The Development of the National Simulation Training Programme in Anaesthesia

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Director of Simulation for Training
College of Anaesthetists in Ireland
Outline

➔ Simulation strategy & logistics

➔ CAST - From vision to action

➔ Take home message
Simulation Strategy & Logistics
Simulation - logistics

- **Strategy**
  - Mission Statement
  - Business plan
  - Centre design
  - Equipment

- **Institutional Buy-in**
  - Politics
  - Networking
  - Strategic frameworks

- **Funding**
  - Budget
  - Sources of revenue
  - Marketing

- **Operational Manpower**
  - Medical Director
  - Admin Manager
  - Admin Assistant
  - Simulation Specialists

- **Curriculum & Courses**
  - Curriculum planning
  - Case library
  - Educators
  - Training the Trainer

- **Quality Assurance**
  - Audit
  - Research
  - Collaboration
Business plan

- Objectives & training rationale
- Target markets (users, motivation, financial status)
- Competition & feasibility study
- Strengths & weaknesses
- Resources & costing
- Marketing mechanisms
- Timescale
Mission Statement

Our philosophy is to provide systematic training to trainees and continuing medical education and development to practitioners in anaesthesia through experiential learning and directed self-reflection in a clinical skills and simulation environment.
Scope and Objectives

- Education
- Assessment
- Research
Education

Systematic approach to the management of medical emergencies
  ➫ essential knowledge
  ➫ technical skills
  ➫ strategies for problem avoidance and problem solving
  ➫ principles of crisis management

Applying principles of adult learning
Assessment

- Formative vs. summative assessment
- Problems with reliability and validity
- Resources
- TTE = Train the Examiners
- Limited international experience of using simulation for assessment
- Simulation for accreditation: Israel, ABA US
- CAI – simulation at the Primary OSCE & SDR
Research

The impact of simulation on

**Training Outcomes**

Technical skills

Non-technical skills

Easy in the Simulation Lab

**Patient Outcomes**

Difficult to show translation in practice

Design and ethical issues
Target Audience

Trainees in Anaesthesia
Practitioners in Anaesthesia
Other healthcare professionals
Acute care specialties
Institutional buy-in

**Strategic Framework**

National Curriculum and Guidelines: HSE-METR; CAI

International Recommendations


**Evidence**

Koetsier E, et al.: Complaints and incidents related to anaesthesia services are foremost attributed to non-technical skills. EJA 2011; 28: 29-33

**Politics**

**Networking & opportunities for funding**
Domain 1.8: Anaesthesia Non-Technical Skills (ANTS)

During the course of their training, residents must acquire non-technical abilities to master interpersonal and organizational tasks during the perioperative care of patients. These include the following competences:

   a. Develops and maintains an overall dynamic awareness of the situation based on perceiving the elements of the operating room environment (patient, team, time, monitoring and equipment) and understands what they mean and anticipates what could happen in the near future.

   b. Makes decisions to reach a judgment or diagnosis about a situation, or to select a course of action, based on experience or new information under both normal conditions and in time-pressured crisis situations.

   c. Manages resources and organizes tasks to achieve goals, be they individual case plans or longer term scheduling issues.

   d. Communicates effectively and works with others in a team context, in any role, to ensure effective joint task completion and team satisfaction.
Centre Design & Equipment

- Understand the educational needs before you built or buy
- Technical vs. non-technical skills vs. both
- Individual vs. team training
- Single specialty vs. multiple specialties
- Single discipline vs. multiple disciplines
Simulation Centre Design

- **Building and space planning**
- **Room usage**
  - Mock OT/ITU/Ward
  - Control room
  - Debriefing room(s)
  - Other: communication rooms, lecture theatre, E-learning stations, external training area, breakout spaces

- **Audio-visual system**
- **Others: acoustic, lighting, air-handling, security**
Equipment

- Part-task trainers
- Medium & high fidelity mannequin patient simulators
- Computer-based simulators
- Equipment for added realism
- Equipment for specialized courses
Centre Operation & Administration

- Calendar & booking system
- Course material update/props
- Simulator maintenance
- Manuals
- Data organization
- Policies
- Marketing/Website
- Insurance
- Real-life emergencies
College of Anaesthetists Simulation Training

CAST- From vision to action
Strategic framework


- HSE & HEA - 6.5 mil capital investment

- HSE-METR set-up

- Two pilot Multidisciplinary Regional Clinical Skills Centres

- COAI Education Centre & Simulation Laboratory

- Other existing facilities
Other driving forces

- COA updating the existing competence-based curriculum
- Change in trainees working hours
- EWTD
- Economic condense
- Decreased number of training posts
- Change in allocation of funding for training
CAST Programme

College of Anaesthetists Simulation Training

OR

Collaborative Anaesthesia Simulation Training

Several participating institutions:

- Education Centre – COAI Dublin
- ASSET Centre UCC Cork
- Regional Clinical Skills Centre SJH Dublin
- RCSI Clinical Skills Laboratory Beaumont Hospital Dublin
- Department of Anaesthesia UH Galway
CAST - Principles

