Complete Summary

GUIDELINE TITLE

The management of breech presentation.

BIBLIOGRAPHIC SOURCE(S)

Royal College of Obstetricians and Gynaecologists (RCOG). The management of breech presentation. London (UK): Royal College of Obstetricians and Gynaecologists (RCOG); 2006 Dec. 13 p. (Green-top guideline; no. 20b). [57 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Pregnancy with breech presentation

GUIDELINE CATEGORY

Counseling
Evaluation
Management
Risk Assessment

CLINICAL SPECIALTY

Family Practice
Obstetrics and Gynecology

INTENDED USERS

Advanced Practice Nurses
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

To provide up-to-date information on methods of delivery for women with breech presentation

TARGET POPULATION

Pregnant women with breech presentation

INTERVENTIONS AND PRACTICES CONSIDERED

Evaluation/Risk Assessment

Assessment of maternal and fetal factors affecting safety

Management/Treatment

1. Provision of information to women with breech presentation regarding:
    - Benefits and risks for current and future pregnancies (planned caesarean section versus planned vaginal delivery)
    - Perinatal risk of morbidity and mortality
    - Maternal complications, risks, long-term health
2. Intrapartum management of vaginal delivery
    - Labor induction, augmentation
    - Epidural analgesia during breech labor
    - Fetal monitoring during breech labor
    - Management of delayed second stage of labor with breech presentation
    - Maternal position used for breech delivery (dorsal, lithotomy)
    - Episiotomy
    - Management of delayed delivery of the arms (Lovset maneuver)
    - Management of delayed engagement in the pelvis (suprapubic pressure, Mauriceau-Smellie-Veit maneuver)
    - Delivery of the aftercoming head (forceps, Mauriceau-Smellie-Veit maneuver, Burns-Marshall method)
    - Management of obstructed delivery of the aftercoming head (conservative approach, symphysiotomy, or cesarean section)
3. Management of delivery of preterm breech and twin breech babies, including consideration of cesarean or vaginal delivery

MAJOR OUTCOMES CONSIDERED

- Incidence of breech presentation delivery
- Rate of vaginal delivery
- Rate of caesarean sections
- Maternal and fetal morbidity and mortality

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Evidence-based medicine reviews, including the Cochrane Register of Controlled Trials, were searched, together with the TRIP database, for relevant randomised controlled trials, systematic reviews, and metaanalyses. A search of Medline and PubMed (electronic databases) from 1966 to 2005 was also carried out. Search words included "breech," "external cephalic version," "fetal," "tocolysis," and "tocolytic agents" and the search was limited to humans and English language. The search was updated in May 2006 by searching PubMed for the term "breech and delivery." The author of the previous version of this guideline also liaised with the MIDIRS midwifery database and used the results of their search (November 1999).

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Ia: Evidence obtained from meta-analyses of randomised controlled trials

Ib: Evidence obtained from at least one randomised controlled trial

IIa: Evidence obtained from at least one well-designed controlled study without randomisation

IIb: Evidence obtained from at least one other type of well-designed quasi-experimental study

III: Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies, and case studies

IV: Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

The recommendations were graded according to the level of evidence upon which they were based. The grading scheme used was based on a scheme formulated by the Clinical Outcomes Group of the National Health Service Executive.

Grade A - Requires at least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation. (Evidence levels Ia, Ib)

Grade B - Requires the availability of well controlled clinical studies but no randomised clinical trials on the topic of recommendations. (Evidence levels IIa, IIb, III)

Grade C - Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates an absence of directly applicable clinical studies of good quality. (Evidence level IV)

COST ANALYSIS

Published cost analyses were reviewed that evaluated the cost-effectiveness of planned caesarean section versus vaginal birth for term breech presentation. Planned caesarean section was found to be less costly than planned vaginal birth (excluding possible future costs related to complications of a scarred uterus).

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Following discussion in the Guidelines and Audit Committee, each green-top guideline is formally peer reviewed. At the same time the draft guideline is published on the Royal College of Obstetricians and Gynaecologists Web site for further peer review discussion before final publication.

The names of author(s) and nominated peer reviewers are included in the original guideline document.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

In addition to these evidence-based recommendations, the guideline development group also identifies points of best clinical practice in the original guideline document.

Levels of evidence (**Ia-IV**) and grading of recommendations (**A-C**) are defined at the end of the "Major Recommendations" field.

What Information Should be Given to Women With Breech Presentation Regarding Mode of Delivery?

A - Women should be informed of the benefits and risks, both for the current and for future pregnancies, of planned caesarean section versus planned vaginal delivery for breech presentation at term.

