

An Evidence based Guideline for Safe and Effective Alternatives to Caesarean Section

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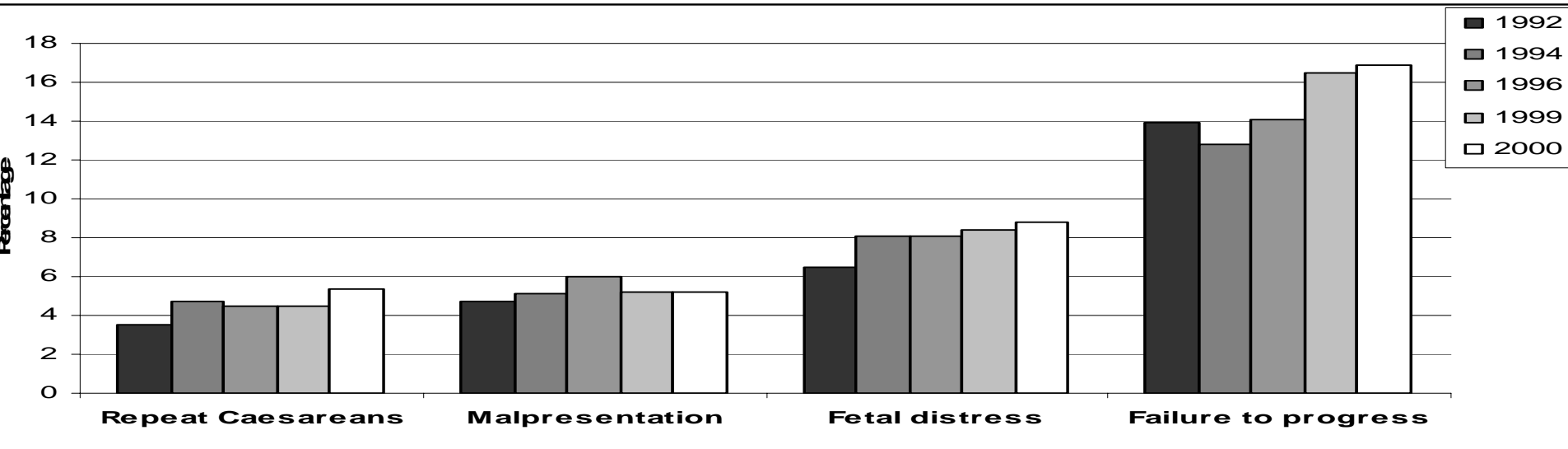
Background

- Maternity Services Review of the NHC requested guidelines in 2000
- The aim of the guidelines was to find safe and effective alternatives to caesarean section
- A multidisciplinary working party met in 2001 and after assessing the size of the task divided the topic into several smaller topics

The Drivers for Caesarean Birth

- Previous caesarean birth
- Breech presentation
- Slow labour
- Fetal distress
- Patient preference
- Multiple birth
- Preterm labour
- Maternal conditions

Indication for CS 1992-2000 NWH



Working party- 2nd meeting

August 2001

- More than 40 clinical questions derived
- Presented to the MOH and decided to work on two topics only at this stage:
 - Care of women with previous caesarean birth
 - Care of women with breech presentation

Participants

- College of Midwives
- Nga Maia
- Royal Australian and NZ College of O&G
- Royal NZ College of GPs
- Parents Center
- Maternity Services Group
- Women's Health Managers group

Purpose of guideline

To summarise the latest NZ and international literature and, combined with local NZ expertise, to provide guidance that will:

- Provide clinicians with appropriate, accurate and balanced information for making a decision on intervention with CS in women with breech presentation and women who have had previous CS;

AND

- Provide pregnant women with appropriate, accurate and balanced information on the risks and benefits of CS compared to planned vaginal delivery.