- Careful mapping to the current competence-based training curriculum in anaesthesia
- National coverage
- Uniform educational content
- Homogenous training of educators
- Continuous quality management programmes
### CAST - Terms of Reference

<table>
<thead>
<tr>
<th>COAI</th>
<th>RCSSC</th>
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<tbody>
<tr>
<td>🔷 Simulation curriculum</td>
<td>🔷 Delivery of COAI-approved core courses</td>
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<tr>
<td>🔷 COAI – approved courses</td>
<td>🔷 Local faculty recruitment and accreditation</td>
</tr>
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<td>🔷 Guidelines, forms, templates</td>
<td>🔷 Audit and research</td>
</tr>
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<td>🔷 Inspection, evaluation and accreditation</td>
<td>🔷 Revenue reinvested in simulation equipment</td>
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<td>🔷 Centralized training for trainers</td>
<td>🔷 Local management, administrative and technical operations</td>
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<tr>
<td>🔷 CME for participants and faculty</td>
<td>🔷 Collaboration with Medical Council/other Training Bodies</td>
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<tr>
<td>🔷 Collaboration with ASPiH &amp; SESAM</td>
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- Centralized training for trainers
- Collaboration with Medical Council/other Training Bodies
- Collaboration with ASPiH & SESAM
College of Anaesthetists Simulation Training
From vision to action

- Search for expertise
- Search for models
- Development of curriculum & course material
- Faculty recruitment and training
- Piloting
- Marketing
- Networking & communication strategy
- Construction & refurbishing work
- Technical training
- Targeted Procurement Strategy
Expertise & Models

15th Annual Meeting of SESAM June 11 – June 13 2009
IN MAINZ, GERMANY, KUPFERBERG CONGRESS CENTRE
EUROPE – TRADITION AND INNOVATION IN SIMULATION

Themed Session 7: Simulation: From nice-to-have to professional tool
Bismarck Main Conference Room
Friday, June 12: 09:00 – 10:00

Chairperson
Martin Grapengeter, Groningen

Abstract # 70
Martin Grapengeter
Dutch Curriculum

Abstract # 6
Kajan Konchakan

Abstract # 5
Margarita Galovia
United Kingdom Foundation Doctors Clinical Scenario Workshop

Abstract # 4
Tom Gale
Learning from Styles of Facilitation

Abstract # 78
Joost Regtien
Three years of simulation for selection to anesthesia training posts

ANZCA
AUSTRALIAN AND NEW ZEALAND COLLEGE OF ANAESTHETISTS

STeLI
Simulation Technology-enhanced Learning Initiative

Barts and The London NHS Trust

EXPERTISE & MODELS
Curriculum & course material development

- Careful dissection of the existing competence-based training curriculum
- Identification of areas amenable for simulation training
- Fusion in several core courses
- Clear learning objectives
- Course material (scenarios, script)
- Peer review
- Approval sought from CAST Committee
- Input from specialists for OA/PA/ITU etc. courses
CAST - governance and quality assurance

 때문이다 governance

CAI provides governance

- Gives legitimacy and encourage participation
- Consistency of training
- Maintains standards
- Regular review of programme
- Accreditation of RCSSC

CAI provides continuous evaluation

- Participant evaluations = quality improvement tool
- Regular audit

CAI is training the trainers

- Generates pool of teachers/facilitators
- Maintain teaching standards
- Certifies trainers after training
CAST - Accreditation

- Initial centre visitation and evaluation
- Initial pooling of resources
- Quantitative and qualitative guidelines for Simulation Centres
- Planned accreditation process
  - Application for accreditation
  - Inspection and accreditation
  - Re-accreditation
CAST - Faculty

- Good will
- Special interest in education & simulation
- Structured teaching commitments
- Continuous recruitment: consultants, senior SpRs, MSc
- Watch for participants with potential to become instructors
- Nominated Course Lead Consultants
- In-house instructors training and accreditation
Faculty Training

Train the Trainer Facilitator Course

Date: October Friday 16th & Saturday 17th, 2009
Venue: RCNI Education Centre
Broomhall Hospital
Dublin 12
Course Faculty: Dr. Chris Suddes & Dr. Chris Chia
Barts and the London Simulation Centre
Course Fee: €200

Train the Trainer Simulation Instructor Course

Date: 9th March 2009
Venue: College of Anaesthetists of Ireland
53 Grafton Street, Dublin 2
Course Faculty: Dr. Eoin Kelly (Consultant Anaesthetist, Director of Education CAS), Dr. Paul Murphy (Consultant Anaesthetist, Director of Simulation CAS), Dr. David McCrossan (Consultant Anaesthetist, Director of Simulation CAS)

For further details please contact:
Liz Cole
liz@rcni.ie
www.rcni.ie
Piloting

实事求事

Workshops

Course piloting
Advertising campaign

Simulation training: a new adventure

Dr. Crina Burlacu, College of Anaesthetists in Ireland, explains the setting up of the national programme of training through simulation and details the associated benefits.

College of Anaesthetists Simulation Training Programme (CAST)

The College of Anaesthetists of Ireland is delighted to introduce the National Simulation Training Curriculum and invites NCHDs to participate at the following:

ANAESTHESIA EMERGENCIES SIMULATION COURSE (Part I)

You will be participating in full scale realistic simulated clinical scenarios followed by personalised constructive debrief. Mistakes are allowed and encouraged to happen!

