



## Complete Summary

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### GUIDELINE TITLE

Shoulder dystocia.

### BIBLIOGRAPHIC SOURCE(S)

Royal College of Obstetricians and Gynaecologists (RCOG). Shoulder dystocia. London (UK): Royal College of Obstetricians and Gynaecologists (RCOG); 2005 Dec. 13 p. (Guideline; no. 42). [63 references]

### GUIDELINE STATUS

This is the current release of the guideline.

## COMPLETE SUMMARY CONTENT

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## SCOPE

### DISEASE/CONDITION(S)

Shoulder dystocia

### GUIDELINE CATEGORY

Management  
Prevention  
Risk Assessment

### CLINICAL SPECIALTY

Family Practice  
Obstetrics and Gynecology

## **INTENDED USERS**

Advanced Practice Nurses  
Nurses  
Physician Assistants  
Physicians

## **GUIDELINE OBJECTIVE(S)**

- To review the current evidence regarding the possible prediction, prevention, and management of shoulder dystocia
- To provide some guidance for skill drills for the management of shoulder dystocia

## **TARGET POPULATION**

Women in labor whose deliveries are at risk for or complicated by shoulder dystocia

## **INTERVENTIONS AND PRACTICES CONSIDERED**

1. Consideration of risk factors for shoulder dystocia
2. Induction of labour to prevent shoulder dystocia (considered but not recommended)
3. Elective cesarean delivery for suspected fetal macrosomia in women with diabetes mellitus
4. Ancillary manoeuvres including McRoberts' manoeuvre and suprapubic pressure
5. Avoidance of fundal pressure during delivery
6. Risk management

## **MAJOR OUTCOMES CONSIDERED**

- Predictive value of risk factors for shoulder dystocia
- Maternal and neonatal morbidity

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Hand-searches of Published Literature (Primary Sources)  
Searches of Electronic Databases

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

Previous guidelines within this subject area were sought using the sites and gateways laid out in the Royal College of Obstetricians and Gynaecologists (RCOG) clinical governance advice document, "Searching for Evidence." (See the "Availability of Companion Documents" field in this summary.) The Cochrane Library (including the Database of Systematic Reviews, DARE, and the trials

registry) and Medline were searched using a combination of Medical Subject Heading (MeSH) terms and keywords.

The search was restricted to articles published in English between January 1980 and August 2004. Key words used in the literature search included: shoulder dystocia, macrosomia, McRoberts' manoeuvre, obstetric manoeuvres, complications of labour/delivery, brachial plexus injury, Erb's palsy, Klumpke's palsy, symphysiotomy, Zavanelli manoeuvre, skill drills, rehearsal of obstetric emergencies, and medical simulation.

Reference lists of the articles identified were hand-searched for additional articles and some experts within the field were contacted.

## **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-analysis 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**

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 (NHS) 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-conducted 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 experience of respected authorities. Indicates an absence of directly applicable clinical studies of good quality (evidence level IV)

## **COST ANALYSIS**

A formal cost analysis was not performed and published cost analyses were not reviewed.

## **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 (RCOG) Web site for further peer 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.

## **Prediction**

### **Can Shoulder Dystocia be Predicted?**

**B** - Risk assessments for the prediction of shoulder dystocia are insufficiently predictive to allow prevention of the large majority of cases.

## **Prevention**

### **Management of Suspected Fetal Macrosomia**

*Does Induction of Labour Prevent Shoulder Dystocia?*

**A** - There is no evidence to support induction of labour in women without diabetes at term where the fetus is thought to be macrosomic.

**A** - Induction of labour in women with diabetes mellitus does not reduce the maternal or neonatal morbidity of shoulder dystocia.

*Should Elective Caesarean Section be Recommended for Suspected Fetal Macrosomia?*

**C** - Elective caesarean section is not recommended to reduce the potential morbidity for pregnancies complicated by suspected fetal macrosomia without maternal diabetes mellitus.

**C** - Elective caesarean section should be considered to reduce the potential morbidity for pregnancies complicated by suspected fetal macrosomia associated with maternal diabetes mellitus.

## **Management**

### **Delivery**

*How Should Shoulder Dystocia be Managed?*

**C** - Fundal pressure should not be employed.

**B** - Episiotomy is not necessary for all cases.

The Managing Obstetric Emergencies and Trauma (MOET) Group suggests a selective approach, reserving episiotomy to facilitate manoeuvres such as delivery

of the posterior arm or internal rotation of the shoulders. An episiotomy should therefore be considered but it is not mandatory. (Evidence level III)

**B** - McRoberts' manoeuvre is the single most effective intervention and should be performed first.

**C** - Suprapubic pressure is useful.

Suprapubic pressure can be employed together with McRoberts' manoeuvre to improve success rates. (Evidence level IV)

### **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-conducted 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 experience 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-analysis 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)**

A clinical algorithm for the management shoulder dystocia is provided in the original guideline document.

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

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

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

Appropriate management of deliveries at risk of or complicated by shoulder dystocia to improve maternal and neonatal outcomes

### POTENTIAL HARMS

Not stated

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

- Clinical 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 Royal College of Obstetricians & Gynaecologists (RCOG) Green-top Guidelines.
- 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.
- Owing to the emergency nature of the condition, most published series examining procedures for the management of shoulder dystocia are retrospective case series or case reports. Areas lacking evidence are annotated as "good practice points."

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

### IMPLEMENTATION TOOLS

Audit Criteria/Indicators  
Chart Documentation/Checklists/Forms  
Clinical Algorithm

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  
Safety  
Timeliness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

Royal College of Obstetricians and Gynaecologists (RCOG). Shoulder dystocia. London (UK): Royal College of Obstetricians and Gynaecologists (RCOG); 2005 Dec. 13 p. (Guideline; no. 42). [63 references]

### ADAPTATION

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

### DATE RELEASED

2005 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

## **COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

*Committee Members:* Professor Deirdre J Murphy, MRCOG (Chair); Caroline Bearfield, Guidelines Research Fellow; Ms Toni Belfield, Consumers' Representative; Professor P R Braude, FRCOG, Chairman, Scientific Advisory Committee; Mrs C Dhillon, Head of Clinical Governance and Standards Dept.; Dr Martin Dougherty, A. Director NCC-WCH; Miss L M M Duley, FRCOG, Chairman, Patient Information Subgroup; Mr Alan S Evans, FRCOG; Dr Mehmet R Gazvani, MRCOG; Dr Rhona G Hughes, FRCOG; Mr Anthony J Kelly MRCOG; Dr Gwyneth Lewis, FRCOG, Department of Health; Dr Mary A C Macintosh, MRCOG, CEMACH; Dr Tahir A Mahmood, FRCOG; Mrs Caroline E Overton, MRCOG, Reproductive medicine; Dr David Parkin, FRCOG; Oncology; Ms Wendy Riches, NICE; Mr Mark C Slack, MRCOG, Urogynaecology; Mr Stephen A Walkinshaw, FRCOG, Maternal and Fetal Medicine; Dr Eleni Mavrides, Trainees Representative

## **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](mailto:bookshop@rcog.org.uk). A listing and order form are available from the [RCOG Web site](#).

## **AVAILABILITY OF COMPANION DOCUMENTS**

The following are available:

- Guidance for the development of RCOG green-top guidelines. Clinical Governance Advice No 1. 2000 Jan. 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 7.3 and an example reporting form is provided in Appendix II of the [original guideline document](#).

## **PATIENT RESOURCES**

None available

## **NGC STATUS**

This NGC summary was completed by ECRI on March 10, 2006. The information was verified by the guideline developer on April 26, 2006.

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