OBJECTIVES
The aim of this study is to evaluate the outcomes in infants who were found to have mild or moderate hearing loss and middle ear effusion after failing screening, and to review the course of otitis media with effusion (OME) in children under one year of age with close follow-up.
• The prevalence of OME in «fail» babies,
• The degree of hearing loss among infants who have OME,
• The final hearing status in infants with OME in follow up,
• The evolution and treatment course of OME is presented.
Regular hearing evaluation is necessary, as presence of effusion in middle ear in infants who fails hearing screening does not rule out a sensorineural hearing loss.

RESULTS
71 infants who failed newborn hearing screening were found to have mild or moderate hearing loss and flat 1000Hz tympanogram. In a total number of 63 infants (41 males, 22 females) reviewed hearing loss was unilateral in 12 infants (19%, 9 left ear, 3 right ear) and bilateral in 51 infants (80.9%). Mean age at first diagnosis of OME and hearing loss was 2.6 months. Mean age at the time of diagnostic ABR was 4.4 months. Mean ABR threshold was 33.9 dB nHL. 14 infants underwent second ABR. Mean age at diagnosis was 3.2 months. Mean age for final diagnosis was 14.9 months. Re-evaluation of hearing had been done after ventilation tube and two infants were found to have sensorineural hearing loss after effusion resolved.

CONCLUSION
• Although otitis media with effusion (OME) is a common cause for failing newborn hearing screening, mild or moderate hearing loss could not solely be attributed to OME.
• Guidelines for OME treatment especially in infants are being and will be changed in the future. Former studies showed that OME resolves in the majority of infants, therefore the author prefers to wait until 12 months of age before deciding for VT.
• Treatment should be planned on an individualized basis.
• After insertion of tympanostomy tubes re-assessment of hearing is necessary. During this period, although watchful waiting is recommended in guidelines for older children, a regular follow-up of hearing and personalized treatment will help.

METHODS
Between May 2015-May 2018, 7143 babies were screened with TEOAE&AABR device (Madsen Accuscreen), in 71 babies who failed, mild or moderate hearing loss and OME detected with diagnostic ABR and 1000Hz tympanometry. Patients were followed up every two-month until one year of age or less in case OME had resolved. Otophysiological examination was routinely performed by the otolaryngologist at every control. The exclusion criteria were cleft palate, Down’s syndrome, cerebral palsy or craniofacial abnormalities. Proper breast- or bottle-feeding and nasal hygiene were recommended. Antibiotics were given only if there is bulging or hyperemic tympanic membrane. Normal hearing is defined as ABR thresholds of 25 dB nHL or less during sedated sleep (Navigator Pro, Bio-Logics) and/or presence of OAEs during follow-up after OME resolution also checked with tympanometry.

DISCUSSION
Although OME mostly causes conductive hearing loss, it could also mask sensorineural hearing loss at the neonatal hearing screening. While studies revealed that OME resolves in majority of infants, the author prefers to wait until 12 months of age for VT. Treatment should be planned on individualized basis. Insertion of VTs facilitate better assessment of hearing in children with severe hearing loss or family history of congenital SNHL or another at-risk status. Close and regular follow-up is recommended for all infants with OME.

REFERENCES