

Date: April 25, 2013

Title: Culturally Sensitive Asthma Education

Clinical Question:

- | | |
|------------------------|---|
| P (Population/Problem) | Among patients with asthma living in urban* setting |
| I (Intervention) | does a culturally sensitive approach to asthma education for patients and/or their families |
| C (Comparison) | as compared to a generic approach to asthma education |
| O (Outcome) | effect completion of a homecare asthma education program and adherence to treatment? |

[Definitions for terms marked with * may be found in the Supporting Information section.](#)

Target Population for the Recommendation:

Inclusion: Children ages 2-18 years with asthma and/or their families living in urban settings referred for asthma education.

Exclusion: Children without asthma or those children with asthma outside urban setting.

Recommendation:

It is strongly recommended that health care providers use culturally sensitive educational materials to educate patients with asthma and/or their families, living in urban settings to heighten adherence to proposed treatment (Bailey et al., 2009 [1a]).

Discussion/Synthesis of Evidence related to the recommendation:

Bailey et al. (2009, [1a]) conducted a meta-analysis that included four randomized controlled trials inclusive of 617 minority adults and children whose ages ranged from 5-59 years-old. The researchers concluded that culturally specific asthma education programs resulted in decreased hospitalizations and improved quality of life through asthma knowledge (Bailey et al., 2009 [1a]). Asthma severity is increased in minority groups and is complicated by urban living (e.g. multifamily dwellings, transportation, violence, pollution). These complications can be related to inferior housing, environmental risks, social structures and poor neighborhoods (Davidson et al., 2010 [5a]). Culturally specific asthma education should encompass caregiver symptom perception, understanding and disease management within the context of their cultural beliefs and practices. Self-management has been identified as the most important aspect to asthma education in the prevention of morbidity and mortality caused by day to day asthma symptoms (Bailey et al., 2009 [1a]).

References:

- Bailey, E. J., Cates, C. J., Kruske, S. G., Morris, P. S., Brown, N. & Change, A. B. (2009). Culture-specific programs for children and adults from minority groups who have asthma. Retrieved from The Cochrane Library: <http://www.thecochranelibrary.com/view/0/index.html> [1a].
- Beck, A. F., Simmons, J.M., Huang, B. & Khan, R.S. (2012). Geomedicine: Area-based socioeconomic measures for assessing risk of hospital reutilizing among children with asthma. Retrieved from American Journal of Public Health: <http://ajph.aphapublications.org/> [4a].
- Davidson, E., Liu, J. J. & Sheikh, A. (2010). The impact of ethnicity on asthma care. *Primary Care of Respiratory Journal*, 19(3): 202- 208. doi: 10.4104/pcrj.2010.00013 [5a].
- Merriam-Webster Dictionary. (n.d.) Retrieved from Merriam-Webster Dictionary: [Sawyer, S., M & Shah, S. \(2004\). Improving asthma outcomes in harder to reach populations: challenges for clinical and community interventions. *Paediatric Respiratory Reviews*, 20: -213. doi:10.1016/j.prrv.2004.04.007 \[5a\].](http://www.learnersdictionary.com/search/urban)

IMPLEMENTATION

Applicability Issues:

Health care providers developing culturally specific materials need to take into consideration aspects of culture, religion, and physical features of clients or the population to be served and make allowance for culturally specific health care beliefs and attitudes as well as individual preferences, while avoiding cultural stereotypes (Davidson, Liu, & Sheikh, 2010 [5a]). Materials used to teach culture specific asthma care should adhere to organizational policies. In addition to culturally specific materials, provider-client interaction including cross-cultural communication, competence, health literacy promotion as well as an appreciation for diversity will increase the learning potential (Davidson et al., 2010 [5a]). Initially there will be cost for translation and materials development however return on investment may be realized from improved treatment adherence (Bailey et al., 2009 [5a]).

Relevant CCHMC Tools for Implementation:

CCHMC asthma education binder, Asthma Control Test (ACT Score), Home health laptop computer

Outcome or Process Measures:

Outcome measures include the Asthma Caregiver Knowledge Scale and the Pediatric Quality of Life Score inclusive of the number of asthma related hospital visits, number of asthma related home visits, and/or the number of asthma related primary care visits (Bailey et al., 2009 [1a]).

SUPPORTING INFORMATION

Background/Purpose of BEST Development:

Asthma is more prevalent among minority groups and socioeconomic status has been found to be related to asthma prevalence and morbidity (Bailey et al 2009 [1a]; Beck, Simons, Huang & Kahn, 2012 [4a]; Sawyer & Shah, 2005 [5a]). Asthma outcomes can be influenced by care accessibility, social and demographic factors cultural and linguistic diversity as well as income equality (Sawyer & Shah, 2005 [5a]).

The CCHMC Asthma Homecare Program consists of three to five home visits over a two month period and is designed to review the prescribed treatment as well as provide education from a structured generic curriculum and program binder materials. The evidence was searched to determine if a culturally sensitive approach could affect program adherence and client self-management abilities in our large urban population.

Definitions:

Urban: relating to, characteristics of, or constituting a city. [Merriam Webster, n.d. [5]].