What Information About the Baby Should Be Given to Women With Breech Presentation Regarding Mode of Delivery?

A - Women should be informed that planned caesarean section carries a reduced perinatal mortality and early neonatal morbidity for babies with a breech presentation at term compared with planned vaginal birth.

A - Women should be informed that there is no evidence that the long term health of babies with a breech presentation delivered at term is influenced by how the baby is born.

What Information Should Women Having Breech Births Be Given About Their Own Immediate and Future Health?

A - Women should be advised that planned caesarean section for breech presentation carries a small increase in serious immediate complications for them compared with planned vaginal birth.

A - Women should be advised that planned caesarean section for breech presentation does not carry any additional risk to long-term health outside pregnancy.

C - Women should be advised that the long-term effects of planned caesarean section for term breech presentation on future pregnancy outcomes for them and their babies are uncertain.

What Factors Affect the Safety of Vaginal Breech Delivery?

C - Women should be assessed carefully before selection for vaginal breech birth.

B - Routine radiological pelvimetry is not necessary.

C - Diagnosis of breech presentation for the first time during labour should not be a contraindication for vaginal breech birth.

Factors regarded as unfavourable for vaginal breech birth include the following:

- Other contraindications to vaginal birth (e.g., placenta praevia, compromised fetal condition)
- Clinically inadequate pelvis
- Footling or kneeling breech presentation
- Large baby (usually defined as larger than 3800 g)
- Growth-restricted baby (usually defined as smaller than 2000 g)
- Hyperextended fetal neck in labour (diagnosed with ultrasound or X-ray where ultrasound is not available)
- Lack of presence of a clinician trained in vaginal breech delivery
- Previous caesarean section

(Evidence level IV)

Some women with breech presentation choose to deliver vaginally and some women for whom a caesarean section is planned labour too quickly for the operation to be undertaken (nearly 10% of women assigned to deliver by caesarean section in the Term Breech Trial delivered vaginally).

It remains important that clinicians and hospitals are prepared for vaginal breech delivery.

Intrapartum Management

Where Should Vaginal Breech Birth Take Place?

Ready access to caesarean section is considered important, particularly in the event of poor progress in the second stage of labour. No systemic evidence exists on the complications of breech birth outside the hospital setting. (Evidence level Ib)

What is the Place of Labour Induction, Labour Augmentation, and Epidural Analgesia in Breech Labour?

C - Labour augmentation is not recommended.

There is no evidence that epidural analgesia is essential and, in selected cases, induction or augmentation may be justified. However, augmentation of established labour is controversial as poor progress in established labour may be a sign of fetopelvic disproportion. In the Term Breech Trial cohort (both groups), labour augmentation was associated with adverse perinatal outcome. (Evidence level IV)

What is the Place of Fetal Monitoring During Breech Labour?

C - Continuous electronic fetal heart rate monitoring should be offered to women with a breech presentation in labour.

How Should Delayed Second Stage of Labour With Breech Presentation be Managed?

C - Caesarean section should be considered if there is delay in the descent of the breech at any stage in the second stage of labour.

Failure of the presenting part to descend may be a sign of relative fetopelvic disproportion. Caesarean section should be considered. (Evidence level IV)

What Maternal Position Should be Used for Breech Delivery?

C - Women should be advised that, as most experience with vaginal breech birth is in the dorsal or lithotomy position, that this position is advised.

Should Routine Episiotomy be Performed?

C - Episiotomy should be performed when indicated to facilitate delivery.

Should Breech Extraction be Performed Routinely?

C - Breech extraction should not be used routinely.

How Should Delayed Delivery of the Arms be Managed?

C - The arms should be delivered by sweeping them across the baby's face and downwards or by the Lovset manoeuvre (rotation of the baby to facilitate delivery of the arms).

How Should Delayed Engagement in the Pelvis of the Aftercoming Head Be Managed?

C - Suprapubic pressure by an assistant should be used to assist flexion of the head.

C - The Mauriceau-Smellie-Veit manoeuvre should be considered, if necessary, displacing the head upwards and rotating to the oblique diameter to facilitate engagement.

How Should the Aftercoming Head be Delivered?

C - The aftercoming head may be delivered with forceps, the Mauriceau-Smellie-Veit manoeuvre, or the Burns-Marshall method.

How Should Obstructed Delivery of the Aftercoming Head be Managed?

C - If conservative methods fail, symphysiotomy or caesarean section should be performed.

Management of the Preterm Breech and Twin Breech

How Should Preterm Babies in Breech Presentation be Delivered?

C - Routine caesarean section for the delivery of preterm breech presentation should not be advised.

