

THE CHINESE UNIVERSITY OF HONG KONG

Micro-Module Courseware Development Grant

Interim Report (March 2015)

PART I

Project title: Cardiopulmonary Resuscitation
Principal supervisor: Dr. Wai-Tat WONG
Department / Unit: Anaesthesia and Intensive Care
Project duration: From January 2015 to August 2015
Grant Amount: HK\$96437.5
Date report submitted: 31 March 2015

1. Project objectives

Our goal in developing these micro-modules is to maximize students' preparedness and competency so that face to face teaching can focus on aspects of learning that require physical practice or integration of all skills. The project is on track to meet our goal.

2. Progress on process, outcomes or deliverables

The first 3 micro-modules, i.e. defibrillation, chest compression and airway management, have been accomplished. Animation demonstrating technical mistake in defibrillation was found to be too obvious to be used to test students' understanding. Short videos showing mistakes by candidates were taken during one of the post graduate resuscitation training course. Web based assessment with short videos was used for formative assessment of defibrillation skills instead of animation based interactive tutorial. The remaining 2 micro-modules are coordination and team work in resuscitation. The project so far is on time for completion

3. Evaluation Plan

There is so far no evaluation of the micro-modules performed. The evaluation plan will be the same as in the proposal. Specific individual skills in resuscitation such as frequency and depth of chest compression during resuscitation will be compared before and after implementation of the micro-modules.

4. Dissemination (reports, websites, video links, products, etc.)

Website: <http://web8.aic.cuhk.edu.hk/moodle/course/view.php?id=82>

Defibrillation (Video demonstration and video based assessment)

Demonstration

- Defibrillation in ongoing CPR
- Change on the machine and safe position of paddle
- Use the self-adhesive defibrillation pads
- Check the rhythm and charge on the paddle

Assessment

- Apply paddles firmly over gel pads
- Warn other rescuers to stand clear
- Visually check that all other rescuers are clear
- Remove any oxygen delivery devices and place them more than 1m from patient's chest

Chest compression (Animation and smartphone application)

Adequate depth, frequency and recoil.

Minimize interruption, minimize drop in perfusion pressure

Airway management (Animation)

- Check breathing
- Achieving and maintaining an unobstructed airway
- Position the mask and maintaining a seal
- Maintaining the airway and providing ventilation
 - One person technique
 - Two person technique
 - Oropharyngeal airway