Search Strategy:

Databases: PubMed, Google Scholar, EBSCO, Medline, Cochrane

Search Terms: pediatric asthma, asthma education, asthma interventions, asthma compliance, asthma adherence, cultural barriers urban education asthma

Limits: 2002 to current

Filters: Dates, English,

Date Last Searched: 11/13/12

Relevant CCHMC Evidence-Based Documents:

List Evidence-Based Guidelines and Best Evidence Statements

Group/Team Members:

Team Leader/Author: Lenilyn King BSN, RN Home Care

Support/Consultants: Patti Besuner MN, RN EBP Mentor, Mona Mansour MD, MS Division of General & Community Pediatrics, Lisa Crosby, APN, Division of General & Community Pediatric, Susan Wade-Murphy RN, Senior Clinical Director Homecare Services

Conflicts of Interest were declared for each team member:

- No financial or intellectual conflicts of interest were found.
- No external funding was received for development of this BEST.
- The following conflicts of interest were disclosed:

Note: Full tables of the [LEGEND evidence evaluation system](#) are available in separate documents:

- [Table of Evidence Levels of Individual Studies by Domain, Study Design, & Quality](#) (abbreviated table below)
- [Grading a Body of Evidence to Answer a Clinical Question](#)
- [Judging the Strength of a Recommendation](#) (dimensions table below)

Table of Evidence Levels (see note above):

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
5	Local Consensus

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

Table of Language and Definitions for Recommendation Strength (see note above):

Language for Strength	Definition
It is strongly recommended that... It is strongly recommended that... not...	When the dimensions for judging the strength of the evidence are applied. There is high support that benefits clearly outweigh risks and burdens. (or <i>visa-versa</i> for negative recommendations)
It is recommended that... It is recommended that... not...	When the dimensions for judging the strength of the evidence are applied, there is moderate support that benefits are closely balanced with risks and burdens.
There is insufficient evidence and a lack of consensus to make a recommendation...	
<i>Given the dimensions below and that more answers to the left of the scales indicate support for a stronger recommendation, the recommendation statement above reflects the strength of the recommendation as judged by the development group. (Note that for negative recommendations, the left/right logic may be reversed for one or more dimensions.)</i>	
Rationale for judgment and selection of each dimension:	
1. Grade of the Body of Evidence	<input checked="" type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low
<i>Rationale:</i> (Bailey et al., 2009 [1a])	
2. Safety/Harm (Side Effects and Risks)	<input checked="" type="checkbox"/> Minimal <input type="checkbox"/> Moderate <input type="checkbox"/> Serious
<i>Rationale:</i> No side effects or risks [Local Consensus Home Care Asthma Program]	
3. Health Benefit to Patient	<input checked="" type="checkbox"/> Significant <input type="checkbox"/> Moderate <input type="checkbox"/> Minimal
<i>Rationale:</i> Asthma education enables patients with asthma and/or their families to better self-manage care.	
4. Burden on patient to adhere to recommendation	<input checked="" type="checkbox"/> Low <input type="checkbox"/> Unable to determine <input type="checkbox"/> High
<i>Rationale:</i> The burden to the caregiver is time and commitment to the visits and the willingness to make a change in patient lifestyle to work at managing asthma	
5. Cost-effectiveness to healthcare system	<input checked="" type="checkbox"/> Cost-effective <input type="checkbox"/> Inconclusive <input type="checkbox"/> Not cost-effective
<i>Rationale:</i> When caregivers learn asthma education and how to manage asthma, there is a reduction of ED visits and increased communication with the primary care provider (Bailey et al., 2009 [1a]).	
6. Directness of the evidence for this target population	<input checked="" type="checkbox"/> Directly relates <input type="checkbox"/> Some concern of directness <input type="checkbox"/> Indirectly relates
<i>Rationale:</i>	
7. Impact on morbidity/mortality or quality of life	<input checked="" type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low
<i>Rationale:</i> When asthma and triggers are controlled there is an increase in managing care. When there is education specified for caregivers in an urban area there can be an increased understanding on asthma health care.	

Copies of this Best Evidence Statement (BEST) and related tools (if applicable, e.g., screening tools, algorithms, etc.) are available online and may be distributed by any organization for the global purpose of improving child health outcomes.

Website address: <http://www.cincinnatichildrens.org/service/j/anderson-center/evidence-based-care/bests/>

Examples of approved uses of the BEST include the following:

- Copies may be provided to anyone involved in the organization's process for developing and implementing evidence based care;
- Hyperlinks to the CCHMC website may be placed on the organization's website;
- The BEST may be adopted or adapted for use within the organization, provided that CCHMC receives appropriate attribution on all written or electronic documents; and
- Copies may be provided to patients and the clinicians who manage their care.

Notification of CCHMC at EBDMinfo@cchmc.org for any BEST adopted, adapted, implemented, or hyperlinked by the organization is appreciated.

Please cite as: King, L., Cincinnati Children's Hospital Medical Center: Best Evidence Statement Culturally Sensitive Asthma Education, <http://www.cincinnatichildrens.org/svc/alpha/h/health-policy/best.htm>, BEST 164, pages 1-4, 4/25/13.

This Best Evidence Statement has been reviewed against quality criteria by two independent reviewers from the CCHMC Evidence Collaboration. Conflict of interest declaration forms are filed with the CCHMC EBDM group.

Once the BEST has been in place for five years, the development team reconvenes to explore the continued validity of the guideline. This phase can be initiated at any point that evidence indicates a critical change is needed. CCHMC EBDM staff performs a quarterly search for new evidence in an horizon scanning process. If new evidence arises related to this BEST, authors are contacted to evaluate and revise, if necessary.

For more information about CCHMC Best Evidence Statements and the development process, contact the Evidence Collaboration at EBDMinfo@cchmc.org.

Note

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.