Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL GUIDELINE CLEARINGHOUSE

General

Guideline Title

Best evidence statement (BESt). Care of adults with congenital heart disease.

Bibliographic Source(s)

Cincinnati Children's Hospital Medical Center. Best evidence statement (BESt). Care of adults with congenital heart disease. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2012 Dec 3. 5 p. [8 references]

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

The strength of the recommendation (strongly recommended, recommended, or no recommendation) and the quality of the evidence (1aâ€'5b) are defined at the end of the "Major Recommendations" field.

It is recommended that cardio-thoracic surgery and other cardiovascular procedures for adults with congenital heart disease (ACHD) patients be performed in an ACHD regional center which may be established in a pediatric facility, adult facility, combined or freestanding unit (American College of Cardiology, 2001 [5a]; Warnes et al., 2008 [5a]; Murphy, 2003 [5a]; Landzberg et al., 2001 [5a]; Deanfield, 2003 [5a]; Ochiai et al., 2011 [5a]; Webb, 2010 [5a]).

Definitions:

Table of Evidence Levels

Quality Level	Definition
1a† or 1b†	Systematic review, meta-analysis, or meta-synthesis of multiple studies
2a or 2b	Best study design for domain
3a or 3b	Fair study design for domain
4a or 4b	Weak study design for domain
5a or 5b	General review, expert opinion, case report, consensus report, or guideline

Quality Level	Definition
5	Local Consensus

†a = good quality study; b = lesser quality study

Table of Recommendation Strength

Strength	Definition
It is strongly recommended that… It is strongly recommended that… not…	There is consensus that benefits clearly outweigh risks and burdens (or visa-versa for negative recommendations).
It is recommended that… It is recommended that… not…	There is consensus that benefits are closely balanced with risks and burdens.
There is insufficient evidence and a lack of consensus to make a recommendation…	

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Congenital heart disease

Guideline Category

Management

Clinical Specialty

Cardiology

Family Practice

Internal Medicine

Pediatrics

Surgery

Thoracic Surgery

Intended Users

Advanced Practice Nurses

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To evaluate, among healthcare facilities, and its healthcare providers; performing cardio-thoracic surgery and other cardiovascular procedures for adults with congenital heart disease (ACHD), if care provided at a pediatric facility versus care provided at an adult facility, leads to better patient outcomes

Target Population

Adults with congenital heart disease, 18 years of age and older, who require cardio-thoracic surgery, and other cardiovascular procedures specific to their congenital heart defect

Interventions and Practices Considered

Cardio-thoracic surgery and other cardiovascular procedures for adults with congenital heart disease (ACHD) provided at a pediatric facility versus at an adult facility

Major Outcomes Considered

- Post-operative mortality rate
- Adverse events

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Search Strategy

- Databases Searched: Scopus
- Search Terms: congenital heart defects; cardiac patients, hospital, adult and child; pediatric nursing, adult care; congenital heart disease, adult and pediatric facility; ACHD, congenital heart surgeon, adult heart surgeon
- Filters: English Language
- Last Search: August 17, 2012

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

Table of Evidence Levels

Quality Level	Definition
1a† or 1b†	Systematic review, meta-analysis, or meta-synthesis of multiple studies
2a or 2b	Best study design for domain
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5a or 5b	General review, expert opinion, case report, consensus report, or guideline
5	Local Consensus

†a = good quality study; b = lesser quality study

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

Not stated

Rating Scheme for the Strength of the Recommendations

Table of Recommendation Strength

Strength	Definition
It is strongly recommended that… It is strongly recommended that… not…	There is consensus that benefits clearly outweigh risks and burdens (or visa-versa for negative recommendations).
It is recommended that… It is recommended that… not…	There is consensus that benefits are closely balanced with risks and burdens.
There is insufficient evidence and a lack of consensus to make a recommendation…	

Cost Analysis

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

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

This Best Evidence Statement has been reviewed against quality criteria by two independent reviewers from the Cincinnati Children's Hospital Medical Center (CCHMC) Evidence Collaboration.

Evidence Supporting the Recommendations

References Supporting the Recommendations

American College of Cardiology. 32nd Bethesda Conference: care of the adult with congenital heart disease. J Am Coll Cardiol. 2001;37:1161-98.

