Children who are at low risk of serious illness and who do not meet the exemption criteria are discharged home from triage with advice for home management of common conditions whilst being given red flag symptoms to observe for.

Children are assessed using condition led pathways based on NICE pathways. The pathways cover a range of illness and minor injury related presentations.

**Results** Since August 2020 on average, we have sent home 22% of our patients from triage using this process with an average length of stay time of 13.1 minutes calculated from the time patients book in for triage and when they are being discharged home.

We have seen a less than 4% return rate with no serious incidents identified and the median length of stay for returning patients is 102 minutes.

We have received a positive response from parents and families with 92% reporting being very satisfied with the service provided and 69% stating that the advice given at triage would alter their future behaviors in accessing services or not.

**Conclusion** This process works to ensure that patients attending the Emergency Department are seen and managed in the correct setting including their own home, improving patient safety and flow by reducing unnecessary attendances.

We hope to change future behaviors of which service patients and their families access and will continue to monitor this retrospectively.

As well as benefiting patients and their families this new way of working has had a positive impact on staff morale both within the Clinical and Nursing Team giving opportunities for professional development and job satisfaction.

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**Abstract 258 Table 1**

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with minor injuries or that had already been sent to A&amp;E or from A&amp;E</td>
<td>Patients requiring blood tests</td>
</tr>
<tr>
<td>Patients presenting with minor illnesses not requiring urgent observation or who would usually be seen by a GP</td>
<td>Unstable patients requiring urgent medical assessment</td>
</tr>
</tbody>
</table>

**Abstract 258 Table 2**

<table>
<thead>
<tr>
<th>Month</th>
<th>Total Patients Per Month</th>
<th>Average Time in Department Per Patient</th>
<th>Average Time to First Clinician Per Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>July - September (BEFORE RAD)</td>
<td>2,690</td>
<td>232</td>
<td>95</td>
</tr>
<tr>
<td>October - December (AFTER RAD)</td>
<td>2,768</td>
<td>244</td>
<td>97</td>
</tr>
</tbody>
</table>

**Conclusion** RAD made a meaningful difference to morale and working relationships, and quantitative feedback suggested it had a positive impact on flow. RAD has therefore continued and the process refined with modified inclusion/exclusion criteria and improvements to equipment as per staff feedback.

Limitations included inability to RAD on all shifts due to staffing availability or emergency attendances, and the difficulty of data capture around this. Results may therefore underestimate the benefit of the process.

Future considerations include how to adapt it when much of our primary care and minor injuries throughput will be sent to our Urgent Treatment Centre. There will still be a role for senior clinicians at the front door, but their scope of practice may change. Triggers for commencing/ceasing RAD’ing during shifts and inclusion/exclusion criteria could also be further explored.

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**Abstracts**

**Totally Rad Man! Riding the (RSV Surge) Wave...**

Sarah Jennifer Jenny Gregg, Rachael Mitchell, King’s College Hospital, London

10.1136/archdischild-2022-rcpch.8

**Aims** Rapid assessment (at triage) is well-recognised in adult Emergency Departments but to date has not been commonly used in Paediatrics, for both children presenting with injuries as well as those with febrile illnesses to expedite discharge.

The aim of this pilot was to introduce Rapid Assessment and Discharge (RAD) in our Paediatric ED by senior clinicians to combat the workload expected due to the RSV surge. It was hoped that this would lead to decompressing the waiting room (reducing staff and patient/parent stress levels) and allow both medical and nursing staff to focus on providing quality care to the more unwell majors patients.

**Methods** RAD was introduced as a pilot after discussion between senior Paediatric ED consultants and nurses.

It was carried out when more than one senior clinician was available (defined as registrar or consultant); one to oversee flow of patients through the department and support junior decision-making/patient reviews, another to RAD.

A cubicle was assigned for this purpose and patients were assigned by the triage nurse. Inclusion criteria and exclusion criteria were devised (table 1). RAD was not carried out outside 10am-10pm due to medical staffing levels.

Qualitative data was collected following feedback from staff obtained via anonymous SurveyMonkey after one month.

Objective data was obtained from the ED computer system for average length of stay in the department and time to first clinician per patient for comparison for 3 months before (July-September 2021) and after the introduction of RAD (October-December 2021).

**Results** Analysis of staff survey data demonstrated that 100% of responders felt that RAD improved flow of patients through the department and improved patient care.

Thematic analysis of free text responses revealed that the RAD process was thought to be ‘excellent for patient care’, ‘improve staff morale and relationships between nurses and doctors’.

Suggested RAD process improvements elicited the following themes; a faster more reliable computer, larger cubicle with a separate slot for RAD patient cards adjacent to it and a designated ENT trolley.

Despite reduced staffing levels and higher acuity of patients, average length of stay and time to first clinician before and after the introduction of RAD were 232 and 244 minutes, and 95 and 97 minutes respectively (table 2).

**Conclusion** RAD made a meaningful difference to morale and working relationships, and quantitative feedback suggested it had a positive impact on flow. RAD has therefore continued and the process refined with modified inclusion/exclusion criteria and improvements to equipment as per staff feedback.

Future considerations include how to adapt it when much of our primary care and minor injuries throughput will be sent to our Urgent Treatment Centre. There will still be a role for senior clinicians at the front door, but their scope of practice may change. Triggers for commencing/ceasing RAD’ing during shifts and inclusion/exclusion criteria could also be further explored.

