Mechanical or functional obstruction of the eustachian tube causes accumulation of secretions in the middle ear. Intrinsic obstruction can be caused by infection or allergy; extrinsic obstruction is usually a result of enlarged adenoids or nasopharyngeal tumors. When the passage is not totally obstructed, contamination of the middle ear can take place by reflux, aspiration, or insufflation during crying, sneezing, nose blowing, and swallowing when the nose is obstructed.

Diagnostic Evaluation

Careful assessment of tympanic membrane mobility with a pneumatic otoscope is essential to differentiate AOM from OME (Lieberthal, Carroll, Chonmaitree, et al, 2013). A diagnosis of AOM is made if visual inspection of the tympanic membrane reveals a purulent discolored effusion and a bulging or full, opacified, or reddened immobile membrane. Some practitioners also consider the presence of acute onset of less than 48 hours of ear pain with the aforementioned criteria to be a diagnostic factor in AOM. An immobile tympanic membrane or an orange, discolored membrane indicates OME. Clinical symptoms of otitis are also helpful in making the diagnosis (Box 21-6). In AOM, symptoms such as acute onset of ear pain, fever, and a bulging yellow or red tympanic membrane are usually present. In OME, these symptoms may be absent, and other nonspecific symptoms such as rhinitis, cough, or diarrhea are often present. Several tests provide an assessment of mobility of the tympanic membrane (see Chapter 4).

Box 21-6

Clinical Manifestations of Otitis Media

Acute Otitis Media

Follows an upper respiratory tract infection

Otalgia (earache)

Fever—may or may not be present

Purulent discharge (otorrhea)—may or may not be present