National Women’s Annual clinical report 21-08-15

Improving quality in maternity care

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Challenges for improvement 2015

Caesarean

High and growing caesarean rate - overall 34.6% vs 26.2% England 2013/14

Why?

Maternal request pre-labour CS 12% overall and 19% Nullips

What is this by LMC?

Highest ELCS by private LMC obstetrician 36.5%

Spontaneous Vaginal birth rate 53.1% vs 55.9 England 2011/12

Low ECV rate 32% offered and 43% success ECV with 81% of these women achieving SVD

Low VBAC rate 20% vs 30% England

What are outcomes of PBAC?
Challenges for improvement 2015

**Induction**

31.3 % induction vs 25%
England in 2013/14

What are term PROM guidelines?

47.6% labours began spontaneously

Higher rate induction by private LMC

Why?

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**Pain relief**

Epidural rate in labouring women 67.5% vs 25.6% England 11/12
Higher in women induced 68.3% and private OB LMC 83.6%

Low use of water 5.6% and Entonox 46.4%

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**Perineal outcomes**

High episiotomy rate 28.3 % vs 19.7%
England 11/12 but better to look at intact perineum?
Higher episiotomy private LMC OB - why

3rd and 4th degree tear 2.9% vs 3.3%
England 11/12
Directing care towards priority populations
Strengthening confidence in normal birth
Support transition to parenthood and infant attachment
Enhancing continuity of care
Enhancing quality and safety
Improving management of care of women with diabetes
Support for health professionals following a critical incident
Improve family violence screening

How will success and unintended consequences be measured?
Capturing patient experience (10% response) what questions are asked, CQC survey examples, national survey?

Strengthen consumer voice – How?
Other questions

Pre-term birth

Increasing % late preterm births – Why?
8.7% total preterm birth rate vs 6.8% England 2011/12 – Why
Continuity midwifery care 23% reduction overall PTB
What are PTB rates by LMC?

% women eligible for primary birth facility end of pregnancy? (45% England)
Lack of intrapartum continuity of midwifery care in high risk and medical and diabetes service?

Other outcomes not collected

Readmission rate mother and baby
Normal birth rate
Healthy mother and healthy baby
Outcomes by clinical risk

Low rates family violence screening 39% vs 100% target why?
Early registration with an LMC < 13 weeks 50% (63.5% LMC) vs 80% London (goal 90%)
Is it possible to deliver a ‘safer’ maternity service by changing how services are organised and delivered?
What do we mean by quality?

Safety
Effectiveness
Patient/woman-centeredness
Timeliness
Efficiency
Equity

What do we mean by safety?

Defined as ‘avoiding injuries to patients from the care that is intended to help them’.

The avoidance, prevention and amelioration of adverse outcomes or injuries stemming from the process of healthcare.

Focuses on dark side of quality - Care that is harmful, not just good standard.

(Vincent 2006) and WHO
Objectives

To assess the effects of care in an alternative institutional birth environment compared to care in a conventional setting. Secondary: to determine if the effects of birth settings are influenced by staffing, architectural features, organizational models or geographical location.

We found no trials of freestanding birth centres. When compared to conventional institutional settings, alternative settings were associated with reduced likelihood of medical interventions, increased likelihood of spontaneous vaginal birth, increased maternal satisfaction, and greater likelihood of continued breastfeeding at one to two months postpartum, with no apparent risks to mother or baby.

Unfortunately, in several trials, the design features of the alternative setting were confounded by differences in the organizational models of care (including separate staff and more continuity of caregiver in the alternative setting), and thus it is not possible to draw conclusions about the independent effects of the design of the birth environment. We conclude that women and policy makers should be informed about the benefits of institutional settings which focus on supporting normal labour and birth.

Birth setting - Birthplace

The evidence supports the policy of offering ‘low risk’ women a choice of birth setting.

FMUs and AMUs appear to be safe for babies and offer benefits to both the mother and baby.

For multiparous women, home births appear to be safe for babies and offer benefits to both the mother and baby.

The substantially lower incidence of major interventions, including intrapartum caesarean section, in all three non-OU settings has potential future benefits to both the woman and the NHS in terms of avoiding surgical complications and reducing the need for repeat caesarean sections in future births.

For ‘low risk women’, the cost to the NHS of intrapartum and related postnatal care, including costs associated with clinical complications, is lower for birth planned at home, in a FMU and in an AMU compared with planned birth in an OU.

Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study., Birthplace in England Collaborative Group, BMJ. 2011 Nov 23;343:
Immersion of water for pain relief was associated with a significant reduction in risk of transfer before birth for nulliparous women. Overall, immersion in water was associated with fewer interventions during labour. The effect varied across birth settings with least effect in planned home births and a larger effect observed for planned FMU births.

Transfers from home or FMU commonly take up to 60 minutes from decision to transfer, to first assessment in an OU, even for transfers for potentially urgent reasons. Most transfers are not urgent and emergencies and adverse outcomes are uncommon, but urgent transfer is more likely for nulliparous women. In women who gave birth within 60 minutes after transfer, adverse neonatal outcomes occurred in 1-2% of transfers.


Knowing your midwife by location

<table>
<thead>
<tr>
<th>Birth location</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>At home</td>
<td>51%</td>
<td>49%</td>
</tr>
<tr>
<td>Freestanding midwifery unit</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>Alongside midwifery unit</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>Obstetric unit</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>87%</strong></td>
<td><strong>13%</strong></td>
</tr>
</tbody>
</table>

Table 2: Knowing your midwife, by location (n=5139)
Continuity of midwifery care

Midwife-led continuity of care associated with several benefits for mothers and babies, and no adverse effects compared with models of medical-led care and shared care.

Women who received models of midwife-led continuity of care were nearly eight times more likely to be attended at birth by a known midwife, were 19% less likely to lose their baby before 24 weeks, 23% less likely to experience pre-term birth, 17% less likely to have regional analgesia, 12% less likely to have instrumental birth, 16% less likely to have an episiotomy, and significantly more likely to have a spontaneous vaginal birth.

Satisfaction levels were higher and there was a trend towards the cost-saving effect.

Midwife-led versus other models of care for childbearing women and their infants (all) Preterm birth (< 37 weeks).

<table>
<thead>
<tr>
<th>Study or subgroup</th>
<th>Midwife-led care</th>
<th>Other models of care</th>
<th>Risk Ratio</th>
<th>Weight</th>
<th>Risk Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n/N</td>
<td>n/N</td>
<td>M, H, Random, 95% CI</td>
<td></td>
<td>M, H, Random, 95% CI</td>
</tr>
<tr>
<td>Begley 2011</td>
<td>48/1096</td>
<td>48/549</td>
<td>-</td>
<td>15.7%</td>
<td>0.50 [0.34, 0.74]</td>
</tr>
<tr>
<td>Biro 2000</td>
<td>36/500</td>
<td>42/493</td>
<td>-</td>
<td>14.0%</td>
<td>0.85 [0.55, 1.30]</td>
</tr>
<tr>
<td>MacVicar 1993</td>
<td>110/2304</td>
<td>70/1206</td>
<td>-</td>
<td>20.6%</td>
<td>0.82 [0.61, 1.10]</td>
</tr>
<tr>
<td>Mclachlan 2012</td>
<td>29/1150</td>
<td>48/1157</td>
<td>-</td>
<td>13.0%</td>
<td>0.61 [0.39, 0.96]</td>
</tr>
<tr>
<td>Rowley 1995</td>
<td>52/410</td>
<td>54/417</td>
<td>-</td>
<td>17.2%</td>
<td>0.98 [0.69, 1.40]</td>
</tr>
<tr>
<td>Tumbull 1996</td>
<td>30/643</td>
<td>42/635</td>
<td>-</td>
<td>13.0%</td>
<td>0.71 [0.45, 1.11]</td>
</tr>
<tr>
<td>Waldenstrom 2001</td>
<td>16/486</td>
<td>12/500</td>
<td>-</td>
<td>6.4%</td>
<td>1.37 [0.66, 2.87]</td>
</tr>
<tr>
<td><strong>Total (95% CI)</strong></td>
<td><strong>6589</strong></td>
<td><strong>4957</strong></td>
<td><strong>0.77 [0.62, 0.94]</strong></td>
<td><strong>100.0%</strong></td>
<td></td>
</tr>
</tbody>
</table>

Total events: 321 (Midwife-led care), 316 (Other models of care)
Heterogeneity: Tau² = 0.03; Chi² = 10.42, df = 6 (P = 0.11); I² = 42%
Test for overall effect: Z = 2.52 (P = 0.012)
Test for subgroup differences: Not applicable
Which indicators for maternity?

