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**Figure 1.** Posturography-based retraining improves balance performance. (A) Mean change in SOT composite score after computerized vestibular retraining therapy (CVRT). (B) Mean maximum excursion during limits of stability test before and after retraining.

This retraining exercise protocol has the benefit of being controlled, repeatable, and can safely replicate situations of daily life in which conflicting stimuli cause difficulty for people with balance disorders.

Our ongoing research shows the potential of advanced computerized posturography as an adjunct to established

Reply

# In Response to "A New Chapter for Computerized Posturography"

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We thank Dr. Eytan David for his thoughtful comments and commend his team for their systematic work regarding the use of computerized dynamic posturography (CDP) systems as therapeutic tools for the rehabilitation of individuals vestibular rehabilitation approaches for patients with refractory balance disorders.

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## Disclosures

Competing interests: None. Funding source: None.

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with vestibular deficits.<sup>1</sup> We share the conviction that more research and technology development are needed to address the many unmet needs of patients with dizziness and balance disorders.

Our work is intended to underscore patterns of use of CDP for diagnosis and assessment as observed in claims data.<sup>2</sup> Currently, there are two CPT codes specific to CDP: 92548 (CDP Sensory Organization Test) and 92549 (CDP Sensory Organization Test with Motor Control Test and Adaptation Test). Dr. David's letter aptly highlights that CDP cannot solely be thought of as a "test." Rather, CDP is an instrument that can be used not only to run the multiple unique assessment protocols captured in claims but also to administer therapeutic interventions. Our Medicare data does not disclose the age or model of the devices used by those submitting claims for CDP between 2012 and 2017. We affirm that newer technologies would offer features unavailable on older systems, including therapeutic paradigms.

We agree with Dr. David that CDP is a useful instrument when used in appropriately selected patients. As such, we advocate for the consideration of deimplementation of CDP for inappropriate indications and do not urge its wholesale removal from the clinical armamentarium. As Norton and Chambers argue, deimplementation of inappropriate health interventions is critical for improving health of the population, minimizing harm to patients, reducing waste, and preserving the trust of the public.<sup>3</sup> For falls risk assessment among the aging population, CDP has a weak evidence base and may be replaced by validated assessments of lower complexity and cost.<sup>4</sup>

Critical to the implementation and diffusion of health technology is a strong evidence base, the very type that Dr. David and colleagues are seeking to establish for rehabilitative use of CDP with randomized trials based on solid preliminary data. We look forward to these data and others that may strengthen future guidelines regarding appropriate use and baseline equipment needs for CDP, as well as updates to CPT terminology that reflect the diversity of CDP protocols. Ultimately, these efforts aim to improve health for individuals suffering from dizziness.

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## **Author Contributions**

**Douglas J. Chieffe**: study design, conduct, analysis, drafting, final manuscript approval and agreement to be accountable for all aspects of the work. **Steven A. Zuniga**: study design, conduct, analysis, drafting, final manuscript approval and agreement to be accountable for all aspects of the work. **Schelomo Marmor**: study design, conduct, analysis, drafting, final manuscript approval and agreement to be accountable for all aspects of the work. **Meredith E. Adams**: study design, conduct, analysis, drafting, final manuscript approval and agreement to be accountable for all aspects of the work. **Meredith E. Adams**: study design, conduct, analysis, drafting, final manuscript approval and agreement to be accountable for all aspects of the work.

## Disclosures

**Competing interests:** Dr. Adams served on a medical advisory council for Advanced Bionics, unrelated to the current work.

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