

# Supplemental Information

**SUPPLEMENTAL TABLE 4** Database Search Strategy

Database	Search
PubMed (January 3, 2015)	(odynophagia OR "anesthetic complications" OR aspiration OR "airway compromise" OR "atlantoaxial dislocation" OR bacteremia OR infection OR bleeding OR death OR dehydration OR distress OR edema OR "Eustachian tube injury" OR fever OR hemorrhage OR hemorrhage OR hypoxia OR infection OR "mandible dislocation" OR "nasopharyngeal insufficiency" OR nausea OR otalgia OR otitis OR pain OR pneumonia OR complications OR "psychological trauma" OR "pulmonary edema" OR "pulmonary embolism" OR "refusal to feed" OR "respiratory compromise" OR "respiratory problems" OR "tongue base edema" OR vomiting OR emesis OR "lethal outcome") AND (obstructive sleep apnea[MeSH Terms] OR "OSA" or "sleep apnea" or "sleep apnoea" or "sleep disordered breathing" or "SDB") AND ("T&A" or "AT" or adenoidectomy or tonsillectomy or tonsillotomy or "tonsil surgery" or adenotonsillectomy) AND Search (children OR child OR childhood OR pediatric OR pediatric OR adolescent OR adolescents OR "young patient")
Cochrane (January 3, 2015)	(children or child or childhood or pediatric or pediatric or adolescent or adolescents or "young patient") AND ("T&A" or "AT" or adenoidectomy or tonsillectomy or tonsillotomy or "tonsil surgery" or adenotonsillectomy) AND ("OSA" or "sleep apnea" or "sleep apnoea" or "sleep disordered breathing" or "SDB") AND ((odynophagia or "anesthetic complications" or aspiration or "airway compromise" or "atlantoaxial dislocation" or bacteremia or infection or bleeding or death or dehydration or distress or edema or "Eustachian tube injury" or fever or hemorrhage or hemorrhage or hypoxia or infection or "mandible dislocation" or "nasopharyngeal insufficiency") OR nausea or otalgia or otitis or pain or pneumonia or complications or "psychological trauma" or "pulmonary edema" or "pulmonary embolism" or "refusal to feed" or "respiratory compromise" or "respiratory problems" or "tongue base edema" or vomiting or emesis or "lethal outcome"))
Embase (1974–January 3, 2015)	
Medline (1948–January 3, 2015)	
Web of Science (January 3, 2015)	(odynophagia OR "anesthetic complications" OR aspiration OR "airway compromise" OR "atlantoaxial dislocation" OR bacteremia OR infection OR bleeding OR death OR dehydration OR distress OR edema OR "Eustachian tube injury" OR fever OR hemorrhage OR hemorrhage OR hypoxia OR infection OR "mandible dislocation" OR "nasopharyngeal insufficiency" OR nausea OR otalgia OR otitis OR pain OR pneumonia OR complications OR "psychological trauma" OR "pulmonary edema" OR "pulmonary embolism" OR "refusal to feed" OR "respiratory compromise" OR "respiratory problems" OR "tongue base edema" OR vomiting OR emesis OR "lethal outcome") AND TOPIC: ("OSA" or "sleep apnea" or "sleep apnoea" or "sleep disordered breathing" or "SDB") AND TOPIC: ("T&A" or "AT" or adenoidectomy or tonsillectomy or tonsillotomy or "tonsil surgery" or adenotonsillectomy) AND TOPIC: (children OR child OR childhood OR pediatric OR pediatric OR adolescent OR adolescents OR "young patient")
LILACS (January 3, 2015)	Criança or crianças or niños or niño or infancia or adolescente [Words] and "cirurgia de adenóide" or cirurgia de amígdala" or adenoidectomia or amigdalectomia or amigdalotomia or "cirugía de las amígdalas" [Words] and "apnea do sono" or distúrbios respiratórios do sono" or "apnea del sueño" [Words]
Google Scholar (January 3, 2015)	With all of the words: children With the exact phrase: sleep apnea With at least 1 of the words: adenoidectomy, tonsillectomy, tonsil surgery, adenotonsillectomy Where my words occurs: anywhere in the article 60 most relevant hits

