What changes when guidelines are updated?

Analysis of Chronic Respiratory Disease Guideline Updates from 2000 - 2010

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Chicago, August 27, 2010
Background and Purpose

The Problem:
Keeping (our) CPGs up to date

National Disease Management Guidelines:
1-4 years for development
„Just published – already outdated?!“

We need to know:
- *when* to update
- *how* to update
Where to start?

Let’s see what other guideline groups did…

- Asthma and COPD
- 3 comprehensive guidelines per topic
- Systematically developed, evidence- and consensus-based
- Update methodology should be more or less clear
- All updates published from 2000 to 2010
# Analysed guidelines

<table>
<thead>
<tr>
<th>Guideline abbreviation</th>
<th>Reference version (t0)</th>
<th>Updates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asthma</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NAEPP/NHLBI (USA)</td>
<td>1997</td>
<td>2002, <strong>2007</strong></td>
</tr>
<tr>
<td><strong>COPD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTS (CA)</td>
<td>2003</td>
<td><strong>2007</strong></td>
</tr>
<tr>
<td>NICE (UK)</td>
<td>2004</td>
<td>2010</td>
</tr>
</tbody>
</table>

*Legend: block letters = full revision; normal lettering = Partial update*
What did we look for?

- Why were the guidelines updated?
- Which methods were used?
- Are changes transparent?
- Which changes?
- Which topics most frequently affected?
- Consistency of results across guidelines?
### Update methodology

<table>
<thead>
<tr>
<th>Guideline abbreviation</th>
<th>When and what?</th>
<th>How is relevant literature identified?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asthma</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTS/SIGN (UK)</td>
<td>- yearly</td>
<td>- key questions for topics</td>
</tr>
<tr>
<td></td>
<td>- modular</td>
<td>- systematic searches</td>
</tr>
<tr>
<td></td>
<td>- topics chosen by experts</td>
<td>- pharmacotherapy searched yearly</td>
</tr>
<tr>
<td>GINA (Int.)</td>
<td>- yearly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- sensitive literature search</td>
<td>- abstracts (and possibly full texts) reviewed by experts for impact</td>
</tr>
<tr>
<td>NAEPP/NHLBI (USA)</td>
<td>- literature monitored (no searches?)</td>
<td>- partial update: systematic search on selected topics</td>
</tr>
<tr>
<td></td>
<td>- experts decide if partial or full update needed</td>
<td>- full update: comprehensive, systematic searches on all topics</td>
</tr>
</tbody>
</table>
## Update methodology

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>COPD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTS (CA)</td>
<td>?</td>
<td>„Review Panel evaluated all papers published since original version“</td>
</tr>
<tr>
<td>GOLD (Int.)</td>
<td>See GINA</td>
<td>See GINA</td>
</tr>
<tr>
<td>NICE (UK)</td>
<td>- original lit. searches rerun after 3 years (NICE Guideline Manual 2007)  - views of healthcare professionals and patients sought</td>
<td>Scope and search questions drafted → partial update</td>
</tr>
</tbody>
</table>
How are changes indicated in guidelines?

**BTS/SIGN**

**NAEPP/NHLBI**

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**KEY DIFFERENCES FROM 1997 EXPERT PANEL REPORT**

- Evidence strengthens recommendations that reducing exposure to inhaled indoor allergens can improve asthma control and notes that a multifaceted approach is required; single steps to reduce exposure are generally ineffective.

- Formaldehyde and volatile organic compounds (VOCs) have been implicated as potential risk factors for asthma and wheezing.

- Evidence shows that influenza vaccine, while having other benefits, does not appear to reduce either the frequency or severity of asthma exacerbations during the influenza season.

- The section has been expanded to include discussion of ABPA, obesity, OSA, and stress as chronic comorbid conditions, in addition to rhinitis, sinusitis, and gastroesophageal reflux, that may interfere with asthma management.
How are changes indicated in guidelines? cont.

