Background Non-invasive ventilation (NIV) is a ventilatory support mechanism used to manage respiratory failure in acute and chronic settings. The roles of members of the multi-disciplinary team (MDT) in managing NIV vary between hospitals. Provision and accessibility to supervision and training is also variable, and there is evidence that medical and nursing staff feel unprepared to deliver NIV in accordance with BTS guidelines. We present results from a pilot course involving off-site multi-professional, multi-modal simulation-based NIV training, designed to directly improve patient safety by improving knowledge, and technical and non-technical skills of staff managing NIV.

Methods An interactive one-day course was developed to provide practical, multi-professional exposure to acute NIV management. This involved introductory lectures followed by low-fidelity simulation and part-task training workshops, prior to three multi-professional high-fidelity simulations (HFS) using HAL S3201 Patient Simulator. HFS scenarios were adapted from the European Respiratory Society (ERS) e-learning simulation programme. Each scenario involved different patient pathology and highlighted one or both of a) initiating NIV or b) recognising and managing NIV failure. Scenario participants acted in their normal professional roles. Simulations lasted 20 min, followed by semi-structured debrief involving participants and observers discussing technical and non-technical aspects of the scenario. A pre-post questionnaire was used to collect feedback on knowledge, skills and confidence in initiating and managing NIV.

Results Of 12 attendees (5 doctors; 3 nurses; 3 physiotherapists; 1 respiratory physiologist), 91% (n=11) managed NIV at least monthly. Pre-post questionnaires demonstrated significant improvement in confidence in initiating NIV (p<0.05), ability to select initial NIV settings (p=0.01) and confidence in recognising patients experiencing NIV failure (p<0.01). There was no significant increase in knowledge of the principles of or indications for NIV which were predominantly presented and discussed in lecture based sessions. 100% (n=12) of attendees found the course either ‘extremely useful’ or ‘useful’, with 83% reporting HFS as either ‘extremely useful’ or ‘useful’. Feedback predominantly highlighted ‘simulation’, ‘scenarios’ and ‘interactivity’ as the best aspects of the course.

Conclusion A combination of high- and low-fidelity simulation is an innovative and effective method of improving confidence and skills of the MDT in initiating and managing NIV. Inter-activity and ability to demonstrate and discuss skills in real-time scenarios is seen as important component of the course by participants. Regular provision of this course will facilitate the development of effective multidisciplinary teamwork in the safe management of patients requiring NIV, and is in line with BTS guidance.

REFERENCE
repeating the post-course questionnaire and scenario several weeks post-induction, to establish whether educational impact is sustained and reinforce learning outcomes. Participant performance (including non-technical skills) could be objectively assessed by the observing faculty, using validated tools.

REFERENCES

P95  CARROTS OR STICKS...FOR IN-SITU, USING SAFETY 2  
R Crisp, B Healy, I Winston. The Royal London Hospital

10.1136/bmjstel-2017-aspihconf.173

Background/Context/Aims Simulation training has typically concentrated on the eradication of error and what goes wrong, as opposed to focusing on successful practice (Hollnagel, 2014). We would like to suggest a novel approach to *in-situ* simulation, where the focus is placed upon identifying strengths, which can then be transferred into effective learning objectives. We found *in-situ* simulation is a useful vehicle for converting latent threats into strengths, so influencing quality improvement. This compliments ASPIH standard 13, where *in-situ* activity is driven authentically by day-to-day activity (Association for Simulated Practice in Healthcare, 2016).

Learning Objectives: * Identify and describe latent strengths and threats. * Understand ‘Safety 2’ by producing learning objectives from identified strengths.

Educational Methods Facilitators will: 1. Show a film of a typical simulation and facilitate a small group discussion centred on the discovery of potential points for debrief. This will be shared in plenary. 2. Through a short narrative, introduce the concept of latent strengths and threats and how these can be used as learning objectives for *in-situ* simulation. 3. Support participants in small groups to create useful learning objectives for scenario development based on latent strengths from their own clinical experiences. This will be shared in plenary.

Target Audience Simulation educators with an interest in *in-situ* simulation, scenario development, latent strengths and threats, and/or quality improvement.

Maximum Number of Participants: 24

Room Layout Open room with enough chairs for all to be seated in four circles of six individuals. Projector and screen positioned at the front of the space, so all can easily view it.

Timetable Introductions/housekeeping 10 mins Film/discussion/plenary 15 mins Narrative 10 mins Group discussion creating learning objectives for scenario development 15 mins Closing questions 10 mins AV P.

Conflicts of Interest The authors declare no conflicts of interest.

Consent All authors consent to this abstract being published in BMJ Simulation and Technology Enhanced Learning.

Reference PC or Windows-based laptop, projector and screen, USB ‘clicker’ to advance slides remotely.

REFERENCES