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 referred to in the BTS guidelines.

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.

### 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>Terminology; intervention(s)</th>
<th>Level of evidence statements</th>
<th>Content and grades of recommendation</th>
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<th>Cochrane Database of Systematic Reviews</th>
<th>RCTs* PubMed</th>
<th>(March 2006–Dec 2010)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Classified as physiotherapy interventions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Classified as complementary and alternative medicines/approaches</td>
<td></td>
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</tr>
<tr>
<td>Breathing exercises in asthma</td>
<td>1++</td>
<td>A: for breathing exercises B: for suitable tools (e.g. anxiety measures)</td>
<td>Breathing exercises including yoga and the Buteyko breathing technique</td>
<td>n/p</td>
<td>B: for the Buteyko technique No recommendation provided for other breathing exercises</td>
<td>2004 (breathing exercises)</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Buteyko breathing technique in asthma</td>
<td>1+</td>
<td>A: for breathing exercises B (recommendation for)</td>
<td>Airway clearance adjuncts/devices†</td>
<td>n/p</td>
<td>n/p</td>
<td>n/p</td>
<td>2005</td>
<td>1</td>
</tr>
<tr>
<td>Airway clearance techniques in asthma</td>
<td>1–</td>
<td>Insufficient evidence to support or refute</td>
<td>Manual therapy including massage and spinal manipulation</td>
<td>n/p</td>
<td>n/p</td>
<td>n/p</td>
<td>2004</td>
<td>19</td>
</tr>
<tr>
<td>Airway clearance adjuncts/devices‡</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Physical training in asthma</td>
<td>1+</td>
<td>B: B: A (depending on the outcome measure; recommendation for)</td>
<td>Physical exercise training</td>
<td>n/p</td>
<td>n/p</td>
<td>n/p</td>
<td>2004</td>
<td></td>
</tr>
<tr>
<td>Inspiratory muscle training in asthma</td>
<td>1–</td>
<td>Insufficient evidence to support or refute</td>
<td></td>
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</tbody>
</table>

*SIGN (Scottish Intercollegiate Guidelines Network) key to evidence statements and grades of recommendations.

*Studies indexed as RCTs in PubMed.
†Clapping, vibrations, shaking (collectively termed manual therapies) and postural drainage, forced expiratory technique, directed coughing.
‡PEP, oscillating positive expiratory pressure devices.
ACPRC, Association of Chartered Physiotherapists in Respiratory Care; BTS, British Thoracic Society; n/p, not provided; RCT, randomised controlled trial.
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/ACFRC 2009 guidelines remain in the international perspective the most reliable document for asthma physiotherapy practice.

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