The role of QA / QI in Obstetric Anaesthesia

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There are four key things that I want you to take away from this presentation

Whilst Audit is important to obstetric anaesthesia

- The importance of a single dataset with established data definitions
- Benefits of longitudinal data analysis

Awareness of a statewide obstetric registry
Clinical audit – guidelines

Guidelines on Quality Assurance and Quality Improvement in Anaesthesia

APPENDIX 10

Clinical audit – guidelines

Australian and New Zealand College of Anaesthetists (ANZCA)

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Clinical audit – guidelines
DEVELOPMENT OF SUPPORT FOR AUDIT AND REGISTRY PROJECTS FOR QI CAPACITY IS A KEY PRIORITY FOR ANZCA
Audit is a foundation element of Quality Assurance
Audit information allows us to understand how good we really are.
Single point estimate is often confusing

2%
Quality Improvement is leveraged off good QA

“In God we trust; all others must bring data.”

W. Edwards Deming
Institute for Health Improvement

Model for Improvement

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What change can we make that will result in improvement?

Act  Plan  Do  Study

QI Essentials Toolkit

- Cause and Effect Diagram
- Driver Diagram
- Failure Modes and Effects Analysis (FMEA)
- Flowchart
- Histogram
- Pareto Chart
- PDSA Worksheet
- Project Planning Form
- Run Chart & Control Chart
- Scatter Diagram
There are many benefits to QA/QI projects.
Successful national audits are already in place in many areas of clinical practice.
Quality improvement in anaesthesia
Edited by Dr. Carol J. Pedan

Raising the Standard:
a compendium of audit recipes
for continuous quality improvement in anaesthesia

3rd edition
2012

Editors
Dr. John R. Colvin
Dr. Carol J. Pedan
The importance of a single dataset with established data definitions

VS
Benefits of longitudinal data analysis
There are limitations to conventional audit
Control charts - turning data into information
The QLD Obstetric Anaesthetic Registry
### Anaesthetics
#### Epidural Chart Birth Suite

**Patient Information**
- **Name:**
- **Date of Birth:**
- **Sex:**
- **Allergies:**
- **Pre-anesthesia assessment by:**
- **ASA:**
- **Parity:**
- **BMI:**

**Indications**
- Obstetric
- Augmented
- Induction

**Cervical dilution**
- **3 cm**
- **7 cm**

**At Insertion**
- **Immediate complications**
- **Action taken due to complications / difficulties:**
  - Needle withdrawn
  - Catheter withdrawn

**Airway**
- **Depth of Epidural Space:**
- **Catheter Mark at Skin:**
- **Initial Dose:**

**Notified Anaesthetist**

**Suggested Management of Epidural Related Hypotension**
- **Reportable Observations:**
  - Systolic BP <
  - Heart Rate <
  - Respiratory rate <
  - Inadequate Analgesia
  - High block > 2 or more segments in 1hr (STOP infusion and notify)

**Special Instructions:**
- **Aseptic Technique:**
- **Contact:**

**Follow up**
- **Type of follow up:**
  - Review within 24 hours from delivery
  - Discharged prior to RV with phone RV
  - Unable to contact

**Pain Relief**
- **In Labour:**
- **For Delivery:**

**Problems at delivery**
- **Actions taken at follow up (record severity):**
  - Discharged from Acute Pain Service (APS)
  - Epidural blood patch
  - Neurologist referral

**Print Name:**
**Designation:**
**Date:**
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Goal</th>
<th>Value</th>
<th>Status</th>
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<tbody>
<tr>
<td>% Accidental dural puncture following Epidural</td>
<td>1%</td>
<td>1.17%</td>
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<tr>
<td>% women attended with 30 minutes</td>
<td>80%</td>
<td>89.5%</td>
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<tr>
<td>% epidural resited</td>
<td>10%</td>
<td>2.76%</td>
<td></td>
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<tr>
<td>% attended within 60 minutes</td>
<td>90%</td>
<td>96.62%</td>
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<tr>
<td>% Unsuccessful epidurals for labour</td>
<td>15%</td>
<td>13.6%</td>
<td></td>
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<tr>
<td>% Epidurals providing adequate pain relief within 45 min from insertion of needle</td>
<td>85%</td>
<td>90.54%</td>
<td></td>
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<tr>
<td>% Category 1 Caesar booking to delivery time &lt; 30 min</td>
<td>90%</td>
<td>84.04%</td>
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</tr>
<tr>
<td>% Satisfied with Epidural</td>
<td>98%</td>
<td>97.58%</td>
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<tr>
<td>% Cat 2 booking to delivery time &lt; 75 min</td>
<td>90%</td>
<td>65.37%</td>
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<tr>
<td>% Caesarean performed under RA for Cat 1</td>
<td>50%</td>
<td>50%</td>
<td></td>
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<tr>
<td>% Elective CS performed under Regional Anaesthesia</td>
<td>95%</td>
<td>98.22%</td>
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<td>% All emergency CS performed under Regional</td>
<td>85%</td>
<td>89.21%</td>
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<td>% Category 1 CS performed under regional that complain of pain during procedure</td>
<td>20%</td>
<td>5.32%</td>
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<td>% All Emergency CS under RA that complain of pain during procedure</td>
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<td>10.34%</td>
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<td>% Elective CS under RA that complain of pain during procedure</td>
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<td>8.53%</td>
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<td>% Category 1 CS converted from RA to GA</td>
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<td>0.41%</td>
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<td>5%</td>
<td>2.52%</td>
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<tr>
<td>% Elective CS converted from RA to GA</td>
<td>1%</td>
<td>1.46%</td>
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<tr>
<td>% Satisfactory pain relief after CS</td>
<td>95%</td>
<td>93.17%</td>
<td></td>
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<tr>
<td>% PDPH requiring EBP</td>
<td>1%</td>
<td>1.17%</td>
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<tr>
<td>Patient</td>
<td>URN</td>
<td>Form Contact</td>
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**Acute Pain Service Caesarean**

**Epidural Chart - Birth Suite**
How do we measure improvement?
Benefits from monitoring across institutions

Local benefits identified

- Improved data reporting
- Encouraged agreed practice standards across our service
- More timely identification of variance in clinical practice
Cont’d
To take the next step you should…
What does success look like for the QLD obstetric registry
Thank you. The End.