Appendix F. Experts' Opinion on Influence of Non-Condition Factors on Outcomes

Key Question 1: Natural History of OME

Non-treatment factors Influencing outcomes for Key Question 1	**Does this factor influence the natural history of OME? 1=yes, 0=no, 9=don't know**												**Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank**											
Expert number (randomly assigned)*	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Demographic																								
age of child	1	1	1	1	1	1	9	9	1	1	9	1	5	2	7	3	2	7	-9	-9	3	4	-9	3
gender	1	0	0	0	0	9	0	9	1	1[h]	9	1	3	1	-9	3	2	1	-9	-9	3	4	-9	3
ethnicity/Race	9	1	9	1	1	0	1	9	1	1	9	1	3[a]	2	-9	3	3	7	-9	-9	3	7	-9	3
socioeconomic status	1	0	1	9	9	1	0	9	1	1	9	0	5	1	6	-9	-9	7	-9	-9	3	7	-9	2
Environmental																								
# hours attending child care	1	1	1	1	1	1	0	-9	1[d]	1	1	1	3	3	3	3	3	7	-9	-9	3	7	1	3
center	9	1	1	1	1	1	1	1	9	1	1	1	3[b]	3	3	3	2	7	-9	2	3	7	3	3
tobacco smoke exposure	1	1	1	1	9	1	1	1	1	0	1	1	5	2	3	3	-9	7	-9	2	3	5	2	3
season of the year	1	0	1	1	1	0	0	9	1	1	1	1	3	1	2	3	3	1	-9	-9	3	-9	2	2
number of children in household	1	1	1	1	1	1	0	9	1	1	1	1	3	2	3	3	2	7	-9	-9	3	-9	2	3
not breast-fed	9	1	1	1	1	1	9	9	9	9	1	0	9[c]	2	2	3	2	1	-9	-9	-9	-9	1	2
barotrauma challenges																								
Symptoms/Signs																								
laterality, unilateral versus	1	0	0	1	9	1	0	9	1	0	9	9	5	1	2	3	1	7	-9	-9	3	-9	-9	-9
bilateral	0	0	0	0	0	0	0	9	1	0	9	9	2	2	2	2	2	1	-9	-9	3	-9	-9	-9
hearing level, conductive vs sensorineural																								
Other clinical factors																								
total duration of OME (>=3	1	1	1	1	1	1	1	9	1	1	1	1	2	3	7	3	3	7	-9	-9	3	5	3	3
mos)	1	1	1	1	1	1	1	9	1	1	9	1	3	2	5	3	3	7	-9	-9	3	5	-9	3
age at first OM	9	1	0	9	9	9	1	9	1	9	9	1	9	2	5	-9	-9	1	-9	-9	3	-9	-9	3
age of onset of previous OME	1	1	1	1	9	1	1	9	1	1	1	1	2	2	4	1	-9	7	-9	-9	3	5	2	3
number of previous OMEs	1	1	0	1	1	1	0	9	1	1	9	1	5	2	2	3	2	7	-9	-9	3	3	-9	3
family history of OME	1	1	1	1	1	1	0	9	1	1	1	1	2	4	4	3	2	7	-9	-9	3	-9	1	3
otitis prone (AOM)	1	1	1	9	1	1	1	9	9	1	1	1	1	4	7	-9	2	7	-9	-9	3	3	2	3
allergies	9	1	1	1	1	0	1	9	9	1	1	1	9	4	4	1	2	1	-9	-9	3	5	1	3
prior tubes	1	1	1	0	9	1	1	9	9	9	9	1	3	3	4	1	-9	5	-9	-9	3	-9	-9	3
prior adenoidectomy	0	0	9	0	9	0	0	0	9[e]	0	9	0	2	4	-9	2	-9	1	-9	2	-9	4	-9	2
developmental delay																								
Parent/caretaker																								
parent/caregiver preference for	0	9	9	0	9	0	0	0	9	1	9	0	2	-9	2	2	-9	1	-9	3	1	4	-9	2
tx	0	9	0	0	9	0	0	9	9	9	1	0	2	-9	2	2	-9	1	-9	-9	1	-9	2	2
parent/caregiver education																								
Examiner																								
Skill to diagnose (validated)	0	1	9	0	0	1	1	0	9	9	9	1	2	4	2	2	2	2	-9	2	1	-9	-9	3
Type of examiner	0	1	0	0	0	1	0	0	9	9	9	9	2	1	2	2	2	2	-9	4	1	-9	-9	-9
Setting (Public,private,PPO,HMO)	0	1	0	0	0	0	0	0	9	9	0	9	2	1	2	2	2	1	-9	2	1	-9	2	-9

