Simulation Facilitated Training for Junior Doctors Working Within Surgical High Dependency

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FLASH:
Foundation-Level Approach in the Surgical HDU

NHS Fife

Background and Aims

- A survey of trainees within NHS Fife found that foundation and core-level trainee doctors are involved in the care and management of patients in surgical high-dependency units.

- Many revealed their confidence and skills needed to admit, assess and manage post-operative and acutely-unwell patients were inadequate.

- We identified that the combination of multiple patient co-morbidities with an unfamiliarity with specialised monitoring equipment; complex analgesic regimes and paperwork have contributed to these concerns.

Aims

- **FLASH** (Foundation-level Approach within the Surgical HDU) delivers a structured, simulation based course aimed specifically at foundation and core-level doctors.

- Specifically, we aim to create a teaching package which is:

    - Curriculum focused
    - Realistic- by utilising paperwork and communication strategies that are hospital specific.
    - Transferrable to other hospitals

- Whilst developing:
    - Trainees' clinical skills in HDU rapid assessments and execution of action
    - Non-technical skills to facilitate the communication of safe, appropriate management plans

FLASH: Foundation-Level Approach in the Surgical HDU

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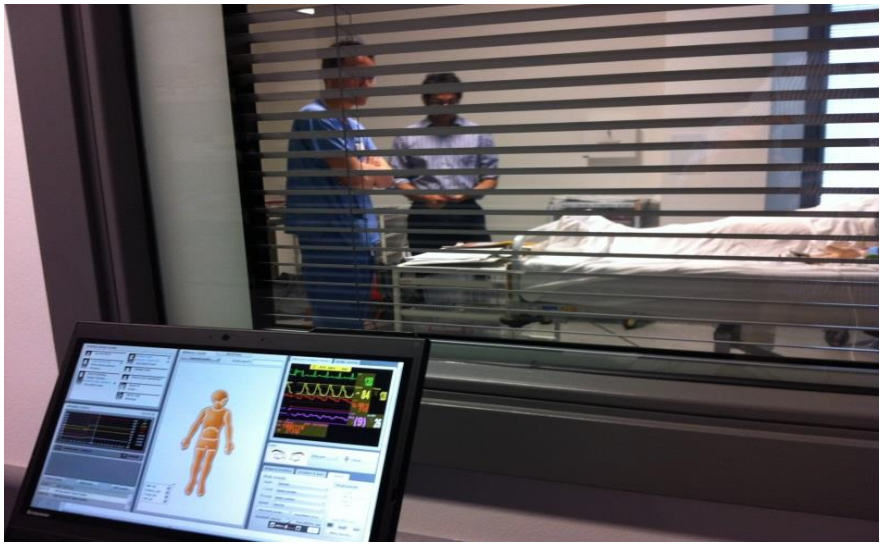
Methods

- A SimMan® Essential patient-simulator is placed within a surgical HDU side-room, connected to standard HDU equipment.



The scenario is monitored and controlled from outside the room.

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Methods

- The course consists of four scenarios that last 15 minutes each, tailored to level of experience:

  - **1) Admission of a post-op patient with an epidural and low blood pressure**
  - **2) Post- Op Hypoxia**
  - **3) Anastomotic Leak and Sepsis**
  - **4) Post-op opiate toxicity and pain management.**

- The scenarios are used to develop an approach to the HDU patient, and focus trainees to:
  - Carry out an initial assessment of post-operative patients (including those with epidurals and invasive monitoring);
  - recognize and instigate treatment for serious post-operative complications;
  - identify when (and from whom) help is required; and develop an effective handover approach

Methods

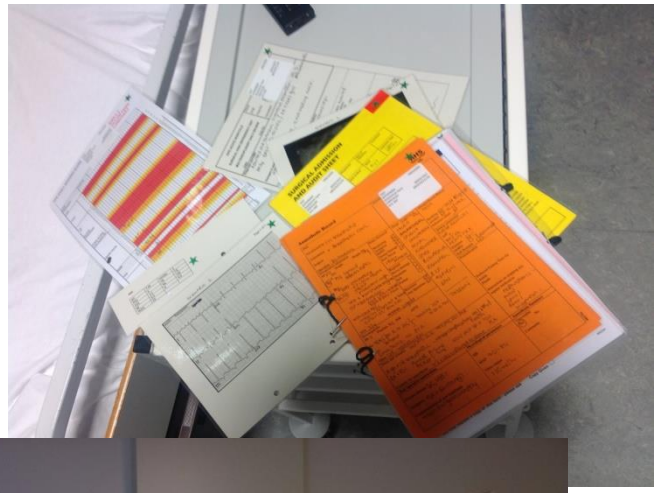
•Each scenario is followed by a structured faculty directed debrief:

–1. Trainees are encouraged to vocalize strengths and problems encountered in their interaction with the simulated patient

–2. New paperwork and equipment is introduced and trainees are shown where to extract important, relevant information

–3. A framework of management is developed with trainees and is tailored to the level of experience of the trainee

–4. Each scenario concludes with a short tutorial covering aspects of physiology, pharmacology or specialized equipment



Feedback

- FLASH has been piloted over three days to 5th year medical students, foundation and core-level surgical trainees in NHS Fife.

- Feedback includes:
  - “It was very useful for FY1s and 5th year medical students in preparation for common scenarios on the wards. The level was about right to challenge senior medical students, without being too difficult. The feedback was excellent and i enjoyed the scientific basis to the discussion”
  - "Relevant clinical scenarios appropriate for foundation level training. Interactive session and hands on practise. “
  - "Hands on experience on real life ward scenarios"
  - "direct feedback immediately following the scenario and teaching on aspects that did not go well during the scenario. the scenarios were made as realistic as possible, including making phone calls to seniors/arrest team."

Next Steps

- FLASH has been launched in February 2014 to foundation and core-level trainees in NHS Fife at the start of their clinical attachment.
- Training future faculty: an comprehensive instruction manual with observational sessions permit new faculty to become trained to deliver FLASH, ensuring sustainability
- The content and number of scenarios will be developed and modified in response to ongoing feedback.
- We hope to extend the existing paperwork to cover other hospitals with a view of offering this course to a wider audience.

- References:
  - **Mcquillen et al**, Confidential inquiry into quality of care before admission to intensive care. BMJ 1998;316:1853
  - **Perkins G, Bion J et al**. Acute Care Undergraduate Teaching (ACUTE) Initiative. A joint publication from the Resuscitation Council (UK) and Intercollegiate Board for Training in Intensive Care Medicine 2005
  - **Tallentire VR, Smith SE et al.** The preparedness of UK graduates in acute care: a systematic literature review. Postgrad Med J 2011 doi:10.1136/postgradmedj-2011-130232