intravenously or 6% nasogastrically). When we asked what would make parents confident about going home, the most common response was ‘after reassurance that the child is not dehydrated’. Other responses referred to advice or physical symptoms.

**Conclusion** Knowledge of parental expectations provided by this study, particularly with regard to expectations of investigations and treatment could enable physicians to provide more comprehensive care, with particular emphasis on explanation. This may improve parental satisfaction and reduce re-attendance.

**C238** MAKE LOVE NOT WAR: BRIDGING THE GAP BETWEEN PRIMARY AND SECONDARY PEDIATRIC CARE

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**Aim** To determine the number of presentations to a new Children’s Emergency Department (CED) that could have been managed in primary care.

**Methods** All Patients were assessed to determine the appropriateness of attendance. Appropriateness was defined as any patient referred from primary care, or requiring any period of observation, a procedure or an investigation, or that were admitted. Patients appropriate for primary care management were defined as children that did not meet the above criteria, had a simple illness with no significant underlying pathology and were green in accordance to the NICE traffic light system. The outcome of all GP referrals was also reviewed.

**Results** 896 attendances (viral type illness 47%, injuries 32%) were reviewed. 27.4% were deemed more appropriate for primary care with 60% being < 5 years (23% < 1 year). The majority (68.6%) were self-referral, 62% from within a 5 miles radius and 30% from just 10 of the 111 GP practices.

16% were referred from primary care, 24.3% were admitted. The estimated minimum cost of these additional referrals was £286 520 per year, with 64.2% of these costs being children under the age of 5.

**Discussion** A large number of attendances to the CED could be managed in primary care. The health system needs to adapt in order to meet users’ needs and continue the ethos of right patient right time. Using this audit data the local primary care Clinical Commissioning Group (CCG) and the hospital trust have worked together to implement many changes. The out of hours (OOH) service has been reinstated allowing specific patients to be triaged straight back to the primary care centre, who are prioritising seeing and calling back the under 5 year olds. CED has developed formal care pathways for common illness for use in primary care; CED is in direct liaison with the local GP forums to address concerns. Ultimately, CED services need to adapt to be able to care for an increasing volume of attendances, and primary and secondary care need to “make love not war”.

**C239** REDUCING NEONATAL READMISSIONS AND RE-ATTENDANCES WITH JAUNDICE: ROLE OF TRANSCUTANEOUS BILIRUBINOMETERS

doi:10.1136/archdischild-2013-304107.251

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**Aims** Up to 60% of newborns have jaundice within the first week of life. Significant jaundice necessitates readmission to hospital. NICE guidance on neonatal jaundice in 2010 recommending checking bilirubin levels and not relying on visual inspection alone led to increased numbers of babies attending our Emergency Department (ED). We aimed to address the raising re-attendances and readmissions to paediatrics.

**Methods** An Audit identified increasing readmissions within the first week of life. We collected data for readmissions to wards and re-attendances to ED due to physiological jaundice. We compared readmissions prior to use of transcutaneous bilirubinometers (TCBRs) and for one month post introduction. A monthly average was used for comparison.

**Results** Over the years, the proportion of infants readmitted increased (Table 1). Most were term breastfed babies. Length of stay increased when discharged early. TCBRs can be used as a screening tool. We identified that screening by Community Midwives at home could decrease hospital referrals. TCBRs were obtained in May 2012 through charity funding.

**Abstract C239 Table 1** Readmissions within first week of life 2009-2011

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of readmissions for babies &lt; 1 week of discharge</td>
<td>26</td>
<td>42/72 (58%)</td>
<td>73/82 (89%)</td>
</tr>
<tr>
<td>Proportion readmitted for jaundice, poor feeding or weight loss with jaundice</td>
<td>13/26 (50%)</td>
<td>28/42 (66%)</td>
<td>62/73 (84%)</td>
</tr>
</tbody>
</table>

Post TCBR use, average monthly re-attendances to ED fell from 40 to 16 (Table 2). Average monthly readmissions and financial costs to the Primary Care Trust (PCT) were calculated.

**Abstract C239 Table 2** Re-attendances and readmissions: pre and post TCBR use

<table>
<thead>
<tr>
<th></th>
<th>Pre TCBRs 01/12-03/12</th>
<th>Monthly average</th>
<th>PCT billing Post TCBRs introduction 06/2012</th>
<th>PCT billing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time in months</td>
<td>3 months</td>
<td>11</td>
<td>£16,916</td>
<td>£1,744</td>
</tr>
<tr>
<td>No of Re-attendances to ED</td>
<td>122</td>
<td>40.6</td>
<td>16</td>
<td>£1,744</td>
</tr>
<tr>
<td>No of Readmissions</td>
<td>28</td>
<td>9.3</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Days of admission</td>
<td>78</td>
<td>26</td>
<td>£14,495</td>
<td>£7,931</td>
</tr>
</tbody>
</table>

**Conclusions** Introduction of TCBR’s reduced attendance rates to ED, but did not significantly affect readmissions. PCT billing reduced significantly. Families could be monitored at home. We are pursuing other strategies like producing a DVD to promote awareness of jaundice and improve breast feeding support and plan to reanalyse following this.

**C240** THE ROMLA MATRICES AS A TOOL IN INVESTIGATING GUIDELINE ADHERENCE AND CLINICAL OUTCOME: ARE THEY USEFUL IN CHILDREN WITH HEAD INJURIES?

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**Background** Paediatric head Injuries (HI) are a common presentation to emergency departments. National guidance is available to facilitate neuroimaging decision making in this cohort. However it is unclear how guidelines and their evidence base influence practice and patient outcomes. The ROMLA matrices are 2X2 classification algorithms relating evidence base adherence to either diagnostic accuracy (Rolma 1) or clinical outcome (Rolma 2).

**Aims** To determine ROMLA matrices accuracy for the diagnosis and management of HI in children in the ED. To determine if ROMLA matrices can help make diagnosis and management of HI more consistent and reduce re-attending to ED.

**Methods** We identified 31 patients with HI over an 18 month period. We collected data on patient demographics, injury details, diagnosis, Imaging performed, management, and outcomes. We calculated ROMLA matrices for each patient, and reviewed for accuracy with our clinical colleagues.

**Results** We calculated ROMLA matrices for 31 patients with HI. Of the 31 patients, 19 were included in the analysis, 5 had no imaging for various reasons and 7 were in the PICU and therefore outside of our ED - 14% were under 1 year old, with an average age of 5.4 years. The majority of HI’s were falls (63%); 31% had an associated loss of consciousness. All patients had been imaged with either CT or MRI, only 1 patient with no imaging. 22 patients had a diagnosis of HI, 6 patients had other diagnoses. The majority of HI’s were classified as moderate (68%); 32% were severe. 68% of HI’s were classified as moderate; 32% severe. The sensitivity of the ROMLA matrices for the diagnosis of HI in children was 80% and specificity was 50%. The ROMLA matrices correctly classified 22/31 patients (71%) and inaccurately classified 9/31 patients (29%). There was a high level of agreement between the ROMLA matrices and the clinical team in 92% of cases.

**Conclusions** The ROMLA matrices have good sensitivity and specificity for the diagnosis of HI in children. They can be used as a tool in investigating guideline adherence and outcome, to help make diagnosis and management of HI more consistent and reduce re-attending to ED.