Review of Quality and Safety Indicators > 300


- PPH defined 12 different ways

- RCOG found 194 different indicators

A good improvement indicator – common harm, measurable, modifiable

How to measure positive outcomes, that are important to women?
Variation in outcomes for 657,000 women giving birth in England 2010-11.

<table>
<thead>
<tr>
<th>Composite indicators (unadjusted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy mother</td>
</tr>
<tr>
<td>Without instrumental, sepsis, anaesthetic complication, return home in ( \leq 2 ) days, re-admitted in 28 days, and with bodily integrity</td>
</tr>
<tr>
<td>Healthy baby</td>
</tr>
<tr>
<td>Weight 2.5-4.5kg, born alive, 37-42 weeks gestation</td>
</tr>
<tr>
<td>Bodily Integrity</td>
</tr>
<tr>
<td>Without uterine damage, 2\textsuperscript{nd}/3\textsuperscript{rd}/4\textsuperscript{th} degree tear, sutures, episiotomy, caesarean</td>
</tr>
<tr>
<td>Normal birth</td>
</tr>
<tr>
<td>Without caesarean, instrumental, induction, anaesthetic, epidural, episiotomy</td>
</tr>
</tbody>
</table>

TABLE 17 Ten indicators: variation by trust

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Number of trusts</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy mother and healthy baby</td>
<td>113</td>
<td>28.0</td>
<td>5.4</td>
<td>13.6-48.5</td>
</tr>
<tr>
<td>Healthy mother</td>
<td>113</td>
<td>28.0</td>
<td>5.4</td>
<td>13.6-48.5</td>
</tr>
<tr>
<td>Healthy baby</td>
<td>113</td>
<td>85.2</td>
<td>3.0</td>
<td>76.9-90.3</td>
</tr>
<tr>
<td>Healthy mother/healthy baby dyad</td>
<td>113</td>
<td>24.9</td>
<td>4.9</td>
<td>12.0-44.7</td>
</tr>
<tr>
<td>Mode of birth</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery with bodily integrity</td>
<td>143</td>
<td>32.6</td>
<td>5.9</td>
<td>19.6-52.8</td>
</tr>
<tr>
<td>Normal birth</td>
<td>143</td>
<td>40.8</td>
<td>5.4</td>
<td>26.0-58.9</td>
</tr>
<tr>
<td>Spontaneous vaginal delivery</td>
<td>143</td>
<td>62.7</td>
<td>4.5</td>
<td>46.6-73.8</td>
</tr>
<tr>
<td>Intact perineum</td>
<td>143</td>
<td>43.6</td>
<td>6.8</td>
<td>25.7-66.2</td>
</tr>
<tr>
<td>Caesarean</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective caesarean</td>
<td>143</td>
<td>10.0</td>
<td>1.7</td>
<td>5.6-16.6</td>
</tr>
<tr>
<td>Emergency caesarean</td>
<td>143</td>
<td>14.6</td>
<td>2.5</td>
<td>9.0-24.9</td>
</tr>
<tr>
<td>All caesareans</td>
<td>143</td>
<td>24.6</td>
<td>3.5</td>
<td>15.2-36.1</td>
</tr>
</tbody>
</table>

\[SD, \text{standard deviation.}\]

Sandall et al 2014, The efficient use of the maternity workforce and the implications for safety and quality in maternity care: a population-based, cross-sectional study
NICE criteria

• Medical conditions
• Previous obstetric complications
• Current obstetric complications
• Fetal indications
• Previous gynae history
• Individual assessment

NICE Clinical Guideline 55\textsuperscript{2007} Intrapartum care Table Table 3.7 – 3.10.
How do we measure high quality and harm free care?

Importance and Relevance? (Does this indicator measure a sufficiently important question/service?)

Validity (Does this indicator actually measure what it is claiming to measure?).

Possibility (Is it actually possible to populate the indicator with meaningful data?).

Implications (What are you going to do about them?).
PSYCHOSOCIAL SAFETY – TO BE ASKED OF THE WOMAN

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>No concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Were you ever separated from your baby?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Were you left alone by midwives or doctors at a time when it worried you (during labour and birth)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If you raised a concern during labour and birth about safety, did you feel that it was taken seriously?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would you like to talk about any of these questions with a midwife/doctor or other person?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Thank you

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http://www.kcl.ac.uk/medicine/research/divisions/wh/index.aspx