Anaesthesia Training and Undergraduate Education in Hong Kong

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Prince of Wales Hospital
Health Care System in Hong Kong:

- 1840’s British Colony

- 1997 Hand-back China
  - Special Administrative Region
  - Internal affairs – Independent (Legislative Council)
  - Foreign policy – Beijing

- 1991 – I started work at CUHK (25y ago)
Medical Schools in Hong Kong:

- 1890s - Hong Kong University

- 1981 – Chinese University of Hong Kong – (University established in 1963)
Health Authority (HK):

• Before 1990 – Government run hospitals
  – Staffed by specialist from Britain
  – Local staff grade doctors

• After 1990 – Health Authority formed
  – 42 Public Hospitals
  – Multiple clinics
Hong Kong Public Hospitals and Clusters

Chinese University & Prince of Wales Hospital

Hong Kong University & Queen Mary Hospital
Professional regulatory bodies in Hong Kong:

- Previously most specialists belonged to overseas colleges in either Britain, North America or Australia.

- 1993 – Academy of Medicine
  - HK Jockey Club Building

- Colleges established
  - Over 50 today

- Hong Kong College of Anaesthesiologists:
  - Coordinate training, etc.
Private practice in Hong Kong:

- 11 accredited Private Hospitals
- Plus many private clinics
- <50% doctor work in private
- Medical tourism for SE Asia & China
Situation in Hong Kong today:

• One of the best public health care systems in Western World

• 17% of Government expenditure

• Flourishing private system
ANAESTHESIA TRAINING IN HONG KONG:
Training:

Previously:
Linked to the Australia & New Zealand College
Influence of Professor Teik Oh
Dual Fellowship as also Fellowship of the HK College of Anae.

Last few year become delinked:
FKHAM now recognized by UK and ANZCA
Training a copy of FANZCA
Separate Intensive Care and Pain fellowships
Training in Anaesthesia:

• Hold an accredited training position

• NTEC – 5 new trainees per year
  – Anaesthesia & Intensive Care

• PWH and NTEC have 30-40 trainees in workforce
Six year training programme in anaesthesiology:

Professional examinations
- Intermediate Fellowship
  - after 2y / Basic sciences
- Final Fellowship
  - after 4-5y training
- Accreditation
  - completed 5y of training
- Post fellowship year
  - optional training
Six year training programme in anaesthesiology:

- 6y / 72m of clinical attachments
- Log book of cases
- Formal Project
- Post fellowship year*
- EMAC course
  - (Effective Management of Anaesthesia Crisis)

<table>
<thead>
<tr>
<th>Duration</th>
<th>Experience</th>
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<tbody>
<tr>
<td>3m</td>
<td>Non-anaesthesia clinical experience</td>
</tr>
<tr>
<td>48m</td>
<td>Clinical Anaesthesia</td>
</tr>
<tr>
<td>6m</td>
<td>Intensive Care</td>
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<tr>
<td>15m</td>
<td>Elective options*</td>
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Log book cases:

The Clinical Anaesthesia experience [referred to under section 1.6.2 and 1.6.4] must include an adequate exposure to all of the following CORE areas in anaesthesia. To ensure adequate exposure, a trainee is expected to have managed a minimum number of cases in each core subspecialty¹ (as defined in the brackets) over the 6 years of training.

1.8.1 anaesthesia for general surgery / urology / gynaecology (500 cases)
1.8.2 anaesthesia for orthopaedics and traumatology (500 cases)
1.8.3 obstetric anaesthesia (100 cases) and obstetric regional analgesia (50 cases)
1.8.4 neuroanaesthesia (100 cases)
1.8.5 thoracic anaesthesia (50 cases)
1.8.6 paediatric anaesthesia (100 cases of children ≤ 6 years, including neonates)
1.8.7 anaesthesia for Head & Neck / ENT/ Oro-facio-maxillary (100 cases)
1.8.8 emergency / trauma anaesthesia (500 cases)
1.8.9 acute pain management (300 patient-days)
Employment in Hong Kong:

