# Appendix B. Scope for Key Questions and Voting Options for Technical Experts

| Domain | Key Question 1:<br>Natural History | Key Questions 2 and 3:<br>Speech/Language/Hearing | Key Question 4:<br>Diagnostic Methods |
|---|---|---|---|
| **Disease Entity** | Type of OME (self-identified but note diagnostic method)<br>• OME after AOM<br>• newly diagnosed OME, unknown duration<br>• established OME, duration weeks or months<br>• bilateral OME, duration 3 months of longer<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | All types of OME and unspecified OM as long as MEE is present<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | All type of OME and unspecified OM as long as MEE is present<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** |
| **Patient Population** | Age at diagnosis: 0-3 years old<br>Age at followup**:** through 12 years<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | Age at diagnosis: 0-3 years old<br>Age at followup: through 8 years<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | Age: 0-3 years<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** |

**Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)**

| Domain | Key Question 1:<br>Natural History | Key Questions 2 and 3:<br>Speech/Language/Hearing | Key Question 4:<br>Diagnostic Methods |
|---|---|---|---|
| **Setting** | Provider type: all<br>Time period: 1966 forward<br>Practice setting: all<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | Provider type: all<br>Time period: 1966 forward<br>Practice setting: all<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | Provider type: all<br>Time period: 1966 forward<br>Practice setting: all<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** |
| **Exclusion factors** | None<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | None<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | None<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** |
| **Intervention** | • Natural history<br>• No treatment/no intervention/placebo<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | • Treated versus not treated<br>• With or without antibiotics<br>• With or without tympanostomy tubes<br>• With or without adenoidectomy<br>• With or without tonsillectomy<br>• With or without myringotomy<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | Not applicable |

**Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)**

| Domain | Key Question 1: Natural History | Key Questions 2 and 3: Speech/Language/Hearing | Key Question 4: Diagnostic Methods |
|---|---|---|---|
| **Diagnostic Methods** | Not applicable | Not applicable | • Signs/symptoms<br>• Non-pneumatic otoscopy<br>• Pneumatic otoscopy<br>• Binocular micro-tympanoscopy<br>• Portable tympanometer<br>• Professional tympanometer<br>• Quantitative tympanometry<br>• Acoustic reflectometry<br>• Otoacoustic emissions<br>• Audiometry<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** |
| **Gold Standard** | Not applicable | Not applicable | • Tympanocentesis only<br>• MRI only<br>• Tympanocentesis or MRI<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** |

**Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)**

| Domain | Key Question 1: Natural History | Key Questions 2 and 3: Speech/Language/Hearing | Key Question 4: Diagnostic Methods |
|---|---|---|---|
| **Non-treatment factors Influencing outcomes for Key Questions 1, 2, and 3**<br><br>**OR**<br><br>**Non-condition factors Influencing diagnostic performance for Key Question 4** | Demographic<br>• age of child<br>• ethnicity/Race, Eskimo or Native American<br>• socioeconomic status<br>Environmental<br>• attendance at day care center<br>• tobacco smoke exposure<br>• season of the year<br>Symptoms/Signs<br>• laterality, unilateral versus bilateral<br>• hearing level<br>Other clinical factors<br>• duration of OME prior to intervention<br>• otitis prone[1]<br>• previous OME<br>• early onset of previous OME<br>• craniofacial anomaly<br>• immunodeficiency<br>• genetic syndrome<br>Parent/caretaker<br>• parent/caretaker availability<br>• parent/caretaker preference<br>• parent/caretaker education<br>Examiner<br>• Type of examiner (family physician, otolaryngologist, pediatrician, nurse practitioner, physician assistant, etc.)<br>• Skill to diagnose (validated examiner/observer)<br>• Setting (Public, private, PPO, HMO, etc)<br>(continued on next page) | Demographic<br>• age of child<br>• ethnicity/Race, Eskimo or Native American<br>• socioeconomic status<br>Environmental<br>• attendance at day care center<br>• tobacco smoke exposure<br>• season of the year<br>Symptoms/Signs<br>• laterality, unilateral versus bilateral<br>• hearing level<br>Other clinical factors<br>• duration of OME prior to intervention<br>• otitis prone[1]<br>• previous OME<br>• early onset of previous OME<br>• craniofacial anomaly<br>• immunodeficiency<br>• genetic syndrome<br>Parent/caretaker<br>• parent/caretaker availability<br>• parent/caretaker preference<br>• parent/caretaker education<br>Examiner<br>• Type of examiner (family physician, otolaryngologist, pediatrician, nurse practitioner, physician assistant, etc.)<br>• Skill to diagnose (validated examiner/observer)<br>• Setting (Public, private, PPO, HMO, etc)<br>(continued on next page) | Demographic<br>• age of child<br>• ethnicity/Race, Eskimo or Native American<br>• socioeconomic status<br>Environmental<br>• attendance at day care center<br>• tobacco smoke exposure<br>• not breast fed<br>Symptoms/Signs<br>• laterality, unilateral versus bilateral<br>• hearing level<br>Other clinical factors<br>• allergies<br>• inhalational general anesthetic<br>• duration of OME prior to intervention<br>• otitis prone[1]<br>• previous OME<br>• early onset of previous OME<br>• craniofacial anomaly<br>• immunodeficiency<br>• genetic syndrome<br>• adenoid hyperplasia<br><br>Examiner<br>• Type of examiner (family physician, otolaryngologist, pediatrician, nurse practitioner, physician assistant, etc.)<br>• Skill to diagnose (validated examiner/observer)<br>• Setting (Public, private, PPO, HMO, etc)<br>(continued on next page) |

**Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)**

| Domain | Key Question 1: Natural History | Key Questions 2 and 3: Speech/Language/Hearing | Key Question 4: Diagnostic Methods |
|---|---|---|---|
| **Non-treatment factors Influencing outcomes for Key Questions 1, 2, and 3**<br><br>**OR**<br><br>**Non-condition factors Influencing diagnostic performance for Key Question 4 (cont.)** | (continued from previous page)<br><br>Monitoring during episode or course of therapy<br>• When<br>• Frequency<br>• Primary person (parent or provider)<br>• Type (tympanometry, acoustic reflectometry, pneumatic otoscopy)<br><br>**Accept as written?**<br>**▯ abstain**<br>**▯ yes**<br>**▯ no, revise as follows:** | (continued from previous page)<br><br>Monitoring during episode or course of therapy<br>• When<br>• Frequency<br>• Primary person (parent or provider)<br>• Type (tympanometry, acoustic reflectometry, pneumatic otoscopy)<br><br>**Accept as written?**<br>**▯ abstain**<br>**▯ yes**<br>**▯ no, revise as follows:** | (continued from previous page)<br><br>**Accept as written?**<br>**▯ abstain**<br>**▯ yes**<br>**▯ no, revise as follows:** |
| **Outcome Measures** | • Partial OME resolution<br>• Complete OME resolution<br>• Relapse<br>• Recurrence<br><br>**Accept as written?**<br>**▯ abstain**<br>**▯ yes**<br>**▯ no, revise as follows:** | • Hearing levels<br>• Speech<br>• Language<br><br>**Accept as written?**<br>**▯ abstain**<br>**▯ yes**<br>**▯ no, revise as follows:** | • Sensitivity<br>• Specificity<br>• Positive predictive value<br>• Negative predictive value<br><br>**Accept as written?**<br>**▯ abstain**<br>**▯ yes**<br>**▯ no, revise as follows:** |

**Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)**

| Domain | Key Question 1:<br>Natural History | Key Questions 2 and 3:<br>Speech/Language/Hearing | Key Question 4:<br>Diagnostic Methods |
|---|---|---|---|
| **Literature Source** | • MEDLINE<br>• EMBASE<br>• Cochrane Library<br>• References from reference lists<br>• References from Technical Expert Panel and Peer Reviewers<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | • MEDLINE<br>• EMBASE<br>• Cochrane Library<br>• References from reference lists<br>• References from Technical Expert Panel and Peer Reviewers<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | • MEDLINE<br>• EMBASE<br>• Cochrane Library<br>• References from reference lists<br>• References from Technical Expert Panel and Peer Reviewers<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** |
| **Language** | • English language exclusively<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | • English language exclusively<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | • English language exclusively<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** |
| **Study Design** | • Randomized Controlled Trials, blinded and unblinded<br>• Non-randomized Controlled Trials, blinded and unblinded<br>• Prospective Cohort Studies<br>• Retrospective Cohort Studies<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | • Randomized Controlled Trials, blinded and unblinded<br>• Non-randomized Controlled Trials, blinded and unblinded<br><br>• Prospective Cohort Studies<br>• Retrospective Cohort Studies<br>• Case-Control Studies<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** | • Diagnostic Studies<br><br>**Accept as written?**<br>**☐ abstain**<br>**☐ yes**<br>**☐ no, revise as follows:** |

**Appendix B. Scope for Key Questions and Voting Options for Technical Experts (Continued)**

| Domain | Key Question 1:<br>Natural History | Key Questions 2 and 3:<br>Speech/Language/Hearing | Key Question 4:<br>Diagnostic Methods |
|---|---|---|---|
| Wording of Key Questions<br>(see Causal Pathways) | Accept as written?<br>☐ abstain<br>☐ yes<br>☐ no, revise as follows: | Accept as written?<br>☐ abstain<br>☐ yes<br>☐ no, revise as follows: | Accept as written?<br>☐ abstain<br>☐ yes<br>☐ no, revise as follows: |
| Key words for literature search | | | |
| Other items for consideration/<br>Specific references/studies | | | |