Simulation Training
Transfusion Associated Circulatory Overload
Josephine McCullagh
Junior Doctor Training at Whipps Cross

- 15 mins induction
- 1 or 2 Face to Face teachings

Something more was needed

Simulation is used widely in major haemorrhage training so why not transfusion reactions?
Why Simulation?

Suggested improvements include increased emphasis on face-to-face teaching and simulation training.

There is clear evidence that simulation provides opportunities to enhance medical skills and experience in a safe learning environment, away from the patient.
Why TACO?

Pulmonary complications of transfusion are dangerous and result in the greatest number of transfusion-related deaths

www.shotuk.org
SimMan is a sophisticated interactive computer controlled simulator.

Control room – where the SimMan is operated

A separate clinical room had a direct video link in real time to the seminar room, so the other members of the group could watch
What’s involved?

• **Clinical case**
  - SHOT
  - local transfusion reactions/incidents

• **Props**
  - Blood Bag
  - Clinical notes
  - Wristband
  - Chest x-ray

• **1hr session**
  - 30 minutes with the SimMan
  - 30 minutes debrief – focus on clinical factors and human factors
Pre and Post Questionnaire

Questionnaire consisted of 15 questions
• 5 x Knowledge
• 5 x Confidence
• 5 x Skill

Responses ranged from:
• Strongly disagree – Strongly agree

• 38 participant responses were received pre-simulation
• 22 participant responses were received post-simulation
Knowledge

- Knowledge pre
- Knowledge post

<table>
<thead>
<tr>
<th>Category</th>
<th>Knowledge pre</th>
<th>Knowledge post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>20.53%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Disagree</td>
<td>30.53%</td>
<td>0.91%</td>
</tr>
<tr>
<td>Neither agree/disagree</td>
<td>27.89%</td>
<td>34.55%</td>
</tr>
<tr>
<td>Agree</td>
<td>20.00%</td>
<td>49.09%</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>1.05%</td>
<td>15.45%</td>
</tr>
</tbody>
</table>
Confidence

Confidence Pre

Confidence Post

- **Strongly disagree**: 10.00%
- **Disagree**: 32.63%
- **Neither agree/disagree**: 34.74%
- **Agree**: 19.47%
- **Strongly agree**: 3.16%

- **Strongly disagree**: 0.00%
- **Disagree**: 50.00%
- **Neither agree/disagree**: 14.55%
- **Agree**: 33.64%
- **Strongly agree**: 1.82%
Future

Develop more scenarios

Laboratory involvement

Simulation Training Day – London TP group
Acknowledgements

Dr Shubha Allard (Clinical Supervisor)

Nidhi Sharma (Colleague and fellow TP)

Sammy Conran (Chair of London TP group)

Gemma Fawkes (Patient Blood Management Practitioner)

Whipps Cross Simulation Team
Thank You