intra venously 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.

**G238 MAKE LOVE NOT WAR: BRIDGING THE GAP BETWEEN 
PRIMARY AND SECONDARY PEDIATRIC CARE**

S Fosker, H Millar, O Rahman, C Bevan. Childrens Emergency Department, Royal 
Alexandra Children’s Hospital, Brighton, UK; Brighton and Sussex Medical School, 
University of Sussex, Brighton, UK

**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 appropriate-
ness 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 (q8.6%) 
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 
place right time. Using this audit data the local primary care Clini-
cal 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”.

**G239 REDUCING NEONATAL READMISSIONS AND 
RE-ATTENDANCES WITH JAUNDICE: ROLE OF 
TRANSCUTANEOUS BILIRUBINMETERS**

V Ponnusamy, A D’Amore. Neonatal Intensive Care Unit, Addenbrookes Hospital, 
Cambridge, UK

**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 check-
ing 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 readmis-
sions 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 G239 Table 1 Readmissions within first week of life 
2009-2011**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&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 G239 Table 2 Re-attendances and readmissions: pre and 
post TCBR use**

<table>
<thead>
<tr>
<th>Time in months</th>
<th>Pre TCBRs 01/12–03/12</th>
<th>Monthly average</th>
<th>Post TCBRs introduction 06/2012</th>
<th>PCT billing</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 months</td>
<td>122</td>
<td>40.6</td>
<td>1</td>
<td>£16,916</td>
</tr>
<tr>
<td>No of Re-attendances to ED</td>
<td>16</td>
<td>8</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>No of Readmissions</td>
<td>28</td>
<td>9.3</td>
<td>8</td>
<td></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 aware-
ness of jaundice and improve breast feeding support and plan to 
reanalyse following this.

**G240 THE ROMLA MATRICES AS A TOOL IN INVESTIGATING 
GUIDELINE ADHERENCE AND CLINICAL OUTCOME: ARE 
THEY USEFUL IN CHILDREN WITH HEAD INJURIES?**

S Winearls, D Matheson, D Roland, Emergency Department, Wanganui Hospital 
Wellington, New Zealand; Medical Education, Nottingham University, Nottingham, UK; 
Pediatic Emergency Medicine Leicester Academic (PEMLA) Group, Leicester Univer-
sity, Leicester, UK

**Background** Paediatric head Injuries (HI) are a common presenta-
tion 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 practise 
and patient outcomes. The ROMLA matrices are 2X2 classification 
algorithm relating evidence base adherence to either diagnostic 
accuracy (Romla 1) or clinical outcome (Romla 2).
Abstract G240 Table 1  The Rolma Matrices

<table>
<thead>
<tr>
<th>Rolma 1 Matrix (Rolma 2 domains in brackets)</th>
<th>Diagnosis (Outcome)</th>
<th>Sub Optimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment (Management)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evidence base consistent</td>
<td>Correct</td>
<td>Incorrect Application (Clinical skill deficiency)</td>
</tr>
<tr>
<td>Evidence base inconsistent</td>
<td>Optimal</td>
<td>Incorrect Application (Clinical skill deficiency)</td>
</tr>
<tr>
<td></td>
<td>Incorrect Application (Clinical skill deficiency)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience/expertise</td>
<td>Performance/training issue</td>
</tr>
</tbody>
</table>

The aim of this study was to trial the feasibility of the ROLMA matrices as a methodological framework to explore the interplay between guidelines and clinical practice.

Method  The notes for 100 HI patients were reviewed. The assessing clinician’s evaluation and management were assessed for guideline concordance and the eventual outcome was recorded. Qualitative notes were also taken. The ROLMA matrices were applied and linked to the qualitative notes.

Results  In this sample the ROLMA matrices did not show a clear relationship between guideline concordance and diagnostic accuracy. The ROLMA matrix did however provide a framework for assessing compliance with guidelines and whether or not non-compliance with guidelines is related to inaccurate assessment or even adverse outcome (Table 2 and 3). Even in this small group the ROLMA matrices provided a mechanism for identifying and categorising guideline non-adherence, and identifying adverse events so that this can be fed back to clinicians. The data set is particularly informative when combined with qualitative data.

Conclusion  The ROLMA matrices provide a conceptual framework to understand the interplay between evidence base, expertise and outcome. They are useful audit tools on a departmental level to categorise guideline non-adherence and relate this to potential adverse events such as, in this study, unnecessary irradiation. The ROLMA matrix shows promise as a tool for a larger study to detect associations between adverse events and clinicians practice.

Abstract G240 Table 2

<table>
<thead>
<tr>
<th>ROLMA 1</th>
<th>Diagnosis</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Potential ICI</td>
<td>Minor HI</td>
</tr>
<tr>
<td>Evidence base consistent</td>
<td>7</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>i. Initial assessment considered NAI senior review decided low risk of NAI.</td>
<td></td>
</tr>
<tr>
<td>Evidence base inconsistent</td>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ii. 2 cases diagnosed as minor head injury but had documented drowsiness</td>
<td></td>
</tr>
</tbody>
</table>

Abstract G240 Table 3

<table>
<thead>
<tr>
<th>ROLMA 2 (with minor head injuries removed)</th>
<th>Clinical Outcome</th>
<th>Suboptimal/potentially suboptimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidence base consistent</td>
<td>Optimal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pt 13 on admission low GCS had normal CT Head</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pt 14 &gt; 3 vomits had normal CT Head</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pt 20 RTA reduced GCS CT Head normal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pt 76 10 year old amnesia CT Head ordered by CT3 which was normal cns review than home</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pt 84 Low GCS CT Head normal</td>
<td></td>
</tr>
<tr>
<td>Not Evidence base consistent</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pt 43 child vs car speed 30mph, facial contusion only CT Head indication mechanism. Consultant said no CT Head pt discharged several days later well without issue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pt 64 &gt; 3 vomits admitted rather than CT Head discharged well after period of observation</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pt 24 Initial assessment missed &gt; 5cm haematoma on &lt;1 year old and planned observation nursing staff concern resulted in a rapid re-evaluation finding noted CTH head showed paretal skull fracture.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pt’s 48 &amp; 100 – 2 pt’s with documented drowsiness or reduced GCS that were sent home neither returned or has had any Leicester based imaging or review.</td>
<td></td>
</tr>
</tbody>
</table>

Aims  In acutely ill children, weights are often estimated to calculate drug and fluid dosage. Many methods exist, attempting to balance complexity and accuracy. The most accurate are based on physical measurements, but those commonly used in the UK are based on age alone. In 2011 the Advanced Paediatric Life Support (APLS) recommendations changed from using a single formula to three. Meanwhile the UK Resuscitation Council maintains that complexity increases risks of error and still advocates the single...