

# Bridging the Gap: Simulating Medical Emergencies for Final Year Dental Students

Fiona Coia and Dr. Adam Burns

fiona.coia@midyorks.nhs.uk | adamburns@doctors.org.uk

The Mid Yorkshire Hospitals   
NHS Trust

  
MEDICAL EDUCATION AND SIMULATION HUB



## Background

Dental practitioners are required to be competent in basic life support and have the requisite knowledge and skills to manage common medical emergencies (GDC 2002) (Balmer and Longman 2012).

In September 2013, 16 dental students attended a DGH to undertake a Human Disease elective. It was not always possible to observe medical emergencies in the week allocated to them. In order to meet the objectives specified by Dental School, the students participated in a series of simulated exercises utilising an ALS and 3G manikins to represent the emergencies they may encounter in practice.

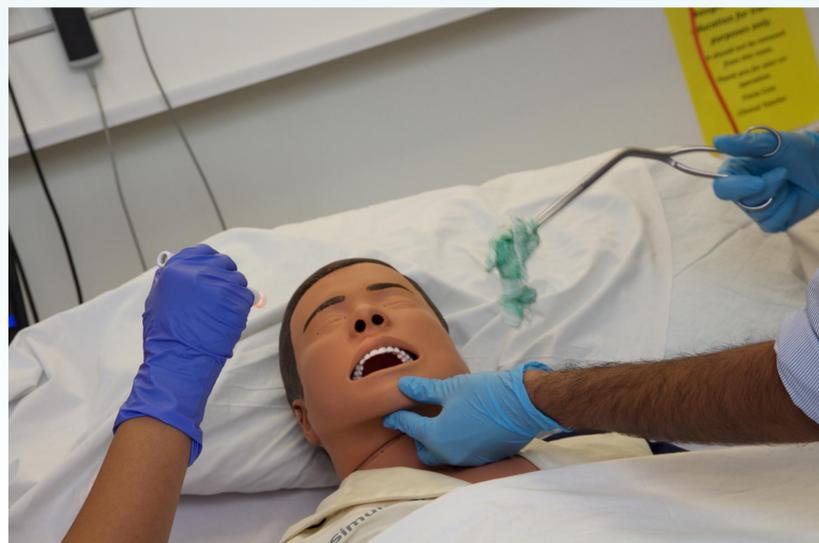
## Methodology

The scenarios were based in a mock dental surgery to simulate the environment in which the dentists would work. The following scenarios were undertaken:

- Retained throat swab/Laryngospasm
- Anaphylaxis
- Communication with a simulated patient
- Cardiac arrest (BLS)

Each student 'led' a scenario supported by peers. A debrief at the end of each scenario allowed for reflection and analysis – placing the scenario in context to dental practice.

A questionnaire allowed for qualitative aspects of feedback and quantitative perception on the effectiveness of the day, as expressed by a 5-point Likert scale.



## Outcomes

- 16 students participated in the evaluation.
- 100% felt that the study day had relevance to their work/training and gave them a better understanding of how to deal with medical emergencies.

The simulated medical emergency training was highly rated as an overall learning experience allowing students to gain an understanding with how to deal with common medical emergencies in a supportive environment conducive to building on prior knowledge. Davies et al 2009.

## Feedback

- Both ad-hoc and post-hoc feedback was used during the scenarios with the clinical condition of the patient being altered to reinforce learning points in addition to retrospective tutor feedback.
- Feedback categories were split into three areas including medical decision making, technical skills and human factors.

## Recommendations

- All dental students should receive training in common medical emergencies.
- Simulation training is the preferred methodology for this training as it can be used to develop multiple skill areas simultaneously.

- Emergency medical scenarios should be based in common dental situations to enhance dental students risk perception and emergency management skills when working in a non-hospital environment.

## References

- Balmer M.C and Longman L.P (2012) The management of medical emergencies. The role of the Dental Care Professional. Oxford Wiley-Blackwell.
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