ICNARC perspective on Irish ICU Audit
Charlie Evans - Senior Audit Manager
History

1989
History

1989

• Beaumont participate in APACHE II UK study
Outcome comparisons of intensive care units in Great Britain and Ireland using the APACHE II method.

Kathryn M. Rowan

Submitted for the degree of Doctor of Philosophy,
Faculty of Clinical Medicine,
University of Oxford.

Trinity, 1992

Department of Public Health and Primary Care,
University of Oxford.
History

- Beaumont participate in APACHE II UK study
- Beaumont join the Case Mix Programme

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2009
History

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• Beaumont participate in APACHE II UK study

2009
• Beaumont join the Case Mix Programme
• Review of Adult Critical Care Services in the Republic of Ireland
RECOMMENDATIONS

Audit

R37 The collection of a national, standard clinical dataset on the case mix, outcome and activity of adult critical care on all admissions to all adult critical care units should be developed and implemented.

R38 A national audit system to foster improvements in the organisation and practice of critical care through national benchmarking, reviewing trends and continuous comparative audit, should be implemented.

Accreditation

R39 The National Critical Care Programme should work with HIQA to implement a system for critical care unit licensing based on the national standards.
History

- 1989
  - Beaumont participate in APACHE II UK study

- 2009
  - Beaumont join the Case Mix Programme

- 2010
  - Review of Adult Critical Care Services in the Republic of Ireland
  - First contact!
History

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2009

• Beaumont join the Case Mix Programme

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• First contact!

2011

• Review of Adult Critical Care Services in the Republic of Ireland

• ICNARC awarded contract to provide ICU Audit Services in Ireland
History

- Dataset discussions begin
- IT tender released
History

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- INICUA Dataset agreed
- DMF awarded IT Tender
- DMF demo Infoflex software to ICNARC

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- INICUA web portal goes live
- Four units start data collection

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2014

- INICUA web portal goes live
- Four units start data collection

2015

- Three more units start data collection
- Units receive Quarterly Quality Reports

2016
ICNARC perspective on Irish ICU Audit

www.icnarc.org

Barriers

- Workload for ICNARC (as only partially resourced)
- Delays
  - Final dataset
  - IT tender/award
  - Software development
  - Compliance testing (ongoing)
  - Local integration at units
- = slower roll-out
Enablers

• Lead from the front by Rory, Mary and the NOCA team
• Great sense that the units want to be a part of INICUA
• Compliancy issues are resolved promptly
• Sharing of knowledge between units
Dataset

- CMP Dataset adapted to Irish Critical Care
- Key Ireland specific fields:
  - Infection - MDT
  - National Early Warning Score (News)
  - Organ donation
- Included in Additional fields report
Technical Specification

- Delivered comprehensive specification to develop software to capture audit data
- Rigorous software testing:
  - Extensive initial testing of software ensured Infoflex complied with Dataset rules
  - First quarter of data for each new unit compliance tested to ensure local implementation

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Validation system
- Developed a new bespoke IT platform for validating INICUA data
- Efficient for Ireland and ICNARC:
  - Data are queried by over 600 validation checks
  - Delta system speeds up the validation process
  - Reduced manual data entry
INICUA portal

- [https://inicua.icnarc.org/Home](https://inicua.icnarc.org/Home)
- Securely transfer files between Ireland and ICNARC
- Automated emails notify users when reports are ready to download
ICNARC Team

- **Operational team:**
  - Case Officers - Peter Cummins and Nick Carter
  - Project Management - Charlie Evans
  - Administration - Zainab Ali

ICNARC perspective on Irish ICU Audit | Charlie Evans
ICNARC Team

- Technical team
  - Data Management - Andrew Fleming
  - IT Development - Charlotte Moseley
  - Statistical support - David Harrison and Zohra Zenasni