- Sufficient jobs in HA for all exiting trainees
  - Continuing expansion of the HA hospital
  - Movement of HA anaesthetists from public to private
- 500 Anaesthesiology Fellows
Working as a doctor in Hong Kong:

- Issue of Mainland trained doctors
  - flooding Hong Kong workforce
- Registered with the Hong Kong Medical Council
  - Licensing Exam with 5-10% pass rate
  - Complete one year as house officer
- Clause for University employed clinical staff

- I am registered with the HKMC
  - As I came to HK before 1997
  - (UK qualified)
### Table 1
Outline of anaesthesia course content

<table>
<thead>
<tr>
<th>Clinical sessions</th>
<th>Tutorials</th>
<th>Workshops</th>
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</thead>
<tbody>
<tr>
<td>Elective surgery</td>
<td>Preoperative assessment</td>
<td>Airway management</td>
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<tr>
<td>Emergency theatre</td>
<td>Obstetric anaesthesia</td>
<td>Intravenous skills</td>
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<tr>
<td>Acute pain rounds</td>
<td>Intravenous fluid therapy</td>
<td>Head injury simulator session</td>
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<td>Obstetric unit</td>
<td>Blood products and transfusion</td>
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<td>Oxygen therapy</td>
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<td>Arterial blood gas analysis</td>
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<td>Staff safety issues</td>
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<td></td>
<td>Local anaesthetics and toxicity</td>
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<td>Safe patient sedation</td>
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</tbody>
</table>

*Anaesthesia and Intensive Care, Vol. 37, No. 4, July 2009*
Undergraduate Anaesthesia:

• Since 2005 – Head of U/G Anaesthesia teaching
• 140 medical students /year
  – (but increasing to 230)
  – Similar at sister university [Hong Kong University]

• Now 6 year course:
  – First year is basic 6\textsuperscript{th} form sciences
  – Biology, Chemistry & Physics

• Does NOT include residency years
Undergraduate Anaesthesia:

• Anaesthesia taught as a 2-week module
  – 7-12 students in Final year.
  – Clinical attachments, tutorials and E-learning materials*
The Teaching & Learning Resources Centre at the Chinese University
Introduction of e-learning

- TLRC facilitated e-learning on anaesthesia course
- Difficulties teaching preoperative assessment
- In 2006 we wrote 6 interactive case studies, or FACS
- They are still in use today
Anaesthesia teaching initiatives supported by the TLRC at CU

MCQ Database & Virtual patient

Interactive case studies
Publications on Medical Education by Anaesthesia at CU


Very BASIC
Acute Medicine Course

**Design**
2-week module
Final Year Medical Students
Involves 170 students [All Year-5]

**Teaching Materials**
Book - *Course Manual*
e-lectures – *20 to 30 min narrated slides with videos*
Case Discussions – *Tutorials*
Skill stations
15 stations (groups of 6-students)
e-learning resources – MCQs, Quizzes
*i.e. interactive radiology & arrhythmias*
Curriculum - Essential Topics

- Assessment - critically ill
- Airway management & Obstruction
- Circulatory shock
- Basic haemodynamic monitoring
- Acute trauma
- Anaphylaxis
- Cardio-pulmonary Resuscitation
E-learning materials

• E-lectures
  – Narrative with Videos
• Formative Quizzes, MCQs
• Mobile Application (Mac/Android)
• FAQ - Frequently Asked Questions Forum
• Track student usage
  – used for assessment
• Platform – Moodle
Practical skill stations

- Basic CPR skills
- Defibrillation test
- Airway skills
- Arterial blood sampling
- Blood cultures & Hand cleansing
Interactive Tutorials

SBAR – *Situation, background, assessment, recommendation*

A. Video of communication: doctor speaking to patient’s family
B. Case scenario – expected to call for help
C. Video of Crisis Resource Management
Thank you!