



Prevention in children and adolescents AEPap/PAPPS

Hearing screening

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How to cite: Jaime García Aguado. Hearing screening. In Recommendations PreInfad/PAPPS [online]. Updated May 2018. [consulted DD-MM-AAAA]. Available in <http://previnfad.aepap.org/recomendacion-en/hipoacusia-enrec>

RECOMMENDATIONS

Incidence of moderate to severe bilateral hearing impairment in newborns is 1-2 per 1000. In absence of screening, the median average age of congenital hearing impairment is at about 2-3 years of age. Screening focused in population at risk only identifies 50-60% of newborns with hearing impairment.

There are no clinical trials comparing universal newborn hearing screening versus screening in case of risk factors or versus no screening, therefore there is no direct evidence on the benefits of screening.

In terms of indirect evidence, universal screening programs have a fair sensitivity, specificity and referral rates. There is strong evidence that universal neonatal screening significantly advances the age of diagnosis and the age of the intervention for permanent hearing impairment and it allows confirmation of the diagnosis before the six months of life. Early detection and treatment of hearing impairment in infants and toddlers can improve school and language performance. Nevertheless, evidence on benefits of early diagnosis of permanent hearing impairment is contradictory. In a whole, there is a tendency to get a positive outcome, especially in most severe hearing impairment, although frequently follow up stops at school age. Universal neonatal hearing screening is well accepted by families. Evidence on adverse effects of early treatment is scarce. In conclusion, it is suggested to do universal neonatal hearing screening due to the consideration that it may produce a net benefit. It is of the outmost importance that screening programs have established quality control follow up allowing its periodical evaluation and improving strategies.

After the neonatal period, evidence supports the follow up of children at risk in order to detect hearing impairment of postnatal start. At school age, there is clear predominance of mild and transient conduction hearing impairment over permanent hearing impairment. Hearing screening at 4-5 years old is unlikely to be effective in improving the number of cases of identified or to reduce the mean age of identification, so it is unlikely to be a good option in terms of benefit.

Prevnfad recommendations

Neonatal screening

We suggest doing universal neonatal hearing screening (weak in favor).

Postnatal screening

We suggest doing follow up of children at risk (weak in favor).

We suggest not doing hearing screening at school age (weak against).