ACCA
Acute Cardiovascular Care Association

2nd ACCA School

Hands-on Critical Cardiovascular Care Course

Course directors: Prof Héctor Bueno, FESC
Dr Roberto Martin-Asenjo
Dr Konstantin Krychtiuk

Venue: Hospital Universitario 12 de Octubre
Avda Andalucía s/n
Madrid. Spain

Date: 18 & 19 October 2018
20 October 2018 ACCA Certification exam (optional for ACCA School delegates)

Language: English

TIME TABLE

6 groups of 10 pax running 6 times

Real Madrid	FC Barcelone	Atletico Madrid	Séville FC	Athletic Bilbao	Osasuna

DATE	HOUR	GROUPS					
		1- Real Madrid CF	2 - FC Barcelona	3 - Atlético Madrid	4 - Sevilla FC	5 - Athletic Bilbao	6 – Osasuna
18/10	12:00	Welcome LUNCH					
	13:00 – 15:00	**ACCA Welcome (30min)** Plenary: Challenging ECGs (60 min)					
	15:00 – 17:00	Renal replacement therapy	Difficult airway management	ECMO	Vascular access	Critical Cases Simuation	Mechanical Ventilation
	17:30 – 19: 30	Difficult airway management	Renal replacement therapy	Vascular access	ECMO	Mechanical Ventilation	Critical Cases Simuation
19/10	9:00 – 11: 00	Critical Cases Simuation	Mechanical Ventilation	Renal replacement therapy	Difficult airway managem ent	ECMO	Vascular access
	11:30 – 13:30	Mechanical Ventilation	Critical Cases Simuation	Difficult airway management	Renal replaceme nt therapy	Vascular access	ECMO
	13:30 – 14:30	LUNCH					
	14:30 – 16:30	ECMO	Vascular access	Critical Cases Simuation	Mechanical Ventilation	Renal replacement therapy	Difficult airway management
	17:00 – 19:00	Vascular access	ECMO	Mechanical Ventilation shooting	Critical Cases Simuation	Difficult airway management	Renal replacement therapy
20/10	8:30 - 9:00	**Exam: Tips and tricks – Auditorium**					
	09:30 – 12:30	**ACCA CERTIFICATION EXAM**					

Challenging ECG – "ECG Stays alive"

Faculty: Dr Fernando Arribas (TBC)

Educational Objectives Devoted to key messages on the value of the ECG in clinical practice in the acute cardiac care setting.

Learning format : 60 min in a plenary session

Echo-guided Vascular Access

Faculty: Victoria Ramos Casado (Course Director); Dr Ana Llorente de la Fuente & Dr Luisa Barón González de Suso

Educational Objectives

- Understand the principles of echo-guided vascular access
- Interpret short- and long-axis vascular visualization
- Learn how to differentiate arteries and veins
- Learn the required equipment and the preparation of the technique
- Learn echo-guided cannulation of:
    - internal jugular vein
    - femoral vein
    - peripheral vein and peripherally inserted central venous catheter
    - arterial access

Learning format

The course will consist of a short theoretical section on the general principles and techniques of echo-guided vascular access and a practical section.

Renal Replacement Therapy

Faculty: Jose Angel Sanchez Izquierdo (Course Director); Javier Maynar Moliner & Manuel E Herrera

Educational Objectives

To learn the indications of extrarenal depuration, as well as the different modalities and functions of a haemofilter, which parameters are important and which alarms should make us stop the therapy as well as solving common problems that can appear when using a haemofilter (i.e. hypotension or bleeding).

Learning format

1) Connection, Monitoring and Detection of Problems: participants will review the different monitoring systems for pressures, flows, volumes and alarms in several modes of treatment
2) Transmembrane Pressure, filtration fraction (FF) and creatinine clearance: these concepts will be developed applying their formulas in practical cases.
3) Evaluation of extrarenal depuration with different clinical cases.

