and communication to be important and these skills are being utilised in the delivery room setting. These results encourage us to continue our study.

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**Poster abstracts**

**Abstract PO-0663 Table 1** Incidence of congenital anomalies based on race, birth weight, and antenatal detection

<table>
<thead>
<tr>
<th>Anomalies</th>
<th>Ethnicity</th>
<th>Low birth weight (LBW)</th>
<th>Antenatal detection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hispanics</td>
<td>&lt;2.5 kg</td>
<td>&gt;2.5 kg</td>
</tr>
<tr>
<td>Major</td>
<td>279</td>
<td>96</td>
<td>302</td>
</tr>
<tr>
<td>Minor</td>
<td>1444</td>
<td>148</td>
<td>1802</td>
</tr>
</tbody>
</table>

**Introduction** Cardio-pulmonary compromise in fetus and newborn secondary to loose or tight nuchal cord at or prior to delivery is an important area for research. Our aim in this study is to evaluate umbilical arterial (UA) and venous (UV) pH, pO2, pCO2, base deficit and the umbilical veno-arterial difference (UV-a) in these parameters in newborns born following nuchal cord.

**Methodology** UA and UV pH, pO2, pCO2, and base deficit of 47 newborns born following tight nuchal cord, 44 newborns born following single loose nuchal cord and 44 newborns born without nuchal cord were compared across.

**Results** Mean UA pH (7.25 vs. 7.28) was lower in the nuchal cord group and mean UA pCO2 (58.11 vs. 54.38) was higher in the nuchal cord group; however the difference was not statistically significant. No difference was found in pO2 or base deficit across groups. However, nuchal cord to control group comparisons of UV-a pH and UV-a pCO2 change were both significant (p < 0.05). No UV-a pH and pCO2 differences between control and tight nuchal cord were observed. UV-a pO2 difference and UV-a base deficit difference was also non-significant across groups.

**Discussion** UA acidosis was observed in group with nuchal cord, as seen by lower mean UA pH and elevated UA pCO2 (statistical non-significance could be due to low power) and UV-a difference in pH and pCO2 (statistically significant). Large prospective studies would be needed to clearly understand the pathophysiology of acidosis in newborns born following nuchal cord.

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**PO-0662** **UMBILICAL CORD BLOOD GASES ANALYSIS IN PREGNANCIES COMPLICATED BY NUCHAL CORD**

R. Vasa, T. Patel, R. Dimitrov. Pediatrics, Mercy Hospital and Medical Center and University of Chicago, Chicago, USA; Pediatrics, Mercy Hospital and Medical Center, Chicago, USA; Biostatistics, Mercy Hospital and Medical Center, Chicago, USA

10.1136/archdischild-2014-307384.1303

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**PO-0663** **REVIEW OF BIRTH DEFECTS IN A COMMUNITY HOSPITAL OVER A 10-YEAR PERIOD**

M Veg, E Erickson, B Rajagopala. Division of Neonatology/Department of Pediatrics, Lincoln Medical and Mental Health Center Affiliate of Weill Medical College/Corn, New York, USA

10.1136/archdischild-2014-307384.1304

**Background** Birth defects are responsible for majority of morbidity in neonates and are detected antenatally or postnatally.

**Aims** Our aim is to review types of birth defects that have occurred over a 10-year period in an urban community hospital.

**Methods** Data was analysed retrospectively by reviewing documentation from EMR from January 1, 2003 through December 31, 2012.

**Results** We analysed the incidence of congenital anomalies based on rate, birth weight, and antenatal detection as shown in Table 1, taking into account the system-based occurrence for any clustering of defects. During the study period, there were 24,203 live births. 2156 infants were identified with congenital anomalies, incidence rate of 8.90%; including multiple anomalies. There were a total of 2348 anomalies, including single and multiple unrelated anomalies. 16.9% were classified as major and 83.04% as minor.

**Conclusion** Chromosomal and major structural anomalies were detected using prenatal testing, like amniocentesis and imaging studies. Despite preventive measures, counselling and termination of pregnancy where applicable, birth defects continue to occur. The recent Federal Policy on monitoring of infants by Pulse Oximetry prior discharge helps to detect ductal dependent cardiac defects and identify those missed by clinical examination, necessitating it as an additional tool.

**PO-0664** **SUPERGLUE, A SIMPLE AND EFFECTIVE METHOD FOR SEALING AN UNTIGHT CATHETER FOR PERITONEAL DIALYSIS**

M Wald, A Schneider, C Weisser, J Brandner. Department for Pediatrics Division for Neonatology, Salzburger Landeskliniken/Paracelsus Medical University, Salzburg, Austria

10.1136/archdischild-2014-307384.1305

**Conclusion** Chromosomal and major structural anomalies were detected using prenatal testing, like amniocentesis and imaging studies. Despite preventive measures, counselling and termination of pregnancy where applicable, birth defects continue to occur. The recent Federal Policy on monitoring of infants by Pulse Oximetry prior discharge helps to detect ductal dependent cardiac defects and identify those missed by clinical examination, necessitating it as an additional tool.