



# West Midlands Education Innovation and Notable Practice

**DEVELOPMENT OF A PAEDIATRIC SURGICAL VIRTUAL LEARNING  
CASE STUDY**

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## DEVELOPMENT OF A PAEDIATRIC SURGICAL VIRTUAL LEARNING CASE STUDY

*BIRMINGHAM CITY UNIVERSITY*

**Overview:** This paediatric surgical virtual case has been developed to run alongside an acute paediatric medical virtual learning case study. Both virtual learning case studies are delivered during an acute hospitalisation module for second year child branch nursing students. The paediatric surgical virtual learning case study complements and supports a lead lecture on the assessment and management of acute surgery and a paediatric surgical simulation session which focuses on transferable surgical knowledge/skills and overall the promotion of surgical safety aspects.

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There are many times in acute paediatrics that requires children's nurses to assess, manage, prepare and evaluate children who require a variety of surgical procedures. This surgical virtual case provides the opportunity for student nurses to interact with a child, Semina Akhtar, an 8 year old little girl admitted with acute appendicitis in a safe environment which can either be in the academic or home setting.

This approach has the value of providing opportunities for the students to engage with this teaching and learning tool as little or as often as they wish. The overarching aim of this interactive learning environment is to guide students through the key safety aspects of surgical assessment. The case study has visual hotspots which direct students to additional learning resources for example the "nil by mouth" sign offers further reading on evidence based fasting times (RCN 2005), and the intravenous fluids offers further reading linked to the National Patient Safety Agency 2007 publication on hospital acquired hyponatraemia.



There is an interactive drop down menu of potential assessment opportunities which hones the students ability to make decisions concerning the appropriateness of the assessment linked to this particular surgical scenario.

There is an opportunity for the students to undertake a quiz as part of this virtual learning tool, this quiz can be taken at any point during the students learning engagement and it can be repeated as often as the student wishes.

This new paediatric virtual surgical case has so far only been piloted with one cohort of children's nursing students. Feedback to date from those students has confirmed that the virtual case;

- is easy to follow
- has helped to relate new knowledge to existing knowledge
- has prepared them for practice
- should be developed and used within the module

The future plans therefore for this paediatric virtual case study is to embed it into the recently approved BSc (Hons) Nursing curriculum during the students second year of study and potentially include a post operative follow up case study.

From beginning to end the development of this paediatric virtual learning case study has taken approximately 18 months. The most difficult aspect was the completion of a virtual ward template deciding what text to include, what resources to include, how many drop down assessment options to include, which hotspots to have and completion of the drawings/graphics to promote realism.

As a paediatric medical virtual case was already in use it was important not to replicate too much of what was already available for the students. Perseverance and commitment to the development of this case study has paid off and it can now be fully utilised and developed for further cohorts of children's nursing students.

#### References:

National Patient Safety Agency (2007) Patient safety alert. Reducing the risk of hyponatraemia when administering intravenous infusions in children. NPSA, London

Royal College of Nursing (2005) Perioperative fasting in adults and children. RCN, London