**SUPPLEMENTAL TABLE 5** Excluded Articles With Reasons for Exclusion (*n* = 79)

Source	Final Check Reason for Exclusion
Achar et al <sup>1</sup>	5
de Alcántara et al <sup>2</sup>	1
Al-Mazrou et al <sup>3</sup>	1
Bahamonde et al <sup>4</sup>	1
Beriat <sup>5</sup>	1
Beriat <sup>6</sup>	1
Bhattacharjee et al <sup>7</sup>	1
Carr et al <sup>8</sup>	1
Chaidas et al <sup>9</sup>	1
Chang et al <sup>10</sup>	1
Chang et al <sup>11</sup>	1
Chimona et al <sup>12</sup>	1
Coticchia et al <sup>13</sup>	1
Datta et al <sup>14</sup>	1
Deak et al <sup>15</sup>	1
Densert et al <sup>16</sup>	1
Fida and Sendi <sup>17</sup>	1
Friedman et al <sup>18</sup>	1
Gerber et al <sup>19</sup>	1
Grindle et al <sup>20</sup>	1
Hack <sup>21</sup>	1
Hanss et al <sup>22</sup>	4
Horwood et al <sup>23</sup>	1
Howells et al <sup>24</sup>	5
Hultcrantz et al <sup>25</sup>	1
Hultcrantz and Ericsson <sup>26</sup>	1
Hultcrantz et al <sup>27</sup>	1
Ilgen <sup>28</sup>	1
Jones et al <sup>29</sup>	5
Kalra et al <sup>30</sup>	1
Kamal et al <sup>31</sup>	2
Kemal <sup>32</sup>	1
Koltai <sup>33</sup>	1
Konstantinopoulou et al <sup>34</sup>	5
Koomson et al <sup>35</sup>	1
Lee et al <sup>36</sup>	4
Liang et al <sup>37</sup>	4
McColley et al <sup>38</sup>	4
McCormick et al <sup>39</sup>	4
Van der Meulen <sup>40</sup>	1
Mitchell and Kelly <sup>41</sup>	4
Mixson et al <sup>42</sup>	1
Moriniere et al <sup>43</sup>	1
Paramasivan et al <sup>44</sup>	1
Peng et al <sup>45</sup>	1
Perkins et al <sup>46</sup>	4
Postma <sup>47</sup>	1
Prokopakis et al <sup>48</sup>	3
Pruegsanusak et al <sup>49</sup>	1
Rodman et al <sup>50</sup>	4
Rothschild et al <sup>51</sup>	4
Ryu et al <sup>52</sup>	1
Schroeder et al <sup>53</sup>	4
Sdralis and Berkowitz <sup>54</sup>	3
Segal et al <sup>55</sup>	1
Seth et al <sup>56</sup>	1
Shine et al <sup>57</sup>	1
Skilbeck et al <sup>58</sup>	1
Skoulakis et al <sup>59</sup>	1

**SUPPLEMENTAL TABLE 5** Continued

Source	Final Check Reason for Exclusion
Slovik et al <sup>60</sup>	4
Solares et al <sup>61</sup>	3
Sonsuwan et al <sup>62</sup>	4
Sorin et al <sup>63</sup>	5
Statham et al <sup>64</sup>	4
Subramanyam et al <sup>65</sup>	1
Tauman et al <sup>66</sup>	1
Theilhaber et al <sup>67</sup>	4
Thomas et al <sup>68</sup>	4
Thongyam et al <sup>69</sup>	4
Thottam et al <sup>70</sup>	1
Tom et al <sup>71</sup>	4
Truy et al <sup>72</sup>	4
Tweedie et al <sup>73</sup>	1
Werle et al <sup>74</sup>	4
Wilson et al <sup>75</sup>	4
Wilson et al <sup>76</sup>	1
Windfuhr et al <sup>77</sup>	3
Yilmaz et al <sup>78</sup>	4
Youshani et al <sup>79</sup>	4

1 indicates studies with different target condition; 2, studies in adults; 3, reviews, letters, conference abstracts, editorials, case-series studies; 4, studies which the sample included subjects previously diagnosed with genetic syndromic patients, coagulation disorders, or cerebral palsy; 5, studies that did not reveal specifically the 3 first weeks follow-up.