ECMO

Faculty: Dr Simon Davies (interventional cardiology lead ECMO, Royal Brompton Hospital)

Educational Objectives:

The course aims to provide a comprehensive understanding of ECMO. A multidisciplinary faculty will provide a systematic approach to the basic principles (what), indications (why, when, who) and management (how) for adult ECMO support. The focus will be on the evaluation of the physiological principles behind ECMO support and the importance of tailoring the support method to the evolving patient clinical scenario.

The following topics will be addressed:

- Revision of indications for mechanical circulatory support
- Safe cannulation and cannulation techniques
- Integration of fluoroscopy, trans-esophageal echocardiography and vascular ultrasound at the bedside
- Discussion of alternative mechanical circulatory support systems for various clinical situations

- Concomitant coronary, pericardial and valve interventions

Learning format:

The course uses a variation of presentation, practical and simulation sessions taught by an expert multidisciplinary critical care team.

Critical Case Simulation

Faculty: Konstantin Krychtiuk (Course Director)

Educational Objectives

Review of the most important clinical scenarios one is confronted with when working in acute cardiac care, such as acute chest pain (AMI, dissection, pulmonary embolism), rhythm disorders (ventricular, supraventricular), AHF & shock, sepsis, pericardial tamponade, CPR and common breathing disorders. Participants should be able to assess clinical symptoms, perform diagnostic procedures (auscultation, ..) and order diagnostic tests (xray, echo, blood tests, angiography,…) and treat the patient both pharmacologically and invasively.

Learning format

Participants will further divide into groups of two and being confronted with various clinical scenarios on the Body Interact System.
Participants are expected to work their way through the case in an interactive manner ranging from history taking, performing diagnostics, ordering tests to deciding on the right treatment form for each individual patient.
They will receive live feedback from the patient in terms of vital signs and possibility of stabilization as well as a comprehensive feedback from the Body Interact System after each case.

Difficult airway management

Faculty: Oscar Valencia (Course Director); Dr. David Benguria & Dr. Javier Silva

Educational Objectives:

Evaluation of the airway. Predicting difficulty:

- Difficult facial mask ventilation
- Difficult laryngoscopy
- Difficult use of supraglottic airway devices
- Difficult surgical access (tracheostomy vs cricothirotomy)

Pharmacology of the airway:

- Pretreatment agents: lidocaine, fentanyl, others
- Sedative/induction agents
- Neuromuscular blocking agents: depolarizing vs non depolarizing agents

Algorithms:

- Predicted difficult airway
- Unpredicted difficult airway
- Crash airway
- Failed airway

Facial mask ventilation: one person, two person, three persons

Conventional laryngoscopy: Macintosh vs Miller

Laryngoscopy aids: intubation guides: Frova

Videolaryngoscopes: C-Mac, King Vision, Airtraq, Macgrath (Chanel vs unchanel blades)

Supraglottic airway devides: First generation, second generation, ILMAs

Blind intubation: Fastrack

Fiberoptic guided intubation: AuraGain, I-gel

Basic use of FBO: Bronchial aspiration, nasal and oral intubation, PTC control, intubation through supraglottic airway devices

Front of the neck access: surgical cricothirotomy vs percutaneous cricothirotomy timing

Learning format:

Theorical part at the beginning of every station, practical part on facial mask ventilation, conventional laryngoscopy with intubation guides, videolaryngoscopes, supraglottic airway devices and surgical airway

Mechanical Ventilation

Faculty: Josep Masip

Educational Objectives:

The objective of this course is to give a comprehensive overview and update on invasive mechanical ventilation. A multidisciplinary team will cover the most important aspects of state-of-the art mechanical ventilation

- Respiratory physiology and pathophysiology
- Modes of mechanical ventilation
- Common problems
- Hands-on-training
    - How to deal with alarms
    - Interpretation and reaction to blood-gas-analysis
    - Weaning

Learning format:

Theoretical part on respiratory physiology and modes of mechanical ventilation followed by practical hands on training using state of the art ventilators and simulators. Participants will be challenged with various clinical scenarios and requested to react in real-time.