GLIDES Project – Technical Expert Panel

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Alliance Overview

• HRSA funded network/collaborative of Community Health Centers
• Essentially a joint venture organizations with the desire and ability to work together on building some common infrastructure to improve service delivery and health status
• Dedication to quality and use of data to improve care
• Ability to access higher quality, efficiency and economy of scale
• Desire to ultimately share with others
11 States
30 Health Centers
148 Clinical Locations
500 Providers (MD, NP, PA, DO)

380,000 patients
1,077,257 visits
<table>
<thead>
<tr>
<th>Electronic Medical Records &amp; HIT</th>
<th>Quality Improvement &amp; Research</th>
<th>Consulting &amp; Technical Assistance</th>
<th>Technology Innovations &amp; Partnerships</th>
</tr>
</thead>
</table>

Alliance Programs
Adoption of EMR/EHR systems by office-based physicians has increased.

Figure 1. Percentage of office-based physicians with EMR/EHR systems: United States, 2001–2009, and preliminary 2010–2011

NOTES: EMR/EHR is electronic medical record/electronic health record. "Any EMR/EHR system" is a medical or health record system that is all or partially electronic (excluding systems solely for billing). Data for 2001–2007 are from the in-person National Ambulatory Medical Care Survey (NAMCS). Data for 2008–2009 are from combined files (in-person NAMCS and mail survey). Data for 2010–2011 are preliminary estimates (dashed lines) based on the mail survey only. Estimates through 2009 include additional physicians sampled from community health centers. Estimates of basic systems prior to 2006 could not be computed because some items were not collected in the survey. Data include nonfederal, office-based physicians and exclude radiologists, anesthesiologists, and pathologists.

SOURCE: CDC/NCHS, National Ambulatory Medical Care Survey.
Link between EMR Adoption and Quality

- National Practice Guidelines
- Evidence Based Guidelines
- EMR Decision Support Prompts
- Patient Care
- Clinical Screens Capture Data
- Aggregate Level Quality Reporting
- Research
- Reporting

ALLIANCE OF CHICAGO
Community Health Services, LLC
Clinical Content Development

• **Benefit**
  – Directly address **CHC needs** that affect us all
  – **Structured, standardized data mapping** for reporting needs

• **Challenge**
  – Consistently **meeting the needs** across all Alliance Health Centers
  – Keeping up with the **volume** of requests for clinical content development
Overview of GLIDES Project
Expected Outcomes

• Update EMR based CDS for Asthma Management to reflect most current NHLBI Guidelines
• Incorporate EPA standards related to collecting asthma trigger data and developing interventions, (eg, large scale education programs)
• Demonstrate the use of GLIDES based CDS Implementation Toolkit
Phase 1: Building Revised Content

• Reviewed the Asthma CDS available from GLIDES
• Incorporated GLIDES CDS into Alliance Content
• Expanded GLIDES content to include EPA Standards for documenting and managing Asthma Triggers

• Key Deliverables:
  – Revised Asthma Content
  – Documentation of the lessons learned and key challenges associated with incorporating CDS developed “externally”
Assessment of Asthma Severity

Pediatric

[Diagram showing classification of asthma severity based on symptoms and risk factors.]
### Adult Severity

**CLASSIFYING COMPONENTS OF ASTHMA SEVERITY AND INITIATING TREATMENT**

<table>
<thead>
<tr>
<th>Impairment</th>
<th>Intermittent</th>
<th>Mild</th>
<th>Persistent</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cough due to asthma</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheezing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chest tightness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shortness of breath</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nighttime awakening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interference with normal activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in school/day/week</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SABA use (not for EB)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lung Function</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal FEV1/FVC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-19 yr 85%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-39 yr 80%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-59 yr 75%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60-80 yr 70%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEV&gt;80% predict</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEV1/FVC normal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Impairment Classification:**

- 0: 1 in last year
- 1: 2 in last year
- 2: 3 in last year
- 3: >=4 in last year

