In-Situ Simulation: Our Experiences
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Background
The stimulus for the project was to provide education opportunities in the management of airway emergencies, as a result of clinical incidents that had occurred in the ICU. The author along with support from the clinical nurse specialist and an ICU consultant proposed that we develop a multidisciplinary in-situ simulation programme. 1Sprensen et al (2017) review into different forms of simulation training highlights that in-situ simulation advantage over other forms of simulation training is the ability for greater learning at an organisational level, e.g. testing a protocol or ensuring equipment is readily available.

Method
We run a monthly in-situ simulation programme for the multidisciplinary team. The hour session involves a clinical scenario and a debrief session with the whole team using a narrative approach.
The equipment we use:
• Resusci Anne ALS manikin (Laerdal) or actor
• SimMon app on paired iPad and iPhone/iPod (Apple).
• Medical supplies (e.g. out-of-date stock).
Examples of topics covered in scenarios:
• airway emergencies
• cardiac arrest
• total spinal anaesthesia
• major burns injuries
• ICU delirium
We have used in-situ simulation to educate staff as part of wider practice development initiatives, this has included:
• algorithm for tracheal emergencies
• intubation checklists
• CAM ICU scoring and care bundles
• introduction of airway trolley
• use of transfer bags
• familiarise new medical staff with equipment available on ICU

Challenges Encountered
<table>
<thead>
<tr>
<th>Challenge</th>
<th>Solution</th>
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<tbody>
<tr>
<td>Poor attendance of nursing staff</td>
<td>Run during protected training time</td>
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<tr>
<td>Lack of availability of ALS manikin</td>
<td>Resus officers gave us an old manikin they no longer used</td>
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</tbody>
</table>
| Staff not wanting to participate in sessions | • sim is imbedded into training programmes  
                                 | • involve whole MDT and all grades from junior to senior              |
| Lack of available bed space on ICU | Take scenario outside of normal clinical environment  
                                 | – transferring a patient                                               |

Evaluation of Sessions - 2018
1 lowest score (not useful/little) to 5 highest score (very useful/a lot) – mean scores for the year

<table>
<thead>
<tr>
<th>Question</th>
<th>Score</th>
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<tbody>
<tr>
<td>How useful was simulation?</td>
<td>4.9</td>
</tr>
<tr>
<td>How much do you feel you learned today?</td>
<td>4.7</td>
</tr>
<tr>
<td>How would you rate the quality of the simulation?</td>
<td>4.7</td>
</tr>
<tr>
<td>How relevant was the simulation session?</td>
<td>4.9</td>
</tr>
<tr>
<td>How were the simulation facilitators?</td>
<td>4.9</td>
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Conclusion
We have developed an in-situ simulation programme that has become embedded in the educational activity of the ICU and feedback on the sessions are excellent. The clinical scenarios we have developed could be shared with other ICUs when developing their own in-situ simulation programmes.

Reference:
BMC Medical Education 17:10