Physiotherapy interventions in the BTS guidelines on the management of asthma (2011): a need for change?

Updates to the British Thoracic Society (BTS) asthma guidelines have been recently highlighted by Turner and colleagues. To our concern, the content on physiotherapy interventions has not been revised or updated since the 2006 version.

We reviewed the contents of the new BTS guidelines relevant for physiotherapists. The timescale for literature search indicates that the relevant section was last updated in February 2006, with coverage in Medline extending from 1996 to 2005.

Thus, we searched PubMed for English language papers published between January 2006 and December 2010 and found 32 indexed as randomised controlled trials. In the Cochrane Database of Systematic Reviews we found updates or revisions to all cited documents, with those updated in 2004 and 2005 and not quoted in the guideline.

A corresponding document, not referred to in the BTS guidelines, the joint BTS and the Association of Chartered Physiotherapists in Respiratory Care (ACPRC) Guidelines for the Physiotherapy Management of the Adult, Medical, Spontaneously Breathing Patient, with a section on physiotherapy interventions in adults with asthma, was published in Thorax in 2009. The authors searched multiple databases (with date limits ranging from May 2005 to January 2006) and their recommendations differ, to some extent, from those provided in the BTS guidelines. This causes some confusion as to which guidelines should be considered.

The terminology, levels of evidence and grades of recommendations for physiotherapy interventions, reported in both documents, are compared below in the table 1.

According to the BTS asthma guidelines ‘evidence that non-pharmacological management is effective can be difficult to obtain and more studies are required’. However, this statement seems to be not fully relevant in the case of physiotherapy interventions. Evidence-based practice is a priority in the development of physiotherapy. Numerous, increasingly rigorous studies have been published since the early 2000s. In 2010, 24 Cochrane reviews on non-medical management of asthma were available, including six reviews regarding physical therapies.

The updated Cochrane reviews, not reported in the BTS guideline, do not generally provide new or changed conclusions; however, it is quite debatable why the updates have not been provided in the guidelines since 2004. The PubMed search results also suggest

### Table 1: A comparison of the contents of the BTS 2011 asthma guidelines and the BTS/ACPRC 2009 guidelines, and results of our updated search

<table>
<thead>
<tr>
<th>Therapy</th>
<th>BTS/ACPRC 2009</th>
<th>BTS 2011</th>
<th>Our search results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breathing exercises in asthma</td>
<td>Classified as physiotherapy interventions</td>
<td>Classified as complementary and alternative medicines/approaches</td>
<td>Breathing exercises including yoga and the Buteyko breathing technique</td>
</tr>
<tr>
<td>Breathing exercises including yoga and the Buteyko breathing technique</td>
<td>Content and grades of recommendation</td>
<td>Content and grades of recommendation</td>
<td>No recommendation provided for other breathing exercises</td>
</tr>
<tr>
<td>Buteyko breathing technique in asthma</td>
<td>1+ B (recommendation for)</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Airway clearance techniques in asthma</td>
<td>1+ A (for breathing exercises) or B (for suitable methods)</td>
<td>A: for breathing exercises, B: for suitable methods</td>
<td>Insufficient evidence to support or refute</td>
</tr>
<tr>
<td>Airway clearance adjuncts/devices</td>
<td>Insufficient evidence to support or refute</td>
<td>Insufficient evidence to support or refute</td>
<td>Insufficient evidence to support or refute</td>
</tr>
<tr>
<td>Inspiratory muscle training in asthma</td>
<td>1+ C0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Inspiratory muscle training in asthma</td>
<td>1+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical training in asthma</td>
<td>1+ B; E; F (depending on the outcome measure; recommendation for)</td>
<td>1+ B; E; F (depending on the outcome measure; recommendation for)</td>
<td>Insufficient evidence to support or refute</td>
</tr>
<tr>
<td>Manual therapy including massage and spinal manipulation</td>
<td>Not provided</td>
<td>Not provided</td>
<td>Not provided</td>
</tr>
<tr>
<td>Physical exercise training</td>
<td>Not provided</td>
<td>Not provided</td>
<td>Not provided</td>
</tr>
<tr>
<td>Inspiratory muscle training in asthma</td>
<td>Not provided</td>
<td>Not provided</td>
<td>Not provided</td>
</tr>
<tr>
<td>Physical training in asthma</td>
<td>Not provided</td>
<td>Not provided</td>
<td>Not provided</td>
</tr>
<tr>
<td>Inspiratory muscle training in asthma</td>
<td>Not provided</td>
<td>Not provided</td>
<td>Not provided</td>
</tr>
</tbody>
</table>

ACPRC, Association of Chartered Physiotherapists in Respiratory Care; BTS, British Thoracic Society; n/p, not provided; RCT, randomised controlled trial.

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**Correspondence**

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The updated Cochrane reviews, not reported in the BTS guideline, do not generally provide new or changed conclusions; however, it is quite debatable why the updates have not been provided in the guidelines since 2004. The PubMed search results also suggest
the need for updating the guidelines, as the most recent studies cited in the guidelines are dated for the year 2003. In our view, despite the fact that its last searches were conducted up to 2006, the joint BTS/ACPRC 2009 guidelines remain in the international perspective the most reliable document for asthma physiotherapy practice.

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