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EDITORIAL

The NAL-NL3 Fitting System

For 50 years, the National Acoustic Laboratories (NAL) has been helping hearing care professionals fit personalised hearing aids with its validated hearing aid prescription formulas. The first NAL-developed fitting prescription was published by Byrne and Tonnison in 1976 (Byrne and Tonisson 1976), NAL-R became widely used after its publication in 1986 by Byrne and Dillon (Byrne and Dillon 1986), and NAL's first prescription for multiband compression hearing aids, NAL-NL1, was released in 1999. Since its release 15 years ago, NAL-NL2 has become the world's most widely used fitting tool.

While we received many requests over the past decade for us to develop NAL-NL3, we were reluctant to produce an improvement to NAL-NL2 unless we were convinced that the new version would have a significant improvement on hearing care professionals' (HCPs) ability to fit devices. We viewed this as a 'don't fix what ain't broke' philosophy since NAL-NL2 was being successfully used worldwide on millions of hearing aid fittings a year. Our position changed as NAL research made clear that that the population of people with hearing difficulty contains different segments of people with different needs for solutions, both in technology and in fittings. Also the emergence of novel hearing technology that was significantly different from traditional HCP-fit hearing aids necessitated a shift from a one-size-fits-all fitting prescription to a modular fitting system that allows for different fitting approaches for different population segments, different technologies, and different listening situations.

This special issue introduces the NAL-NL3 Fitting System, which is both an evolution of our trusted formulas and a revolution in situational hearing care. As Director, I have had the privilege of helping direct the strategy for what this new fitting system would be, and of providing guidance on the evidence that will be necessary to ensure HCPs, hearing aid manufacturers and REM equipment manufacturers offer the benefit that the NAL-NL3 Fitting System will bring to hearing healthcare.

The core of this system is detailed in the paper by Kitterick et al., 'Development and Validation of the NAL-NL3 Prescription' (Kitterick et al. 2026a). This research addresses longstanding clinical pain points, such as excessive high-frequency gain and challenges with mixed and reverse-slope losses, resulting in more achievable targets and improved clinical efficiency.

Addressing the demand for situational optimisation, 'The NAL-NL3 Comfort In Noise Module' (Kitterick et al. 2026b) presents a manufacturer-agnostic rationale for noisy environments. This module improves loudness comfort without sacrificing the speech intelligibility that has always been NAL's priority. Furthermore, 'The NAL-NL3 Minimal Hearing Loss Module' (Kitterick et al. 2026c) opens the door for the estimated 30% of clinic visitors with 'normal' audiograms who experience real-world listening difficulties and were previously denied access to traditional hearing help.

Finally, Croteau and Kwok provide a 'Clinical Note' to guide practitioners in translating this research into daily practice (Croteau and Kwok 2026). We believe NAL-NL3 Fitting System empowers clinicians to move beyond 'best-fit' defaults towards truly personalised, needs-based care.

Every single person at NAL during its development contributed to the creation and validation of the NAL-NL3 Fitting System, and we are all proud to be able to share our thinking, research methods and outcomes in this special issue.

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Author contributions

CRediT: **Brent Edwards**: Conceptualization, Funding acquisition, Supervision, Writing – original draft, Writing – review & editing.

Disclosure statement

The author is the Director of NAL, which licences the NAL-NL3 fitting system. Major manufacturers of hearing aids (in alphabetical order: GN Resound, Oticon, Sonova, Starkey and WSA) provided hearing aids that were used to conduct studies that informed the development of NAL-NL3.

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