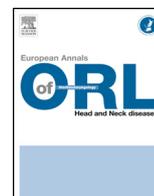




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## Editorial

# Statistics make their “official entry” in the *European Annals of Otorhinolaryngology Head & Neck Diseases*



At the turn of this century, the number of published medical articles was growing at an unprecedented rate, while scientific publishing and the scientific medical press were undergoing transformation. In 2017, Van Noorden et al. [1] reported that, between 1990 and 2015, 35 million biomedical articles had been published, just in the Web of Science database. At the same time, in 2016, a study of articles appearing in the *Journal of the American Medical Association* (JAMA) between 1990 and 2015 found that 54.8% of randomized trials, 38.9% of clinical trials and 35.7% of meta-analyses were quoting p-values in their Abstracts, and that rates were increasing regularly [2].

The multiplication of available data is a reflection of the progression and vitality of medical knowledge and the growing use of statistics bears witness to the rigor of the research undertaken: there is nothing to complain about in these trends, which are welcome to any scientific way of thinking.

The reality, however, is sadly far from being quite as “positive”. Most of the science that gets published does not actually get read: 27% of articles in the Web of Science are never cited or else cited only once [2]. At the same time, while 96% of p-values quoted in scientific articles are claimed to be “statistically significant”, their reproducibility is another matter entirely [1–3]. While in France the Conference of Medical and Odontology Deans signed a good-practice charter calling for strengthening of the redactional and ethical criteria of scientific articles, the American Statistical Association spotlighted a perversion of statistics by biomedical researchers and launched a campaign to have the significance threshold shifted from  $P=0.05$  to 0.005 [4,5].

Very much aware of what is at stake in these developments, the Editors of the *European Annals of Otorhinolaryngology Head & Neck Diseases*, in consultation with the Administrative Board of the French Society of Otorhinolaryngology, have taken two steps:

- firstly, to set up, in the Editorial Committee, a post of Statistics Editor, whose opinion, honed by his or her specific training, can assess the real significance of the data provided by authors [6];

- secondly, to recast the Instructions to Authors to include a link to the main recommendations to be found on the EQUATOR website and a summary of the main pitfalls to beware of in implementing statistics in drawing up a scientific article in the ENT field.

### Disclosure of interest

The authors declare that they have no competing interest.

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