A specific problem encountered during preterm breech delivery is delivery of the truck through an incompletely dilated cervix. In this situation, lateral cervical incisions have been used to release the aftercoming head. Similar rates of head entrapment have been described for vaginal and abdominal delivery. (Evidence level IV)

In the absence of god evidence that a preterm baby needs to be delivered by caesarean section, the decision about the mode of delivery should be made after close consultation with the woman and her partner. (Evidence level IV)

How Should a First Twin in Breech Presentation at Term be Delivered?

C - Women should be informed of the benefits, including reduced perinatal mortality, and risks, both for the current and for future pregnancies, of planned caesarean section for breech presentation.

C - Women should be advised that planned caesarean section for breech presentation carries a very small increase in serious immediate complications for them compared with planned vaginal birth.

How Should a Second Twin in Breech Presentation be Delivered?

C - Routine caesarean section for twin pregnancy with breech presentation of the second twin should not be performed.

Definitions:

Grading of Recommendations

Grade A - Requires at least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation. (**Evidence levels Ia, Ib**)

Grade B - Requires the availability of well controlled clinical studies but no randomised clinical trials on the topic of recommendations. (**Evidence levels IIa, IIb, III**)

Grade C - Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates an absence of directly applicable clinical studies of good quality. (**Evidence level IV**)

Levels of Evidence

Ia: Evidence obtained from meta-analyses of randomised controlled trials

Ib: Evidence obtained from at least one randomised controlled trial

IIa: Evidence obtained from at least one well-designed controlled study without randomisation

IIb: Evidence obtained from at least one other type of well-designed quasi-experimental study

III: Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies, and case studies

IV: Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identifies and graded for each recommendation (see "Major Recommendations" field).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate decision making regarding the route of delivery and choice of various techniques used in the management of breech presentation

POTENTIAL HARMS

- Planned cesarean section for breech presentation carries a small increase in serious immediate maternal complications compared with planned vaginal birth.

- Planned vaginal birth may increase the risk of perinatal mortality, neonatal morbidity and neonatal mortality compared to planned cesarean section.

CONTRAINDICATIONS

CONTRAINDICATIONS

Contraindications to vaginal breech birth include placenta praevia and compromised fetal condition).

QUALIFYING STATEMENTS

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- These guidelines are "systematically developed statements which assist clinicians and patients in making decisions about appropriate treatment for specific conditions." Each guideline is systematically developed using a standardised methodology. Exact details of this process can be found in Clinical Governance Advice No. 1: Guidance for the Development of RCOG Green-top Guidelines (See the "Availability of Companion Documents" field in this summary.)
- These recommendations are not intended to dictate an exclusive course of management or treatment. They must be evaluated with reference to individual patient needs, resources and limitations unique to the institution and variations in local populations. It is hoped that this process of local ownership will help to incorporate these guidelines into routine practice. Attention is drawn to areas of clinical uncertainty where further research may be indicated.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Royal College of Obstetricians and Gynaecologists (RCOG). The management of breech presentation. London (UK): Royal College of Obstetricians and Gynaecologists (RCOG); 2006 Dec. 13 p. (Green-top guideline; no. 20b). [57 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Dec

GUIDELINE DEVELOPER(S)

Royal College of Obstetricians and Gynaecologists - Medical Specialty Society

SOURCE(S) OF FUNDING

Royal College of Obstetricians and Gynaecologists

GUIDELINE COMMITTEE

Guidelines and Audit Committee of the Royal College of Obstetricians and Gynaecologists

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Authors: Professor GJ Hofmeyr, FRCOG, East London, South Africa; and Mr LWM Impey, MRCOG, Oxford

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Guideline authors are required to complete a "declaration of interests" form.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.

Print copies: Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Bookshop, 27 Sussex Place, Regent's Park, London NW1 4RG; Telephone: +44 020 7772 6276; Fax, +44 020 7772 5991; e-mail: bookshop@rcog.org.uk. A listing and order form are available from the RCOG Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Development of RCOG green-top guidelines: policies and processes. Clinical Governance Advice No 1a. 2006 Nov. Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.
- Development of RCOG green-top guidelines: producing a scope. Clinical Governance Advice No 1b. 2006 Nov. Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.
- Development of RCOG green-top guidelines: producing a clinical practice guideline. Clinical Governance Advice No 1c. 2006 Nov. Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.
- Searching for evidence. Clinical Governance Advice No 3. 2001 Oct. Available from the Royal College of Obstetricians and Gynaecologists (RCOG) Web site.

Additionally, auditable standards can be found in section 10 of the original guideline document.

PATIENT RESOURCES

None available

NGC STATUS

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