A study of the use of medical simulation training for junior doctors in UK Neonatal Units

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Introduction
The use of medical simulation training has grown dramatically in the last 10 years but data on its prevalence in training is lacking. Simulation is a farm which refers to an artificial representation of a scenario which achieves educational goals through experiential learning, effectively the ability to make mistakes and learn from them in a safe environment where patients are not harmed.

Many industries such as aviation have been using simulation as part of their training for many years and similar to medicine these professions often have to respond quickly and calmly in high pressure situations. Simulation training has been shown to improve practice (1) and team working (2). Simulation training is recommended by both the Department of Health (3) and the RCPCH (4) as part of junior doctors training. Unfortunately once doctors are in specialty training it is the responsibility of the deanery and individual hospital to ensure this training is provided.

Aims
The objective of this study was to determine whether junior neonatal doctors receive simulation training and to analyse any differences in the geographical location and level of neonatal unit.

Method
158 NICU Registrars in England and Wales completed a phone questionnaire on simulation training. A phone call was made to the neonatal registrar on call and a set of questions were asked, all calls were made by the same researcher at St Thomas Neonatal unit, phone calls were made between January 2013 and August 2013.

Questions were asked about the prevalence of simulation training, types of mannequins involved, what type of simulation programme there was for trainees and if it was it useful. 158 Neonatal units in the country were identified using the BPAM NNU listing (5). The researcher only spoke to the registrar and repeat phone calls were made where necessary until there was data on all 158 neonatal units.

23 of the respondents were locums and, since they are outside the training schemes, these results were disregarded.

Results
135 doctors were asked about the use of simulation training and where the training took place. 31% of respondents did not have any simulation training in their current post (figure 1).

Figure 1
Percentage of respondents who had received simulation training and where

<table>
<thead>
<tr>
<th>Have had advanced simulation training in simulation centre</th>
<th>Have had advanced simulation training in-unit</th>
<th>Have had advanced simulation training in-unit and in simulation centre</th>
<th>Have had no advanced simulation training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>Percentage</td>
<td>Percentage</td>
<td>Percentage</td>
</tr>
<tr>
<td>45</td>
<td>35</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>

Almost 80% of level 3 neonatal junior doctors received some simulation training compared to 58% at level NICU (figure 3).

London had the best rates of simulation training at 90%, those having some training decreased to only 50% of trainees in the South East and South West (figure 4).

Conclusion
Simulation training is known to be hugely beneficial to junior doctors. It is universally recommended yet almost one third of doctors are not receiving any training, with less than half receiving a planned simulation training programme. The rates are highest in level 3 neonatal units, leaving half of those working in level 1 units devoid of training. A postcode lottery is seen with almost all London neonatal units teaching simulation yet only half of those in the south east and south west.

With the stakes being ever higher in paediatrics, a safe environment to learn and make mistakes is essential. The authors feel an organised simulation programme needs to be in place for all junior doctors, as 100% of doctors value simulation training. Whether this responsibility lies at Deanery level or the individual hospital needs further thought.

References
4. RCPCH Simulation & TEL Strategy