Process

- Executive group formed:
 - Cindy Farquhar, Karen Guilleland, Sharon Cole, Catherine Marshall
- Project manager: Anne Lethaby
- Two working multidisciplinary working parties for each topic
 - Two meetings for each working party
 - Evidence tables prepared by Anne Lethaby and circulated before each meeting
 - Recommendations developed in response to the clinical questions
 - Draft circulated at mid 2003, now awaiting final endorsement

Two main points

- Elective CS for term breech
- External cephalic version at 37 weeks

CS for term breech

- Cochrane review is dominated by the Term Breech Trial
 - 21% of breech births were delivered by unskilled birth attendants
 - Differences between CS and vaginal birth were smaller in countries with high national perinatal mortality rate
- But no subgroup identified by the TBT
- Cochrane review: studies from countries with high versus low perinatal mortality rate: NNT 39 vs 7 to prevent one dead or compromised infant

CS for breech presentation

- Conclusions: women with breech presentation at term have a reduction of 66% in the risk of neonatal morbidity or mortality with planned CS but at the expense of an increase of 43% in serious maternal morbidity

Recommendation

- Women with uncomplicated breech presentation at term may be offered a CS after full discussion of the risk and benefits (B)
- The evidence for this recommendation may not be applicable to all women with breech presentation as the study population was highly selected and not all the study clinicians had optimal experience in vaginal breech birth (B)

✓ Best practice point

- Breech presentation should be identified antenatally and arrangements made for a woman to deliver in an appropriate facility
- It is important that midwives, clinicians and hospitals be prepared for vaginal breech birth

Key evidence points: ECV

- External cephalic version from 37 weeks gestation can change presentation from breech to cephalic in women with uncomplicated breech pregnancy (extended or flexed leg).
- ECV from 37 weeks reduces CS rate by 50%, no impact on perinatal morbidity

Number needed to treat

- Non ECV group: CS rate 35%
- ECV group: CS rate 13%
- NNT to prevent one CS ranges from 2 - 5

Recommendations

Women with uncomplicated breech at 37/40 weeks should be offered ECV to increase the likelihood of cephalic presentation and vaginal birth (A)

ECV is not recommended prior to 37 weeks gestation (B)

Evidence for Vaginal Birth after Caesarean Section

- No randomised controlled trials
- Large cohort studies
- No long term outcomes studied

Vaginal Birth after CS

- Studies suggest vaginal birth after CS is between 60-80%
- Rates of VBAC after 2 previous CS not all that different than after 1 CS
- NWH VBAC rate is 29% (was 48% in 1992)

In pregnant women with previous CS, does planned vaginal birth have increased perinatal and maternal morbidity/mortality compared to CS?

	Elective CS	Planned VBAC	P value
Perinatal mortality	0.09-0.3%	0.19-0.6%	0.03-0.0002
Uterine rupture	0.16-0.19%	0.14-0.52%	0.001

Elective C-S

- Women undergoing elective CS have significantly higher fever rates, blood transfusion rates and hysterectomy than women undergoing planned vaginal birth

Scottish Study

- 313,238 women, 1992-1997
- PNMR/10,000 infants
 - 12.9 for women with prev CS attempting VBAC
 - 1.1 for women with prev CS having elective CS
 - 5.9 for parous women having vaginal birth
 - 9.8 for nulliparous women having vaginal birth

Key point

- Although the risks to the infant are increased in labour after CS, compared to elective CS, they are similar to those for women in their first labour with vaginal birth.

Number needed to treat

- Between 374 and 809 women who need to undergo elective CS to prevent a single case of uterine rupture

Recommendation

- Women with a previous CS with no additional risk factors should be offered VBAC (B)
- The risks and benefits of VBAC for individual women should be discussed and an informed discussion made (B)

Implementation

- Breech presentation
 - Provision of ECV services
- Vaginal birth after caesarean section
 - Offer VBAC clinics for LMCs where balanced information is provided

Performance Indicators

- Breech presentation
 - Vaginal breech birth/total number of breech births
 - Numbers undergoing ECV/total number with breech presentation at 37+ weeks
- VBAC
 - In singleton, cephalic, term presentation rates of:
 - Prelabour CS/total number of women with previous CS
 - VBAC rate/total number of women with previous CS
 - Uterine rupture
 - Peripartum hysterectomy

The Challenges

- Performance indicators
- Endorsement
- Implementation
- Personal choice