'Difficulties in Defining Quality: Preliminary Findings of a Scottish Audit of Acute Medical Care'

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What are the Qualities of a Quality data set?

Our Methods

Some (very preliminary) Results
A population based systematic and continuous collection of a defined dataset of patients accessing acute medical services in Scotland
What are the **Qualities** of a **Quality Data Set**?

QUALITY DATA SET

- Useful
- Complete
- Accurate
- Valid
- Comparable
- Timely

Couchoud *et al* (2013). Renal replacement therapy registries – time for structured data quality evaluation programme
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*Couchoud et al* (2013). Renal replacement therapy registries – time for structured data quality evaluation programme
Interest and awareness

Central support for Local Quality Improvement

Highlight areas of good practice and motivate change

…National Quality Improvement, Epidemiological Research and Health Care Planning
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Couchoud *et al* (2013). Renal replacement therapy registries – time for structured data quality evaluation programme
An AMU =
a ward receiving a significant number of medical admissions
under the care of a Consultant Physician

Aberdeen Royal Infirmary
Belford Hospital, Fort William
Borders General Hospital
Dumfries and Galloway Royal Hospital
Dr Gray’s Hospital, Elgin
Forth Valley Royal Hospital
Gilbert Bain Hospital, Shetland
Glasgow Royal Infirmary
Hairmyres Hospital
Monklands Hospital
Ninewells Hospital, Dundee
Perth Infirmary
Raigmore Hospital, Inverness
Royal Alexandra Hospital, Paisley
Royal Infirmary of Edinburgh
Southern General Hospital, Glasgow
St John’s Hospital, Livingston
University Hospital Ayr
University Hospital Crosshouse
Victoria Hospital, Fife
Victoria Infirmary, Glasgow
Western General Hospital, Edinburgh
Western Infirmary Hospital, Glasgow
Western Isles Hospital, Stornaway
Wishaw General Hospital
The Society for Acute Medicine Quality Indicators

QI 1: [Graph or Table]

QI 2: [Image of a person stressed out with papers]

QI 3: [Image of a desk covered in papers]

QI 4: Mortality, Direct AMU Discharge, Readmission
What are the **Qualities** of a **Quality Data Set**?

- **Complete**
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Couchoud *et al* (2013). Renal replacement therapy registries – time for structured data quality evaluation programme
Methodology

1. Data Sampling
2. Data Recording
3. Data Interpretation
4. Data Cleaning
5. Data Analysis
6. Data Presentation
7. Data Application
Data Sampling

5 patients
4 times/Month
Specified dates
0000 – 2359
Cases selected randomly from take
## RCPE Acute Medicine Working Group Data Collection of SAM Quality Indicators

<table>
<thead>
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<th>Collection week</th>
<th>DAY</th>
<th>DATE</th>
<th>Pt No</th>
<th>Referral Type</th>
<th>If GP referral, place of arrival</th>
<th>Date/Time of arrival</th>
<th>1. Date/Time of first EWS</th>
<th>2. Date/Time of CDM review</th>
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**Answer 1x per month - Does your unit routinely collect:**

- Specialty of CDM
- Consultant review
- Is this patient a 'Boarder'?
- Mortality rate
- Direct AMU discharge
- AMU re-admission rate

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<th>Specialty of CDM</th>
<th>Consultant review</th>
<th>Is this patient a 'Boarder'?</th>
<th>Mortality rate</th>
<th>Direct AMU discharge</th>
<th>AMU re-admission rate</th>
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Data Interpretation

- ‘On arrival’ = within 15 minutes

- Observational study of arrival time versus 1st EWS

- An EWS must be calculated, it is not sufficient for the observations to have been recorded alone.

- The time recorded should be the time the assessor starts their review.

- For GP referrals accessing the AMU via the ED, time of arrival should be taken as the time the patient arrived in the hospital rather than in the AMU. The reason for the diversion should be documented.
You will need:

1. The spreadsheet
2. A list of all medical presentations/admissions/boarders
3. A random number generator
4. The notes for the selected patients…
5. An arrival time
6. Time/Date stamping by CDM (89%)
7. Time/Date stamping by Consultant (78%)
8. 30 – 45 minutes per week
9. A bit of enthusiasm
Data Cleaning/Analysis/Presentation
What are the **Qualities** of a **Quality Data Set**?

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Registrars are counted in consultant review.

All medical admissions are seen in the ED.

The ED review is taken as the CDM review.

All medical admissions presenting out of hours are seen in the ED.

Patients are only admitted to the AMU if it is thought they will be discharged before 23 hrs.

In 50% of units the majority of medical patients are being seen outwith the AMU.

FY1s are the only CDMs there are.
Some

(Very Preliminary)

(Quality?)

Results…
Time from arrival to first EWS

191 admissions in chronological order
Time to 1st EWS
Time from Arrival to Competent Decision Maker Review

192 admissions in chronological order
Time to Competent Decision Maker Review
Time from Arrival to Consultant Review

207 admissions in chronological order
Time to Consultant Review
Next steps...

Short Term
- More data collection
- More units
- More meetings
- Further work on QI 4
  (Mortality/Readmission/Direct discharge)

Medium Term
- Unit Visits
- Introduction of Data evaluation/Sense Checking

Long Term
- Electronic support please
- Rationalising and expansion of the data set
- Further practical application
Acknowledgements and Thanks

• The representatives from the Scottish AMUs
  • Mike Jones
  • Dan Beckett
  • Ursula Pretsch
  • Neil Pettinger

• L.reid@rcpe.ac.uk
When you can measure what you are speaking about, and express it in numbers, you know something about it; But when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind.

William Thomson later Lord Kelvin, Mathematician and Physicist 1824 - 1907