The Efficiency of A Fast Assessment Bay in the Emergency Department

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Aim of Study
We aimed to improve targets and flow through a district county hospital emergency department by implementing an alternate way of seeing patients: a fast assessment bay (FAB) rather than the "traditional" (non-FAB) route through the department, figure 1.

Non-FAB AKA Traditional Route
Nurse Triage → Doctor Review → Investigations/Treatment → Referral/Discharge

FAB Route
Doctor and Nurse Triage → Investigations/Treatment → Doctor Review → Referral/Discharge

Outline of Project
Dorset County Hospital has a catchment area of 210,000. The Emergency Department was originally designed to process 24,000, due to increase in population and pressure it now processes 48,000 people annually. The implementation of the FAB was in a bid to remedy this expansion of patients and to improve working pressures for all members of staff.

In FAB all patients seen in majors were assessed by a doctor and a nurse in under 10 minutes. They would briefly clerk the patient and order initial investigations or treatments before being fully clerked at a later date.

Method and Data Collection
The FAB system was run on an ad hoc basis. It was trialled over 8 different dates in late December to early February during the height of winter pressures.

We compared 112 patients who were processed via the fast assessment bay (FAB) and 112 patients who had been processed via the "traditional" route (non-FAB). The non-FAB patients data was taken from the same dates outside the hours of the FAB system running and within "normal working hours."

Factors assessed
1. Initial time to be assessed
2. Time to take to receive antibiotics
3. Time to receiving analgesia
4. Time to imaging/bloods
5. Time taken for patient to be referred
6. Number of breeches

Gold Standard
1. All majors patients be triaged/initial assessment within 15 minutes as per RCEM 2
2. Receive antibiotics within one hour of arrival as per NICE 3
3. Receive analgesia within 2 hour of arrival as per departmental targets
4. Aim to refer patient within 2hr 30mins in department as per local department

Results

Time Taken to Initial Assessment

<table>
<thead>
<tr>
<th></th>
<th>FAB</th>
<th>Non-FAB</th>
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</thead>
<tbody>
<tr>
<td>Average</td>
<td>15 minutes</td>
<td>1 hour 10 mins</td>
</tr>
</tbody>
</table>

Deemed compliant if seen within 15 minutes of arrival

FAB patients seen on average 55 minutes faster than non-FAB patients

Time to Receiving Analgesia

<table>
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<tr>
<th></th>
<th>FAB Average 48 minutes</th>
<th>Non-FAB Average 2hrs 14 minutes</th>
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</thead>
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Deemed compliant if received within 1 hour of arrival

FAB patients received analgesia faster than non-FAB patients

Time to Receiving Investigations

<table>
<thead>
<tr>
<th></th>
<th>FAB Patients Average</th>
<th>Non-FAB Patients Average</th>
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<tbody>
<tr>
<td>Time taken</td>
<td>34 minutes</td>
<td>50 minutes</td>
</tr>
<tr>
<td>Time back</td>
<td>1 hour 28 minutes</td>
<td>1 hour 59 minutes</td>
</tr>
<tr>
<td></td>
<td>1 hour 14 minutes</td>
<td>2 hours 2 minutes</td>
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FAB patients had their bloods back 35 minutes faster and there imaging back 48 minutes faster.

Time to Referral

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<tr>
<th></th>
<th>FAB Average 2hr 17 minutes</th>
<th>Non-FAB Average 2hrs 36 minutes</th>
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FAB patients were referred 19 minutes faster than non-FAB patients

Table 1: Table comparing time taken for investigations in FAB and non-FAB patients in the Emergency Department

Summary
Across 8 days, 224 patients in total were included in this audit. We showed the Fast Assessment Bay methodology performed better across all categories allowing more rapid investigations, diagnosis, treatment and referral, figures 2-6.

Recent statistics have shown that fewer patients are seen within the 4 hour target set by the government with net increased in patients seen in ED 4. Using this approach of assessing patients would significantly improve not only targets set by the government but also patient safety as they are assessed much quicker. There is a role for this to be implemented in emergency departments across the UK.

Further further data collection is currently in process and will also look into fatigue and satisfaction into the doctor and nurse practitioner running FAB on the day.

Personal Experience
Whilst working in ED and undertaking this audit it showed me the major stresses and pressure the ED is under day to day. Going through each casualty card the patients, on paper not electronic, has certainly taught me about the importance of documentation and has changed my daily practice, which I believe is for the better. I personally feel the FAB route is significantly better than the traditional route a patient takes in ED, however, due to rota gaps and lack of staff it does add on extra stress and pressures.

References
1. Dorset County Hospital department. Departmental guidelines
2. https://www.rcem.ac.uk/docs/College40Guideline/im_Triage_Apri%202011_published_by_CEM_ENCA_FE_NU20_HLN.pdf
4. Follow-up report February 2011_published_by_CEM_ENCA_FE_NU20_HLN.pdf

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