Deanfield J, Thaulow E, Warnes C, Webb G, Kolbel F, Hoffman A, Sorenson K, Kaemmer H, Thilen U, Bink-Boelkens M, Iserin L, Daliento L, Silove E, Redington A, Vouhe P, Priori S, Alonso MA, Blanc JJ, Budaj A, Cowie M, et al. Management of grown up congenital heart disease. Eur Heart J. 2003 Jun;24(11):1035-84. [82 references] PubMed

Landzberg MJ, Murphy DJ Jr, Davidson WR Jr, Jarcho JA, Krumholz HM, Mayer JE Jr, Mee RB, Sahn DJ, Van Hare GF, Webb GD, Williams RG. Task force 4: organization of delivery systems for adults with congenital heart disease. J Am Coll Cardiol. 2001 Apr;37(5):1187-93. PubMed

Murphy DJ. The patient population and requirements for optimal care. Progr Pediatr Cardiol. 2003;17(1):3-7.

Ochiai R, Murakami A, Toyoda T, Kazuma K, Niwa K. Opinions of physicians regarding problems and tasks involved in the medical care system for patients with adult congenital heart disease in Japan. Congenit Heart Dis. 2011 Jul-Aug;6(4):359-65. PubMed

Warnes CA, Williams RG, Bashore TM, Child JS, Connolly HM, Dearani JA, Del Nido P, Fasules JW, Graham TP Jr, Hijazi ZM, Hunt SA, King ME, Landzberg MJ, Miner PD, Radford MJ, Walsh EP, Webb GD. ACC/AHA 2008 guidelines for the management of adults with congenital heart disease: executive summary: a report of the American College of Cardiology/American Heart Association task force on practice guidelines [trunc]. Circulation. 2008 Dec 2;118(23):2395-451. PubMed

Webb G. The long road to better ACHD care. Congenit Heart Dis. 2010 May-Jun;5(3):198-205. PubMed

Type of Evidence Supporting the Recommendations

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

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Improved patient outcomes such as lower post-operative mortality rate and fewer adverse events

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

This Best Evidence Statement addresses only key points of care for the target population; it is not intended to be a comprehensive practice guideline. These recommendations result from review of literature and practices current at the time of their formulation. This Best Evidence Statement does not preclude using care modalities proven efficacious in studies published subsequent to the current revision of this document. This document is not intended to impose standards of care preventing selective variances from the recommendations to meet the specific and unique requirements of individual patients. Adherence to this Statement is voluntary. The clinician in light of the individual circumstances presented by the patient must make the ultimate judgment regarding the priority of any specific procedure.

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

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Cincinnati Children's Hospital Medical Center. Best evidence statement (BESt). Care of adults with congenital heart disease. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2012 Dec 3. 5 p. [8 references]

Adaptation

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

Date Released

2012 Dec 3

Guideline Developer(s)

Cincinnati Children's Hospital Medical Center - Hospital/Medical Center

Source(s) of Funding

Cincinnati Children's Hospital Medical Center

Guideline Committee

Not stated

Composition of Group That Authored the Guideline

Team Leader/Author: Jeanette Harris, MBA, BSN, BS, RN

Support/Consultant: Carolyn Smith, MSN/RN, Center for Professional Excellence – Research & Evidence Based Practice

Financial Disclosures/Conflicts of Interest

Conflicts of Interest were declared for each team member and no financial conflicts of interest were found.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available from the Cincinnati Children's Hospital Medical Web site .

Print copies: For information regarding the full-text guideline, print copies, or evidence-based practice support services contact the Cincinnati Children's Hospital Medical Center Health James M. Anderson Center for Health Systems Excellence at EBDMInfo@cchmc.org.

Availability of Companion Documents

The following are available:

- Judging the strength of a recommendation. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2008 Jan. 1 p. Available from the Cincinnati Children's Hospital Medical Center Web site.
- Grading a body of evidence to answer a clinical question. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 1 p. Available from the Cincinnati Children's Hospital Medical Center Web site.
- Table of evidence levels. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2008 Feb 29. 1 p. Available from the Cincinnati Children's Hospital Medical Center Web site.

Print copies: For information regarding the full-text guideline, print copies, or evidence-based practice support services contact the Cincinnati Children's Hospital Medical Center Health James M. Anderson Center for Health Systems Excellence at EBDMInfo@cchmc.org.

In addition, suggested process or outcome measures are available in the original guideline document.

Patient Resources

None available

NGC Status

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