Appendix F. (Continued)

Non-treatment factors Influencing outcomes for Key Question 1	Does this factor influence the natural history of OME? 1=yes, 0=no, 9=don't know												Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank											
Monitoring during course of illness	0	1	-9	0	9	0	0	0	9[f]	9	1	1	2	5	-9	2	-9	1	-9	2	-9	-9	2	3
When	0	1	-9	0	9	0	0	0	9[f]	9	1	0	2	4	-9	2	-9	1	-9	2	-9	-9	2	2
Frequency	0	9	0	0	9	0	0	0	9[f]	9	1	1	2	-9	2	2	-9	1	-9	2	-9	-9	2	2
Primary provider																								
Type of monitoring method																								
tympanometry	0	0	0	0	1	0	1	0	9[f]	9	1	1	2	2	2	2	2	1	-9	2	-9	-9	1	3
acoustic reflectometry	0	0	0	0	9	0	9	0	9[f]	9	1	1	2	2	2	2	-9	1	-9	2	-9	-9	2	3
ototscopy	0	0	0	0	9	0	0	0	9[f]	9	1	0	2	2	2	2	-9	1	-9	2	-9	-9	1	3
pneumatic otoscopy	0	0	0	0	9	0	0	0	9[f]	9	1	1	2	2	2	2	-9	1	-9	2	-9	-9	1	3
MRI	0	0	0	0	9	0	1	0	9[f]	9	1	9	2	2	2	2	-9	1	-9	2	-9	-9	3	-9

***** Experts 1-11 are members of the technical expert panel; Expert 12 is an internal expert.
[a] may be higher in Inuit, Native American; may be SES [b] fellow traveler with low SES [c] not important
[d] size of child care center? [e] If head/neck syndrome, then yes [f] don't understand how these relate to natural history
[h] variable

Appendix F. (Continued)