**Risk Classification:**

- Asthma Severity Classification: Mild Persistent
Assessment of Asthma Control

Pediatric
# Adult Control

## Classifying Components of Asthma Control

<table>
<thead>
<tr>
<th>Impairment</th>
<th>Well Controlled</th>
<th>Not Well Controlled</th>
<th>Poorly Controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cough due to asthma</td>
<td>None</td>
<td>&lt;= 2 days/wk</td>
<td>Daily</td>
</tr>
<tr>
<td>Wheezing</td>
<td>None</td>
<td>&lt;= 2 days/wk</td>
<td>Daily</td>
</tr>
<tr>
<td>Chest tightness</td>
<td>None</td>
<td>&lt;= 2 days/wk</td>
<td>Daily</td>
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<tr>
<td>Shortness of breath</td>
<td>None</td>
<td>&lt;= 2 days/wk</td>
<td>Daily</td>
</tr>
<tr>
<td>Nighttime awakening</td>
<td>None</td>
<td>&lt;= 2 days/wk</td>
<td>Daily</td>
</tr>
<tr>
<td>Interference with normal activity Reduction in school/Play/work</td>
<td>None</td>
<td>&lt;= 2 days/wk</td>
<td>Daily</td>
</tr>
<tr>
<td>SABA use (not for EIB)</td>
<td>None</td>
<td>&lt;= 2 days/wk</td>
<td>Daily</td>
</tr>
<tr>
<td>FEV1 or peak flow</td>
<td>None</td>
<td>&gt; 80% predicted</td>
<td>&lt; 60% predicted</td>
</tr>
<tr>
<td>ACT Score</td>
<td>None</td>
<td>&lt;= 20</td>
<td>&lt;= 15</td>
</tr>
</tbody>
</table>

**Classification:** Minimal

### Risk

| Acute ER visit(s) due to asthma               | 0               | 1 in last year       | 2 in last year    | >=3 in last year |
| Hospitalizations due to asthma               | 0               | 1 in last year       | 2 in last year    | >=3 in last year |
| Exacerbations requiring oral steroids         | 0.1/year        | 1 in last year       | 2 in last year    | >=2/year         |

### Medication Adverse Effect

- Thrush
- Palpitations
- Jitterness
- Sleep Disturbances
- Decreased Growth
- Other

### Comments

- Risk Classification: Low
- Asthma Control Classification: Well Controlled
Assessment of Triggers

- Allergies:
  - Dust Mites: Yes
  - Pollen/Cut Grass/Flowers: Yes
  - Animals: Yes
  - Mice/Rats/Cockroaches: Yes
  - Indoor Mold: Yes

- Irritants:
  - Tobacco Smoke: Yes
  - Outdoor Pollution: Yes
  - Wood Smoke: Yes
  - Chalk Dust: Yes
  - Cleaning Products: Yes

Please review patients problem list for diagnosis that may impact asthma including GERD, Rhinitis, and Depression.
Asthma Assessment

Provider Assessment - Today

- Control Class: Not Well Controlled
- Impairment: Moderate
- Risk: Moderate
- Previous Step: Step 3

Decision Support - Today

- Recommend step up in therapy
- ... Regular follow up every 2 - 6 weeks ...

Intermittent Asthma

- Step 1
- Provider Assessment / Step Comments:

Preferred:
- Step 2
- Preferred: Medium-dose ICS

Preferred:
- Step 3
- Preferred: Medium-dose ICS + either LABA or Montelukast

Preferred:
- Step 4
- Preferred: High-dose ICS + either LABA or Montelukast

Preferred:
- Step 5
- Preferred: Oral systemic corticosteroids

Preferred:
- Step 6
- Preferred: High-dose ICS + either LABA or Montelukast

Alternative:
- Medium-dose ICS
Asthma Action Plan

[Diagram of Asthma Action Plan]

- **Green Zone**:
  - Peak Flow Range: More than:
  - Instructions:
    - Take controller medications as prescribed.
    - Before exercise, take 1 puffs of.
    - Avoid things that make your asthma worse.
    - Avoid tobacco smoke.
    - Ask people to smoke outside.

- **Yellow Zone**:
  - Peak Flow Range: From: To:
  - Instructions:
    - Continue taking controller medications as prescribed.
    - Add quick-relief medication: ALBUTEROL SULFATE (2.5 MG/3ML) 0.083% NEBU 2.5 mg .5cc with 3cc NS nebulized every 4 hours.
    - If you are taking your quick-relief medication more than 2 to 3 times/week, then call your provider.

- **Red Zone**:
  - Peak Flow Range: Less than:
  - Instructions:
    - Take this medication: ALBUTEROL SULFATE (2.5 MG/3ML) 0.083% NEBU 2.5 mg .5cc with 3cc NS nebulized every 4 hours.
    - Call your provider NOW.
    - Go to the nearest emergency room.
    - Call 911 if person doesn't respond to you, skin is sucked in around the neck and ribs, and/or if lips or fingernails are grey or blue.
    - Make an appointment with your primary care provider within two days of an emergency room visit or hospitalization.
Phase 2: Evaluating Results

- Conduct Usability Testing
- Incorporate SME Feedback into revised CDS
- Train Key Staff on New Asthma CDS
- Support implementation of New Asthma CDS
- Evaluate Clinician Adoption and Satisfaction with Revised CDS

Key Deliverables
- Documentation of Usability Testing Results
- Synthesize results of CDS Satisfaction survey and Adoption Measures
Thank You

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