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**Differently Vaccinated:**

**Differentiating Vaccine Reactions from Invasive Bacterial Infections in Infants Presenting to the Emergency Department in the 4CMENB Era: A Retrospective Descriptive Comparison**

1. Samantha Shannon-Wells, 1Emily Tough, 1Neda So, 1Daniel O’Connor, 1Matthew Snape.
2. Oxford University Hospitals NHS Foundation Trust, Oxford; 2Oxford Vaccine Group, Department of Paediatrics, University of Oxford, Oxford, UK

10.1136/archdischild-2022-rcpch.9
Aims Since the introduction of the capsular group B Meningococcal vaccine (4CMenB) into the routine UK immunisation schedule in 2015 there has been an increase in children with transient Adverse Events Following Immunisation (AEFI) such as fever and irritability presenting to primary care and the Emergency Department (ED). We aimed to determine if clinical or laboratory features on presentation can differentiate infants with AEFI from those with Invasive Bacterial Infection (IBI).

Methods During a service evaluation and improvement project we conducted a retrospective descriptive study of infants with IBI, Urinary Tract Infection (UTI) or AEFI from two previously published cohorts. Children with AEFI or UTI were identified by reviewing all discharge summaries of infants presenting to ED in Oxfordshire, UK, between 2011-2018 (spanning the introduction of 4CMenB). Patients were classified as either ‘probable-AEFI’ (symptoms <48-hours after immunisation, no alternative focus found), ‘possible-AEFI’ (symptoms <48-hours, possible alternative focus) or UTI by two clinicians independently. Children with IBI were identified from all positive blood and cerebrospinal fluid (CSF) cultures in children 7-weeks to 8-months of age.

We compared presenting clinical symptoms, including National Institute for Health and Care Excellence (NICE) ‘traffic-light’ risk of severe illness, and laboratory test results. To enable comparison with the post immunisation inflammatory response in infants not requiring medical evaluation, we also included blood results taken at 24-hours post-immunisation from 4-month-old infants enrolled in the EUCLIDS 4CMenB study.

Results The study included 192 infants: 97 with probable-AEFI, 25 possible-AEFI, 44 IBI & 27 UTI. 95% with IBI had blood tests (FBC and CRP), compared with 28% probable-AEFI, 48% possible-AEFI and 42% UTI. Blood tests from 21 EUCLIDS participants were available.

CRP was the only blood marker significantly different between IBI and probable-AEFI (p=0.028, figure 1). CRP at presentation had AUC of 0.66 (95% CI: 0.52–0.80) for predicting IBI, with a CRP value >55.5mg/L differentiating IBI from AEFI with high specificity (100%) but low sensitivity (49%). However, CRP was not statistically different between IBI and AEFI when restricted to children after 4CMenB introduction. Positive urine leucocytes and nitrates were both significantly more common with IBI than AEFI (table 1).

Irritability, rash, vomiting, diarrhoea, and rigors were all significantly more common in IBI than probable-AEFI. Traffic-light classification as ‘High’ or ‘Low’ risk was strongly predictive of outcome, with odds ratios of 4.02 (1.61–10.32) and 0.15 (0.04–0.43) for high- and low-risk respectively. However, 5 cases of IBI were mis-classified as low-risk on initial presentation. Intermediate-risk classification did not predict outcome. Seizures and fever were not statistically different between groups.

Inflammatory markers in ‘well’ infants 24-hours after immunisation were significantly raised, and either the same or higher than infants with probable AEFI.

Conclusion Clinical features on presentation may aid risk stratification but cannot reliably differentiate IBI from AEFI in infants presenting to the emergency department. Blood results are generally unhelpful due to post-vaccination inflammatory responses, although CRP >55.5mg/L is highly suggestive of IBI. Improved biomarkers and clinical prediction tools are required to aid management in febrile infants post-vaccination.

Abstract 269 Table 1 Odds ratios for predicting IBI versus probable-AEFI, restricted to statistically significant categorical variables. *Infinite estimate determined due to zero observation in probable-AEFI group

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds ratio</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rash</td>
<td>2.91</td>
<td>[1.10 - 7.71]</td>
</tr>
<tr>
<td>Vomiting</td>
<td>3.79</td>
<td>[1.51 - 9.47]</td>
</tr>
<tr>
<td>Irritability - clinician reported</td>
<td>2.64</td>
<td>[1.14 - 6.32]</td>
</tr>
<tr>
<td>Rigors - clinician reported</td>
<td>Inf*</td>
<td>Inf*</td>
</tr>
<tr>
<td>NICE Classification of Risk of Serious Illness</td>
<td>4.02</td>
<td>[1.61 - 10.32]</td>
</tr>
<tr>
<td>High</td>
<td>1.20</td>
<td>[0.47 - 3.29]</td>
</tr>
<tr>
<td>Low</td>
<td>0.15</td>
<td>[0.04 - 0.45]</td>
</tr>
<tr>
<td>Leucocyte positive</td>
<td>11.51</td>
<td>[8.66 - 67.43]</td>
</tr>
<tr>
<td>Nitrates positive</td>
<td>Inf*</td>
<td>Inf*</td>
</tr>
</tbody>
</table>

Abstract 269 Figure 1

A6 Arch Dis Child 2022;107(Suppl 2):A1–A537

Abstracts

Aims Point-of-care testing (POCT) is diagnostic testing performed at or near to the site of the patient. It has the potential to provide rapid and accurate results that can help deliver optimal patient care in emergency and acute care settings, help prevent and resolve department crowding and protracted discharge times, in addition to enhanced patient satisfaction.