Key Questions 2: Speech and Language Development

Non-treatment or non-condition factors Influencing outcomes for Key Questions 2	**Does this factor have an independent effect on speech and language development separate from its effects on OME or unspecified OM? 1=yes, 0=no, 9=don't know**												**Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank**											
Expert number (randomly assigned)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Demographic																								
age at first OM	0	0	0	0	0	1	0	9	9	9	9	9	2	2	2	1	2	1	-9	-9	3	-9	-9	1
gender	1	1	0	1	0	1	0	9	9	1	9	1	3	3	2	2	2	1	-9	-9	3	6	-9	1
ethnicity/race	0	9	0	1	0	0	1	9	9	1	9	9	2	1	2	2	2	1	-9	-9	3	6	-9	1
socioeconomic status	1	9	0	0	1	1	1	1	1	1	9	1	3	2	2	3	3	1	-9	2	3	7	-9	1
Environmental																								
# hours attending child care	9	1	0	0	9	1	1	9	9	1	9	1	-9	2	2	2	-9	1	-9	-9	3	6	-9	1
center	1	1	0	1	1	1	1	1	1	1	9	1	2	2	2	3	1	1	-9	3	3	6	-9	1
quality of child care	9	1	0	1	1	1	1	9	1	1	9	0	-9	2	2	2	1	2	-9	-9	1	6	-9	1
early intervention program	0	0	0	0	0	1	0	9	0	0	1	1	2	2	2	1	3	2	-9	-9	2	-9	1	1
tobacco smoke exposure	0	1	0	0	1	1	1	9	9	0	1	1	2	1	2	1	3	1	-9	-9	3	-9	1	1
number of children in household	0	0	0	0	0	1	0	9	9	0	9	9	2	2	2	1	2	1	-9	-9	3	-9	-9	1
not breast-fed																								
Symptoms/Signs																								
laterality, unilateral vs bilateral	9[a]	0	1	1	1	1	1	1	9	-9	1	1	-9	2	7	3	2	2	-9	3	3	-9	1	1
hearing level, conductive vs sensorineural	1	1	1	1	1	1	1	9	1	1	9	1	3[d]	3	7	3	2	5	-9	-9	3	6	-9	1
Other clinical factors																								
total duration of OME (>=3 mos)	9	0	0	0	1	1	1	9	1	1	1	1	-9	2	2	-9	2	1	-9	-9	3	2	1	1
number of previous OMEs	9	0	0	0	0	1	1	9	9	1	9	1	-9	2	2	-9	2	1	-9	-9	3	2	-9	1
duration of MEE	9	0	0	0	1	1	1	9	1	1	1	9	-9	2	2	-9	2	1	-9	-9	3	3	1	1
allergies	0	0	0	0	0	0	9	9	9	0	1	1	-9	2	2	-9	1	1	-9	-9	3	6	1	1
developmental delay	1	1	1	1	1	1	1	1	1	1	9	1	-	3	7	1	3	1	-9	3	3	7	-9	1
OM complications	9[b]	1	0	0	1	9	0	1	9	0	9	9	9[e]	2	2	2	3	1	-9	3	3	-9	-9	1
chronic illness of any type	9[c]	1	1	9	1	1	1	1	9	0	9	-9	-9	2	4	2	1	1	-9	3	3	-9	-9	1
													-9											
Parent/caretaker																								
parent/caregiver education	1	1	0	1	1	1	1	1	1	1	9	1	3	2	2	3	3	1	-9	3	3	3	-9	1
quality of parent-child interaction	1	1	0	1	1	1	1	1	1	1	9	1	2	2	2	3	3	1	-9	3	3	3	-9	1

Appendix F. (Continued)

Non-treatment or non-condition factors Influencing outcomes for Key Questions 2	Does this factor have an independent effect on speech and language development separate from its effects on OME or unspecified OM? 1=yes, 0=no, 9=don't know												Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank											
Examiner																								
skill to diagnose (validated)	0	0	0	0	0	0	0	0	0	0	9	1	2	2	2	1	1	1	-9	2	2	1	-9	1
type of examiner	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	1	1	-9	2	2	1	-9	1
setting (Public,private,PPO,HMO)	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	1	1	-9	2	2	1	-9	1
Monitoring																								
recheck times	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1
frequency of recheck	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1
primary provider	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1
ambient noise	0	0	0	0	0	1	0	9	0	0	9	1	2	2	2	1	2	1	-9	-9	2	1	-9	1
child temperament	0	0	0	0	0	1	0	1	9	9	9	1	2	2	2	1	2	1	-9	1	1	1	-9	1
presence of active ear disease	1	0	0	0	1	1	0	9	9	0	9	1	1[f]	2	2	1	1	2	-9	-9	1	1	-9	1
Monitoring method																								
tympanometry	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1
acoustic reflectometry	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1
pneumatic otoscopy	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1
MRI	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1
equipment to measure auditory brainstem responses/brainstem auditory evoked responses audiometry)	0	0	0	0	0	0	0	0	0	0	9	9	2	2	2	1	2	1	-9	2	2	1	-9	1

[a] question too vague, how long? [b] depends on hearing; [c] too vague-what kind of illness at what age?
[d] if hearing deficit severe or prolonged; [e] by definition; [f] would depend on duration and age

Appendix F. (Continued)