ICNARC perspective on Irish ICU Audit | Charlie Evans
ICNARC Team

- **Senior Management team**
  - Chief Executive - **Kevin Hunt**
  - Director of Strategy & Science - **Kathy Rowan**
Workshops

- Case Officer-led Dataset workshops
  - Held in London
  - Register to attend on website
  - Cover all areas of the INICUA Dataset
  - Interactive sessions with workbook & exercises
  - Opportunity for discussion and troubleshooting
Teleconferences

- Monthly teleconference held between INICUA team and ICNARC
- Cover a range of topics:
  - Dataset queries
  - Participation issues
  - Understanding the Quarterly Quality Report (QQR)
- Opportunity for discussion and feedback
Communications

• Training section on CMP website:
  – Register for Dataset workshops and teleconferences
  – Process Guide
  – Guide to using the QQR data appendix

• Regular quarterly CMP e-bulletin
  – Contains latest news, top tips and validation status updates
  – Recognises units’ hard work!
  – Sent direct to your inbox

• Follow us on Twitter @ICNARC
Quality Improvement requests

- Additional analyses on your units data on request
  - Drill down further into your data via our Stats team
- Data access form on website
  - [https://www.icnarc.org/Our-Audit/Audits/Cmp/Reports/Access-Our-Data](https://www.icnarc.org/Our-Audit/Audits/Cmp/Reports/Access-Our-Data)
  - Ask early!
  - Be specific
  - Report to you within six weeks (resources permitting)
Units joining

- Mater ICU & HDU
- Limerick ICU
- Our Lady of Lourdes ICU

January - March
April - June
July - September
October - December

ICNARC perspective on Irish ICU Audit | Charlie Evans
Units joining

2015

- Mater ICU & HDU
- Our Lady of Lourdes ICU
- Limerick ICU
- Beaumont ICU
- Tallaght ICU

2016

- Galway ICU
- January - March
- April - June
- July - September
- October - December

ICNARC perspective on Irish ICU Audit | Charlie Evans
## Validation status

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- **Weren’t participating**
- **Period still in validation**
- **Period validated**
Admissions increasing

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Barriers

- Long gap between delivering Dataset Workshop and starting data collection
- Local integration with Clinical Information Systems
- Infoflex software errors still occur
- Some units are slightly behind in their validation
- = Not all phase 1 units have joined
**Enablers**

- Data quality is high - low numbers of validation queries
- Turnaround times for data are good
- Audit Staff are all engaged in the process
- Monthly teleconference resolves issues
- Units seeing the fruits of their labour (QQRs)
Continuing roll-out

- Supporting the units already participating
  - Continuing to improve data turnaround times
  - Receipt of QQR Q1 2016/17 - *New indicators*
  - Specific Ireland report

- Continuing roll-out of phases 1 & 2
  - 7 units still to join (Phase 1)
  - 14 further units to join (Phase 2)
  - Pilot data reviewed and feedback provided
  - Deliver Dataset workshop for new Audit Staff
Resources

- New resources on the way...
  - Guide to the QQR
  - Process Guide for INICUA
  - Guide to the ICNARC Coding Method
  - Dataset FAQ’s and bitesize presentations

- Will be available on File Exchange and ICNARC website
Events

- Specific Dataset Workshop for new Audit Staff (TBC)
- Dial into CMP Teleconferences - *(Details on website)*
- Monthly INICUA teleconferences
- CMP Annual Conference - 29 March 2017
- National ICU Audit Conference 2017 (TBC)
INICUA Database

- Increased use of Irish data
  - Growing experience of using data to facilitate local quality improvement
- INICUA database growing = BIG DATA!
  - As a basis for specific ad hoc audits
  - As a basis for research
Summary...
Summary...

- Delays in getting the Audit started
- Not as many units on board at this stage as planned

However there are positives:
- Championed by Rory, Mary and the Audit Nurses
- Units are participating well
- Data quality is high
- Units receiving QQRs
- Phase 1 and 2 roll out to continue in 2017