To be held at a number of locations countrywide:

12th March 2018  ASSET Centre, School of Medicine, UCC, Cork
Contact: Deirdre Power, dpower@ucc.ie, 087 8818438

30th March 2018  COAI Clinical Skills and Simulation Centre, 22 Molesworth Square, Dublin 2
Contact: Mario Golden, mgolden@coai.ie, 01 2954079

16th April 2018  Western Anaesthesia Symposium, Knocknarry House Hotel, Westport
Contact: Dr. Brian Hurley, anaesthesia@nuigalway.ie

7th May 2018  RCSI Education Building, Beaumont Hospital, Dublin
Contact: Denise O'Mara, domara@rcsi.ie, 01 809 3768

May 12th ASSET Centre, School of Medicine, UCC, Cork
Contact: David Power, dpower@ucc.ie, 01 4205301

14th May 2018  Regional Clinical Skills Centre, St. James’ Hospital, Dublin
Contact: Anne Brady, abrady@stjames.ie, 01 4362413

25th May 2018  CAST Laboratory, Education Centre, College of Anaesthetists in Ireland
Contact: Maria Golden, mgolden@coai.ie, 01 2650609

The Anaesthesia Emergencies Simulation Course (Part I) is approved for training by the College of Anaesthetists in Ireland and qualifies for 8 CME points. Course fee is €400 (includes refreshments). Places are limited at 12 participants per course. For applications and bookings please contact your preferred centre from the list above.

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COAI website
www.anaesthesia.ie

After the great success of the first

ANAESTHESIA EMERGENCIES SIMULATION COURSE (PART I)

the College of Anaesthetists in Ireland is delighted to remind all NCHDs of future course dates:

April 10th Western Anaesthesia Symposium, Knocknarry House Hotel, Westport
Contact: Dr. Brian Hurley, anaesthesia@nuigalway.ie

May 7th RCSI Education Building, Beaumont Hospital, Dublin
Contact: Denise O’Mara, domara@rcsi.ie, 01 809 3768

May 12th ASSET Centre, School of Medicine, UCC, Cork
Contact: David Power, dpower@ucc.ie, 01 4205301

May 14th Regional Clinical Skills Centre, St. James’ Hospital, Dublin
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CAST - Timescale

Phase I (2010-2012)

- Anaesthetic Emergencies I
- Anaesthetic Emergencies II or ARREST course
- Obstetric Anaesthesia & Emergencies or COAST
- Paediatric Anaesthesia & Emergencies (RTPs, SpRs 1-3)
- Beginners in Anaesthesia Course (BSTs first 6 months)

Phase II (2012-2015)

- Intensive Care
- Clinical Decision Making
- MASCOT
- Multidisciplinary anaesthesia-obstetrics
Two years on...

- July 2010 - June 2012
- More than 650 trainees went through more than 60 courses delivered in 4 centres
- Each trainee participates in 1 simulation course/6 months
- 5 courses (BIA, AE, ARREST, COAST & PA) mandatory for certain training grades
- Other courses have already been piloted: Clinical Decision Making, MASCOT
- The programme has been extended to doctors in non-training positions (PDP) and other specialities
- 3 TTT courses
CAST- Evaluations

AE & ARREST 180 participants; 165 evaluations; 91% response rate; 2010

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<th>Post-course evaluation statements</th>
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<th>Range</th>
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<td>[3,5]</td>
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<td>[4,5]</td>
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<tr>
<td>S3 I found the course relevant to my stage of training</td>
<td>5</td>
<td>[1,5]</td>
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<td>[2,5]</td>
</tr>
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<td>S5 The methods of delivery were adequate to the course stated objectives</td>
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<td>[4,5]</td>
</tr>
<tr>
<td>S6 The pace of the course was adequate</td>
<td>4.5</td>
<td>[3,5]</td>
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<tr>
<td>S7 I am overall satisfied with the course</td>
<td>5</td>
<td>[4,5]</td>
</tr>
<tr>
<td>S8 The course will change my future practice</td>
<td>5</td>
<td>[2,5]</td>
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COAST course; 8 courses, 83 participants; 95% response rate; 2010-2011

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Others...
Lessons learnt & take home message
Take home message

Before you buy simulation equipment
- Assess your clinical & educational needs
- Identify your target users
- Search for best suited technology

Now you are ready to select and integrate the right technologies!
- Seek help from other centres & simulation groups
- Demand support from your institution
- Help your community understand the benefits

You are not done!
- Train your simulation educators
- Continuously monitor your clinical needs to ensure relevant training
- Aim for recurrent training
- Seek new applications of simulation
- Generate audit & research
Take home message

➤ Have a clear vision and strategy all along

➤ Start small and then evolve

➤ It hurts when simulation equipment remains in a box or the skills lab remains empty

➤ Don’t accept it from your institution, partners, managers or Faculty

➤ Ask for help, demand support, request assistance

➤ Publicise your results
Thank you!

cburlacu@coa.ie
www.anaesthesia.ie