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Unilateral vs bilateral evaluation of speech recognition in CI candidates

Indication criteria for cochlear implantation vary greatly from country to country. In practice, the assessment of aided speech intelligibility is often carried out in both ears and not separated from each other.
In this retrospective study, we analysed a very large clinical audiological database comprising pure-tone thresholds and speech-audiometric data in order to identify cochlear implant (CI) candidates on the basis of different audiometric candidacy criteria. Mean aided monosyllabic intelligibility was estimated based on the results of previous studies. Based on this, the influence on the number of cases was simulated for different indication criteria from different countries.
The bilateral evaluation of CI candidacy has the strongest influence on the number of potential CI candidates. The indication criteria for middle ear implants also have a major influence on the number of CI candidates.
Expanding the CI indication criteria opens up the possibility of improving the accurate identification of individual cases that are suitable for cochlear implant provision.