

Impedance Bridge (Tympanometer) As a Screening Device in Schools

STATEMENT OF PROBLEM

There is confusion in schools about the proper use of the impedance bridge. Some groups recommend its use as a substitute for audiometry and suggest physician referral on the basis of an abnormal tympanogram. In our opinion this is inappropriate.

BACKGROUND

The impedance bridge primarily detects asymptomatic middle ear effusion. This effusion may cause a conductive hearing loss (rarely greater than 20 to 30 dB). There is no consensus as to the advisability of treating this effusion, because it usually remits spontaneously within 2 to 3 months.

RECOMMENDATIONS

The Committee on School Health recommends that (1) the impedance bridge should not be used in mass screening programs for the detection of hearing loss or middle ear effusion; (2) the impedance bridge may be used in the school setting only as an aid in the diagnosis of individual children who are at high risk for, or who are suspected of having, otitis media with effusion; (3) hearing

screening by pure-tone audiometry be used as the primary method of detection of hearing loss in school children; (4) the impedance bridge not be used as a replacement for audiometric screening, because it will not detect sensory neural hearing loss and may lead to overreferral of children with asymptomatic middle ear effusion; (5) any persistent abnormality detected by either the impedance bridge or pure-tone audiometry should result in a prompt referral to the child's pediatrician.

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This statement has been approved by the Council on Child and Adolescent Health.

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