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**SUPPLEMENTAL MATERIAL: RISK OF BIAS ASSESSED BY META-ANALYSIS OF STATISTICS ASSESSMENT AND REVIEW INSTRUMENT CRITICAL APPRAISAL TOOLS. RISK OF BIAS WAS CATEGORIZED AS HIGH WHEN THE STUDY REACHES UP TO 49% SCORE “YES,” MODERATE WHEN THE STUDY REACHED 50% TO 69% SCORE “YES,” AND LOW WHEN THE STUDY REACHED MORE THAN 70% SCORE “YES.”**

**SUPPLEMENTAL TABLE 6** Experimental Studies

Question	Answer		
	Nixon et al <sup>23</sup>	Riaz et al <sup>13</sup>	Sanders et al <sup>12</sup>
1. Was the assignment to treatment groups random?	N	N	N
2. Were participants blinded to treatment allocation?	NA	NA	NA
3. Was allocation to treatment groups concealed from the allocator?	Y	U	Y
4. Were the outcomes of people who withdrew described and included in the analysis?	NA	U	Y
5. Were those assessing outcomes blind to the treatment allocation?	U	U	N
6. Were the control and treatment groups comparable at entry?	Y	Y	Y
7. Were groups treated identically other than for the named interventions?	N	Y	Y
8. Were outcomes measured in the same way for all groups?	Y	Y	Y
9. Were outcomes measured in a reliable way?	Y	Y	Y
10. Was appropriate statistical analysis used?	Y	Y	Y
% Yes/risk	50/moderate	50/moderate	70/low

N, no; NA, not applicable; U, unclear; Y, yes.

**SUPPLEMENTAL TABLE 7** Observational Studies

Question	Answer										
	Ahmad et al <sup>26</sup>	Baguley et al <sup>32</sup>	Brown <sup>24</sup>	Del-Rio Camacho et al <sup>16</sup>	Hadden et al <sup>28</sup>	Hamada et al <sup>38</sup>	Lalakea et al <sup>22</sup>	Ma et al <sup>33</sup>	Muninnobpamasa et al <sup>29</sup>	Onotai and Lilly-Tariah <sup>31</sup>	Perkins et al <sup>15</sup>
1. Was the study based on a random or pseudorandom sample?	N	N	N	N	Y	N	Y	N	N	N	N
2. Were the criteria for inclusion in the sample clearly defined?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3. Were confounding factors identified and strategies to deal with them stated?	Y	U	Y	Y	Y	Y	Y	Y	Y	U	N
4. Were outcomes assessed by using objective criteria?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5. If comparisons are being made, was there sufficient description of the groups?	NA	NA	Y	NA	Y	Y	NA	Y	NA	NA	Y
6. Was the follow-up carried out over a sufficient time period?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
7. Were the outcomes of people who withdrew described and included in the analysis?	NA	NA	Y	NA	NA	NA	Y	N	NA	NA	Y
8. Were the outcomes measured in a reliable way?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9. Was an appropriate statistical analysis used?	N	Y	Y	Y	Y	Y	N	Y	N	N	Y
% Yes/risk	55.55/moderate	55.55/moderate	88.88/low	66.66/moderate	88.88/low	77.77/low	77.77/low	77.77/low	55.55/moderate	44.44/high	77.77/low

N, no; NA, not applicable; U, unclear; Y, yes.

Rakover et al <sup>36</sup>	Ruboyanes <sup>19</sup>	Shakeel et al <sup>39</sup>	Shott et al <sup>35</sup>	Spencer and Jones <sup>30</sup>	Vlastos et al <sup>27</sup>	Wang et al <sup>25</sup>	Wong et al <sup>37</sup>	Ye et al <sup>34</sup>
N	N	N	N	N	N	N	N	N
Y	Y	Y	Y	Y	Y	U	U	Y
N	U	Y	N	N	Y	U	N	Y
Y	Y	Y	Y	Y	Y	Y	Y	Y
NA	NA	Y	NA	NA	Y	NA	NA	NA
Y	Y	Y	Y	Y	Y	Y	Y	Y
NA	NA	NA	NA	Y	N	NA	NA	NA
Y	Y	Y	Y	Y	Y	U	U	Y
N	N	Y	N	N	Y	N	N	Y
44.44 /high	44.44/high	77.77/low	44.44/high	55.55/moderate	77.77/low	22.22/high	22.22/high	66.66/moderate