Key Questions 3: Long-term Hearing Loss

Non-treatment or non-condition factors Influencing outcomes for Key Questions 3	**Does this factor have an independent effect on long-term hearing separate from its effects on OME or unspecified OM?** [k] **1=yes, 0=no, 9=don't know**												**Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank**											
Expert number (randomly assigned)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Demographic																								
age at first OM	0	0	0	0	0	1	0	0	9	0	9	0	2	2	4	1	4	1	-9	-9	1	1	-9	1
gender	0	0	0	0	0	0	0	9	9	0	9	9	2	2	2	1	4	1	-9	-9	1	3	-9	1
ethnicity/race	0	0	0	0	0	1	0	9	9	0	9	9	2	2	2	1	4	1	-9	-9	1	3	-9	1
socioeconomic status	0	0	0	0	1	0	0	0	9	0	9	9	2	2	2	1	3	1	-9	2	1	3	-9	1
Environmental																								
# hours attending child care	0	0	0	0	0	0	0	9	9	0	9	0	2	2	2	1	4	1	-9	-9	1	2	-9	1
center	0	0	0	0	0	0	0	1	9	0	9	0	2	2	2	1	4	1	-9	3	1	2	-9	1
quality of child care	0	0	0	0	0	0	0	0	9	0	9	1	2	2	2	1	4	1	-9	2	1	2	-9	1
early intervention program	0	9	0	0	0	0	0	9	9	9	1	9	2	1	2	1	4	1	-9	-9	1	1	1	1
tobacco smoke exposure	0	0	0	0	0	0	0	9	9	0	1	0	2	2	2	1	4	1	-9	-9	1	1	1	1
number of children in household	0	0	0	0	0	0	0	9	9	0	9	9	2	2	2	1	4	1	-9	-9	1	1	-9	1
not breast-fed																								
Symptoms/Signs																								
laterality, unilateral vs bilateral	-9[a]	0	1	0	0	0	1	1	1	1	1	1	-9	2	2	1	2	1	-9	3	3	3	1	1
hearing level, conductive vs sensorineural	-9[a]	1	1	0	0	0	1	1	1	1	9	1	-9	2	6	1	2	1	-9	3	3	3	-9	1
Other clinical factors																								
total duration of OME (>=3 mos)	9	0	0	0	0	0	0	9	1	1	1	1	-9	2	2	1	2	1	-9	-9	3	1	1	1
number of previous OMEs	9	0	0	0	0	0	0	9	1	1	9	1	-9	2	2	1	2	1	-9	-9	3	1	-9	1
duration of MEE	9	0	0	0	0	0	0	9	1	1	9	1	-9	2	2	1	2	1	-9	-9	3	1	-9	1
allergies	0	0	1	0	0	0	9	9	9	0	1	0	2	2	4	1	2	1	-9	-9	3	-9	1	1
developmental delay	-9	1	1	9	0	0	1	1	1	0	9	1	-9	2	7	1	2	1	-9	3	3	3	-9	1
OM complications	1	1	1	1	1	0	1	1	1	1	9	1	3	2	7	3	4	1	-9	3	3	3	-9	1
chronic illness of any type	0	0	1	9	0	0	1	9	1	0	9	9	2	2	4	1	2	1	-9	-9	3	1	-9	1
Parent/caretaker																								
parent/caregiver education	0	0	0	0	0	0	0	0	9	0	9	0	2	2	2	1	2	1	-9	3	2	1	-9	1
quality of parent-child interaction	0	0	0	0	0	0	0	0	9	0	9	0	2	2	2	1	2	1	-9	3	2	1	-9	1

Appendix F. (Continued)

