

Development of an online learning resource in Advanced Life Support

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Problem to solve

- Issues
 - Large student cohort – 506
 - Restricted clinical placement
 - Decreased weeks on campus
- Semester inviting change
 - 8 weeks on campus
 - Delivery of ALS via online only format

Desired outcomes of online program

- Flexible approach to learning¹
- Robust education program – pedagogy^{1,2}
- Accommodate different learning styles^{1,3}
- Interactive^{4,5}
- Different approach for generation Y audience⁶
- Fixed resource

Approach

- Blackboard interface^{2,7}
- Develop lesson plan⁸
 - Content
 - Learning strategies
- Learning designer for knowledge of online development^{5,9}

Lecture lesson plan

Content5,10,11

- Sequential learning
- Refresh BLS
- Airway & breathing
- Cardiac monitoring
- Defibrillation
- Drugs
- Putting it all to

Strategies1,3,12

- Pictures
- Flow charts
- Readings
- Audio linked to PowerPoint
- Videos
- Websites



Now where to!



Online learning design

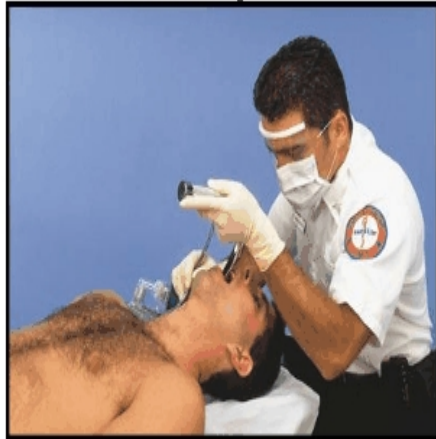
- One part-time learning designer for Faculty of Health
- Changing roles
- Instructions on navigation
- Create sections
 - Time & space aspects
 - Language
 - Control

Online learning design

- Hyperlink
 - Web sites, articles, videos, audio + PowerPoint
 - Open in new window
- Tweak
- Test creation
- Discussion forum?
- Time considerations

Airway Management ▾

Enabled: Statistics Tracking



This section introduces you to the major concepts of airway management in basic and advanced life support. Aspects covered include the basic techniques of head tilt, chin lift and jaw thrust. This is followed by adjuncts such as oropharyngeal and nasopharyngeal airways, basic ventilatory support and advanced airway control with the laryngeal mask airway and endotracheal intubation.

Presentation on Airway Management

The audio and PowerPoint (14 minutes) incorporate the above aspects of both basic and advanced life support [airway management](#).

Readings airway and mask ventilation

This link will take you to the CMD to access two readings. The first is from the text by **Pierce** (4 pages) covering management of [oropharyngeal and nasopharyngeal airways](#) and mouth to mask ventilation using a one-way valve mask. The second reading is the article by **Rushing** (1 page) titled "[Using bag-valve-mask ventilation](#)". In the reading by Rushing, ignore providing ventilation every 5 seconds and follow ARC guidelines. A good knowledge of airway management is essential.

Insertion of artificial airways

This video (6 minutes) demonstrates the basic techniques of head tilt, chin lift and jaw thrust followed by insertion of oropharyngeal, nasopharyngeal and laryngeal mask [airways](#). Though it is in a preoperative context, insertion of these devices in ALS is unchanged.

Reading endotracheal intubation

This link will take you to the Online reading by Augustyn, Johnson & Hardin-Pierce in the text, High Acuity Nursing. Access **Part 3, Module 11, Section 2** for information on equipment required for mechanical ventilation and initial equipment required for establishing a patent airway. This will provide you with knowledge of the equipment required for [endotracheal intubation](#).

Video Endotracheal intubation

This short video (48 seconds) demonstrates the technique for insertion of an endotracheal tube. Consider if you were the nurse assisting the intubation. From the presentation and reading above you will have identified the equipment required. Though the assistant is not on screen, you can generally see them passing the required equipment. Consider how you would assist the medical officer with [endotracheal intubation](#).

Reading Cricoid Pressure

When you access this reading via the link below to the ARC website, you will need to click on the ARC Guidelines in the centre of the page and then Guideline 11.4 Cricoid Pressure. [Cricoid pressure](#) is pressure applied with the thumb and index finger over the anterolateral aspect of the cricoid cartilage. This occludes the oesophagus while still allowing patency of the trachea. By occluding the oesophagus, regurgitation of stomach contents into the trachea is prevented.

Evaluation

- Lecture & tutorial
- Completion:
 - All/most/some/none
- 4 point Likert item questionnaire
 - Strongly disagree/disagree/agree/strongly agree
- Open response section

Evaluation

Lecture

- Response rate 34%
- 26% of responders did not attempt any of the online lecture
- Agreement with most, disagreement with preference for online over face to face

Evaluation – qualitative

- Interactive features great – more please
- Forced me to search and engage in the learning material
- Well set out & easy to follow
- International – prefer online, time to work through
- Significant numbers
 - It was fine but I prefer face-to-face
- Occasional failure of dynamic aspects
- Too much reading
- Everything all over the place – “jumped about”

Lessons learned

- Fixed resource
- Able to be updated
- Access to technical expertise essential
- Resource implications
- Blended approach

References

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