



Complete Summary

GUIDELINE TITLE

Perinatal care at the threshold of viability.

BIBLIOGRAPHIC SOURCE(S)

American College of Obstetricians and Gynecologists (ACOG). Perinatal care at the threshold of viability. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2002 Sep. 8 p. (ACOG practice bulletin; no. 38). [32 references]

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SCOPE

DISEASE/CONDITION(S)

- Extremely preterm birth
- Extremely low-birth-weight (LBW) newborns

GUIDELINE CATEGORY

Counseling
Evaluation
Management

CLINICAL SPECIALTY

Obstetrics and Gynecology
Pediatrics

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

- To aid practitioners in making decisions about appropriate obstetric and gynecologic care
- To describe the potential consequences of extremely preterm birth and to provide clinical management guidelines based on the best available data

TARGET POPULATION

- Women delivering extremely preterm newborns
- Extremely preterm and extremely low-birth-weight newborns

INTERVENTIONS AND PRACTICES CONSIDERED

1. Counseling the patient and her family about the likelihood of survival and morbidity of an extremely preterm or extremely low-birth-weight infant
2. Assessment of estimated gestational age and weight
3. Maternal transport to a tertiary care center before delivery
4. Use of antenatal corticosteroids
5. Ethical considerations in aggressive resuscitation
6. Discussion with family members regarding the assessment, prognosis, and recommendations for the newborn care
7. Use of compassionate care of infant if decision is made to withdraw life support
8. Proactive programs to assess and support the infant through early school years
9. Supporting the patient and her family after perinatal loss

MAJOR OUTCOMES CONSIDERED

- Survival and disability rates in extremely preterm or extremely low-birth-weight infants
- Risk factors for cerebral palsy

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

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

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The MEDLINE database, the Cochrane Library, and the American College of Obstetricians and Gynecologists' (ACOG's) own internal resources and documents were used to conduct a literature search to locate relevant articles published between January 1985 and January 2001. The search was restricted to articles published in the English language. Priority was given to articles reporting results of original research, although review articles and commentaries also were

consulted. Abstracts of research presented at symposia and scientific conferences were not considered adequate for inclusion in this document.

Guidelines published by organizations or institutions such as the National Institutes of Health and the American College of Obstetricians and Gynecologists were reviewed, and additional studies were located by reviewing bibliographies of identified articles.

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

Studies were reviewed and evaluated for quality according to the method outlined by the U.S. Preventive Services Task Force.

I Evidence obtained from at least one properly designed randomized controlled trial

II -1 Evidence obtained from well-designed controlled trials without randomization

II -2 Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group

II -3 Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.

III Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

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

Analysis of available evidence was given priority in formulating recommendations. When reliable research was not available, expert opinions from obstetrician-gynecologists were used. See also the "Rating Scheme for the Strength of Recommendations" field regarding Grade C recommendations.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Based on the highest level of evidence found in the data, recommendations are provided and graded according to the following categories:

Level A - Recommendations are based on good and consistent scientific evidence.

Level B - Recommendations are based on limited or inconsistent scientific evidence.

Level C - Recommendations are based primarily on consensus and expert opinion.

COST ANALYSIS

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

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Practice Bulletins are validated by two internal clinical review panels composed of practicing obstetrician-gynecologists generalists and sub-specialists. The final guidelines are also reviewed and approved by the American College of Obstetricians and Gynecologists (ACOG) Executive Board.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The grades of evidence (I-III) and levels of recommendations (A-C) are defined at the end of the "Major Recommendations."

The following recommendations are based on good and consistent scientific evidence (Level A):

- In general, parents of anticipated extremely preterm fetuses can be counseled that the neonatal survival rate for newborns increases from 0% at 21 weeks of gestation to 75% at 25 weeks of gestation, and from 11% at 401

- to 500 g birth weight to 75% at 701 to 800 g birth weight. In addition, females generally have a better prognosis than males.
- In general, parents of anticipated extremely preterm fetuses can be counseled that infants delivered before 24 weeks of gestation are less likely to survive, and those who do are not likely to survive intact. Disabilities in mental and psychomotor development, neuromotor function, or sensory and communication function are present in approximately one half of extremely preterm fetuses.

The following recommendations are based on limited or inconsistent scientific evidence (Level B):

- Based on data from retrospective studies, maternal transport to a tertiary care center before delivery should be considered when possible.
- The effects of aggressive resuscitation at birth on the outcome of the extremely preterm fetus also are unclear. Therefore, management decisions regarding the extremely preterm fetus must be individualized.
- The effect of antenatal steroid use in the extremely preterm fetus is unclear; however, it is recommended that all women at risk of preterm delivery between 24 and 34 weeks of gestation be considered candidates for a single course of corticosteroids.
- Prospectively collected outcome data for extremely preterm fetuses are available. Whenever possible, data specific to the age, weight, and sex of the individual extremely preterm fetus should be used to aid management decisions made by obstetricians and parents of fetuses at risk for preterm delivery before 26 completed weeks of gestation. This information may be developed by each institution and should indicate the population used in determining estimates of survivability.

The following recommendations are based primarily on consensus and expert opinion (Level C):

- When extremely preterm birth is anticipated, the estimated gestational age and weight should be carefully assessed, the prognosis for the fetus should be determined, and each member of the health care team should make every effort to maintain a consistent theme in their discussion with family members regarding the assessment, prognosis, and recommendations for care.
- Because it is difficult to predict how an individual extremely preterm newborn will develop, proactive programs to assess and support the infant through early school years are desirable. When the extremely preterm newborn does not survive, support should be provided to the family by physicians, nurses, and other staff after the infant's death.

Definitions:

Grades of Evidence

I Evidence obtained from at least one properly designed randomized controlled trial

II-1 Evidence obtained from well-designed controlled trials without randomization

II-2 Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one center or research group

II-3 Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.

III Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

Levels of Recommendations

Level A - Recommendations are based on good and consistent scientific evidence.

Level B - Recommendations are based on limited or inconsistent scientific evidence.

Level C - Recommendations are based primarily on consensus and expert opinion.

CLINICAL ALGORITHM(S)

None provided

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").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Improved understanding of potential consequences of extremely preterm birth
- Appropriate management of extremely preterm and extremely low-birth-weight newborns

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

These guidelines should not be construed as dictating an exclusive course of treatment or procedure. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to the institution or type of practice.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

End of Life Care
Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

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

DATE RELEASED

1995 (revised 2002 Sep)

GUIDELINE DEVELOPER(S)

American College of Obstetricians and Gynecologists - Medical Specialty Society

SOURCE(S) OF FUNDING

American College of Obstetricians and Gynecologists (ACOG)

GUIDELINE COMMITTEE

American College of Obstetricians and Gynecologists (ACOG) Committee on Practice Bulletins-Obstetrics

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: American College of Obstetricians and Gynecologists (ACOG). Perinatal care at the threshold of viability. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 1995 Nov.

GUIDELINE AVAILABILITY

Electronic copies: Not available at this time.

Print copies: Available for purchase from the American College of Obstetricians and Gynecologists (ACOG) Distribution Center, PO Box 4500, Kearneysville, WV 25430-4500; telephone, 800-762-2264, ext. 192; e-mail: sales@acog.org. The ACOG Bookstore is available online at the [ACOG Web site](#).

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on February 4, 2004. The information was verified by the guideline developer on July 26, 2004.

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