Popularizing the ATAQ and TRACK for asthmatic youth in Hinesberg Family Practice

Mike Chung
MS3
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Burden of Asthma in the U.S.

**General**
- Worldwide: 300 million people suffer from asthma
- United States: 1 in 12 adults and 1 in 11 children
- Chronic symptoms
  - Sleep disruption
  - Physical activity restriction

**Youth**
- Healthcare + productivity costs
  - 3rd highest reason for hospital stay
  - Most frequent cause of school absenteeism

<table>
<thead>
<tr>
<th>GINA guideline (goal)</th>
<th>AIR result, % (range)</th>
<th>United States (n= 2569)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal chronic symptoms, including nocturnal symptoms</td>
<td>Symptoms in past 4 weeks</td>
<td>During the day: 61.0</td>
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<tr>
<td></td>
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<td>Night waking: 41.0</td>
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<td></td>
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<td>Exercise induced: 53.0</td>
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<td></td>
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<td>Sleep disruptions ≥1 night: 30.0</td>
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<tr>
<td>Minimal exacerbations/no emergency visits for asthma</td>
<td>Need for emergency health care in the past 12 mo</td>
<td>Hospital admission: 9.0</td>
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<td>Hospital emergency department visit: 23.0</td>
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<td></td>
<td>Unscheduled emergency visit to other health care facility: 29.0</td>
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<td></td>
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<td>Minimal need for SABA</td>
</tr>
<tr>
<td></td>
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<td>No limitation on physical activity: 36.0</td>
</tr>
</tbody>
</table>
Burden in Vermont

**General**
- Higher adult prevalence and rising
- Hospital admissions for asthma are rising

**Youth in Vermont**
- Average 1 annual emergency room visit for asthma symptoms
- ~ 1 of 5 have difficulty sleeping at least once a month
- 70% have no asthma action plan
Spirometry + ICS may be underutilized

- 2004 survey of 2500 US asthmatics
  - 57% mild to severe
  - Two thirds didn’t have spirometry in past year
  - Half never had spirometry
  - 1 of 5 on ICS
Self-assessment of asthma control is poor
## Questionnaires

<table>
<thead>
<tr>
<th>Name of test</th>
<th>Age</th>
<th>Number of items</th>
<th>Scoring</th>
<th>Recall period</th>
<th>MIDa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma Control Test (ACT)</td>
<td>adults child ≥12 years</td>
<td>5 items</td>
<td>≤19: uncontrolled asthma Range: 5–25</td>
<td>4 weeks</td>
<td>3 (adults)</td>
</tr>
<tr>
<td>Childhood Asthma Control Test (C-ACT)</td>
<td>child: 4–12 years</td>
<td>7 items: 4 child 3 parent</td>
<td>≤19: uncontrolled asthma Range: 5–27</td>
<td>4 weeks</td>
<td>2</td>
</tr>
<tr>
<td>Asthma Control Questionnaire (ACQ)</td>
<td>adults 7 items, including FEV1</td>
<td>≥1.5 uncontrolled asthma Range: 0–6</td>
<td>≤0.75 controlled asthma</td>
<td>1 week</td>
<td>0.5</td>
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<tr>
<td></td>
<td>child 6–16 years</td>
<td></td>
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</tr>
<tr>
<td>Asthma Therapy Assessment Questionnaire (ATAQ)</td>
<td>adults child 5–17 years</td>
<td>4 items</td>
<td>0: controlled asthma ≥1: uncontrolled asthma Range: 0–4</td>
<td>4 weeks</td>
<td>No MID</td>
</tr>
<tr>
<td>Test for Respiratory and Asthma Control in Kids (TRACK)</td>
<td>child &lt;5 years</td>
<td>5 items</td>
<td>&lt;80: uncontrolled asthma</td>
<td>4 weeks (oral steroid courses 12 months)</td>
<td>10</td>
</tr>
</tbody>
</table>

aMID: minimal important difference.
ATAQ

- Parent fills out for 5-17 y.o. pts
- 4 domains
  1. Asthma control
  2. Attitude and behavior
  3. Self-efficacy
  4. Patient-provider communication
- Simple yes or no questions
- Scores are consistent with:
  - Asthma-related hospitalizations
  - ER or urgent care visits
  - Primary care visits
TRACK

- Parent completes for child under age 5
- 5 questions/domains
  - Perception
  - Activity limitation
  - Night awakening
  - Use of reliever
  - Use of oral corticosteroids*
- Conforms with latest EPR-3 by NIH

* Previous exacerbations predict future ex.
Summary

- High prevalence
- High $ cost
- High quality of life cost
- Inadequate assessment
- Underestimated severity

Compromised follow-up and treatment
Thank you for your attention

- Please take 60 seconds to complete a questionnaire
References


Department of Health Vermont: [http://healthvermont.gov/research/asthma/documents/asthma_burden_report.pdf](http://healthvermont.gov/research/asthma/documents/asthma_burden_report.pdf)