Summary of Major Changes

The major goal of the revision was to present information about asthma management in as comprehensive manner as possible but not in the detail that would normally be found in a textbook. Every effort has been made to select key references, although in many cases, several other publications could be cited. The document is intended to be a resource; other summary reports will be prepared, including a Pocket Guide specifically for the care of infants and young children with asthma.

GINA and GOLD

Chicago, 27th August 2010
7th International G-I-N Conference
Liat Fishman, German Agency for Quality in Medicine äzq
Abstract Submission Number 2370
1.1.2 Spirometry

1.1.2.1 Spirometry should be performed:

- at the time of diagnosis
- to reconsider the diagnosis, if patients show an exceptionally good response to treatment. [2004]

1.1.2.2 Measurement of COPD [2004]

7.10 Vaccination and anti-viral therapy

Pneumococcal vaccination and annual influenza vaccination and are recommended for patients with chronic respiratory disease by the Chief Medical Officer. The role of newer anti-viral agents in preventing or treating influenza has been looked at separately by NICE but clinical experience with these drugs is limited.

Since publication of the 2004 COPD guideline NICE have replaced:

- TA67 Flu prevention – amantadine and oseltamivir with TA158
- TA58 Flu treatment – zanamivir (review) amantadine and oseltamivir with TA168
## Types of changes - classification

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major</td>
<td>In a decision context: ≥ 1 change in therapy goal, strategy or option</td>
<td>Recommendation before: Step 2 care options: Nedocromil / cromolyn OR low-dose ICS.</td>
</tr>
<tr>
<td></td>
<td>• goal, strategy or option added</td>
<td>Step 2 care options: Preferred: Low-dose ICS. Alternative, but not preferred: Cromolyn OR LTRA</td>
</tr>
<tr>
<td></td>
<td>• goal, strategy or option removed</td>
<td>Annual influenza vaccinations are recommended for patients with persistent asthma.</td>
</tr>
<tr>
<td></td>
<td>• change in priorisation Strength ↑ or ↓</td>
<td>The Expert Panel recommends that clinicians consider inactivated influenza vaccination for patients who have asthma.</td>
</tr>
<tr>
<td></td>
<td><strong>Recommendation added</strong> or <strong>removed</strong> completely</td>
<td>Scuba diving is not recommended for patients with COPD.</td>
</tr>
<tr>
<td>Minor</td>
<td>+/- precision, change in details e.g. dosage, information added w/out change in meaning</td>
<td>Scuba diving is not generally recommended for patients with COPD. Advise people with queries to seek specialist advice.</td>
</tr>
<tr>
<td></td>
<td>Change in LoE (new references confirm rec)</td>
<td></td>
</tr>
</tbody>
</table>
Types of changes - results

Asthma guidelines

- BTS/SIGN (n=140)
- GINA (n=35)
- NAEPP/NHLBI (n=204)

- minor changes
- new rec
- relevant changes/removals

COPD guidelines

- CTS (n=34)
- GOLD (n=31)
- NICE (n=38)
Changes across topics

**Asthma guidelines**

- Other treatment: O2, Ventilation, Surgery
- Pharmacotherapy
- Prevention, Education, Non-pharmacologic management
- Diagnosis, Classification

**COPD guidelines**

- CTS (n=34)
- GOLD (n=31)
- NICE (n=38)
Discussion - Limitations

- Classification „relevant changes“ and topics subjective
- Complex recommendations
- Open for interpretative meaning
- GOLD and GINA: few explicit recommendations („should“, „recommend“)
Conclusions

So... what is the best way to update??

• All methods lead to similar results (quantitatively)

• Consider modular updates depending on research output (e.g. pharmacotherapy more often, diagnosis less often)

• Users should be able to easily identify changes

• Idea: designated expert groups for monitoring topics?
Thank you for your attention!
Questions and comments are welcome!

No conflicts of interest
Email: fishman@azq.de