Non-treatment or non-condition factors Influencing outcomes for Key Questions 3	Does this factor have an independent effect on long-term hearing separate from its effects on OME or unspecified OM? [k] 1=yes, 0=no, 9=don't know												Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank											
Examiner																								
skill to diagnose (validated)	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	2	1	-9	1
type of examiner	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	2	1	-9	1
setting (Public,private,PPO,HMO)	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	2	1	-9	1
Monitoring																								
recheck times	0	0	0	0	0	0	0	0	9	0	9	0	2	2	2	1	2	1	-9	2	2	1	-9	1
frequency of recheck	0	0	0	0	0	0	0	0	9	0	9	0	2	2	2	1	2	1	-9	2	2	1	-9	1
primary provider	0	0	0	0	0	0	0	0	9	0	9	0	2	2	2	1	2	1	-9	2	2	1	-9	1
ambient noise	0	1	1	0	0	1	0	9	0	0	9	9	2	3	7	1	2	1	-9	-9	2	1	-9	1
child temperament	0	0	0	0	0	0	0	0	0	0	1	0	2	2	4	1	2	1	-9	2	2	1	1	1
presence of active ear disease	9[b]	0	1	0	1	0	0	1	1	1	9	1	-9	2	2	1	3	1	-9	3	1	3	-9	1
Monitoring method																								
tympanometry	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	1	1	-9	1
acoustic reflectometry	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	1	1	-9	1
pneumatic otoscopy	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	1	1	-9	1
MRI	0	0	0	0	0	0	0	0	0	0	9	0	2	2	2	1	2	1	-9	3	1	1	-9	1
equipment to measure auditory brainstem responses/brainstem auditory evoked responses audiometry)	0	0	0	0	0	0	0	0	0	1	9	0	2	2	2	1	2	1	-9	3	1	3	-9	1

[a] questions need to be rephrased; [b] question illogical.

Appendix F. (Continued)

Key Question 4: Accuracy of Diagnostic Methods

Non-treatment or non-condition factors Influencing outcomes for Key Question 4	**Does this factor have an independent effect on the accuracy of a diagnostic method separate from its effects on OME or unspecified OM? 1=yes, 0=no, 9=don't know,-9=blank**												**Basis of the opinion 1=j/e; 2=tc; 3=lit; 4=1+2; 5=1+3; 6=2+3; 7=1+2+3; -9=blank**											
Expert number (randomly assigned)*	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Demographic																								
age of child	1	1	1	1	1	1	1	1	1	1	1	1	1	7	4	3	2	4	-9	1	4	1	2	2
Symptoms/Signs																								
laterality, unilateral versus bilateral	0	1	1	0	1	1	0	0	0	9	1	0	2	4	4	2	2	4	-9	3	2	-9	1	2
Other clinical factors																								
age at first OM	0	1	1	0	0	1	0	1	1	0	9	1	2	4	4	2	2	1	-9	1	4	-9	-9	3
anesthetic	0	1	9	1	1	1	0	1	9	0	9	1	2	4	-9	1	2	1	-9	3	-9	-9	-9	3
developmental delay	0	1	1	1[m]	9	0	0	0	9	1	9	9	2	4	4	1	-9	4	-9	1	-9	1	-9	-9
Type of examiner																								
family physician	-9[l]	1	0	1	0	1	0	1	1	9	9	9	-9	1	2	1	2	1	-9	1	4	-9	-9	-9
otolaryngologist	-9[l]	1	0	1	0	1	1	1	1	9	9	9	-9	4	2	1	2	1	-9	3	4	-9	-9	-9
pediatrician	-9[l]	1	0	1	0	1	0	1	1	9	9	9	-9	1	2	1	2	1	-9	1	4	-9	-9	-9
nurse practitioner	-9[l]	1	0	1	0	1	0	1	1	9	9	9	-9	1	2	1	2	1	-9	1	4	-9	-9	-9
physician assistant	-9[l]	1	0	1	0	1	0	9	1	9	9	9	-9	1	2	1	2	1	-9	-9	1	-9	-9	-9
others	-9[l]	1	0	1	0	-9	0	9	1[n]	9	9	9	-9	1	2	1	2	-9	-9	-9	1	-9	-9	-9

* Experts 1-11 are members of the technical expert panel; Expert 12 is an internal expert.

[l] Wrong question – ability of each of these may vary depending on training, skill, and experience. Eg. some nurse practitioners are better at diagnosis than some otolaryngologists-but one would not generalize from this.

[m] real issue is 'child cooperation or anxiety'

[n] audiologist