Supplementary Example Cases: vERP Profiles of a Non-Responder and an Intermediate Patient

Example: vERP of a Non-Responder Patient

This supplementary document presents an illustrative case of a non-responder to methylphenidate therapy, based on vERP analysis.

Patient V37 – Characteristics

- Female, 26 years old, treatment-naïve at baseline.

- Did not meet diagnostic criteria for Attention-Deficit/Hyperactivity Disorder (ADHD); included in the institutional control group.

vERP Results Summary – Patient V37 (Mean Amplitude, AUC, Latency)

- Baseline P300 mean amplitude: **5.34 μV** (measured within the 280–450 ms window)

- Peak latency: **346 ms** (measured from stimulus onset)

- Area under the curve (AUC): **939.95 μV·ms** (computed over the 280–450 ms time window)

Figure 1: Amplitude vs Time vERP P300 plot for illustrative patient V37.
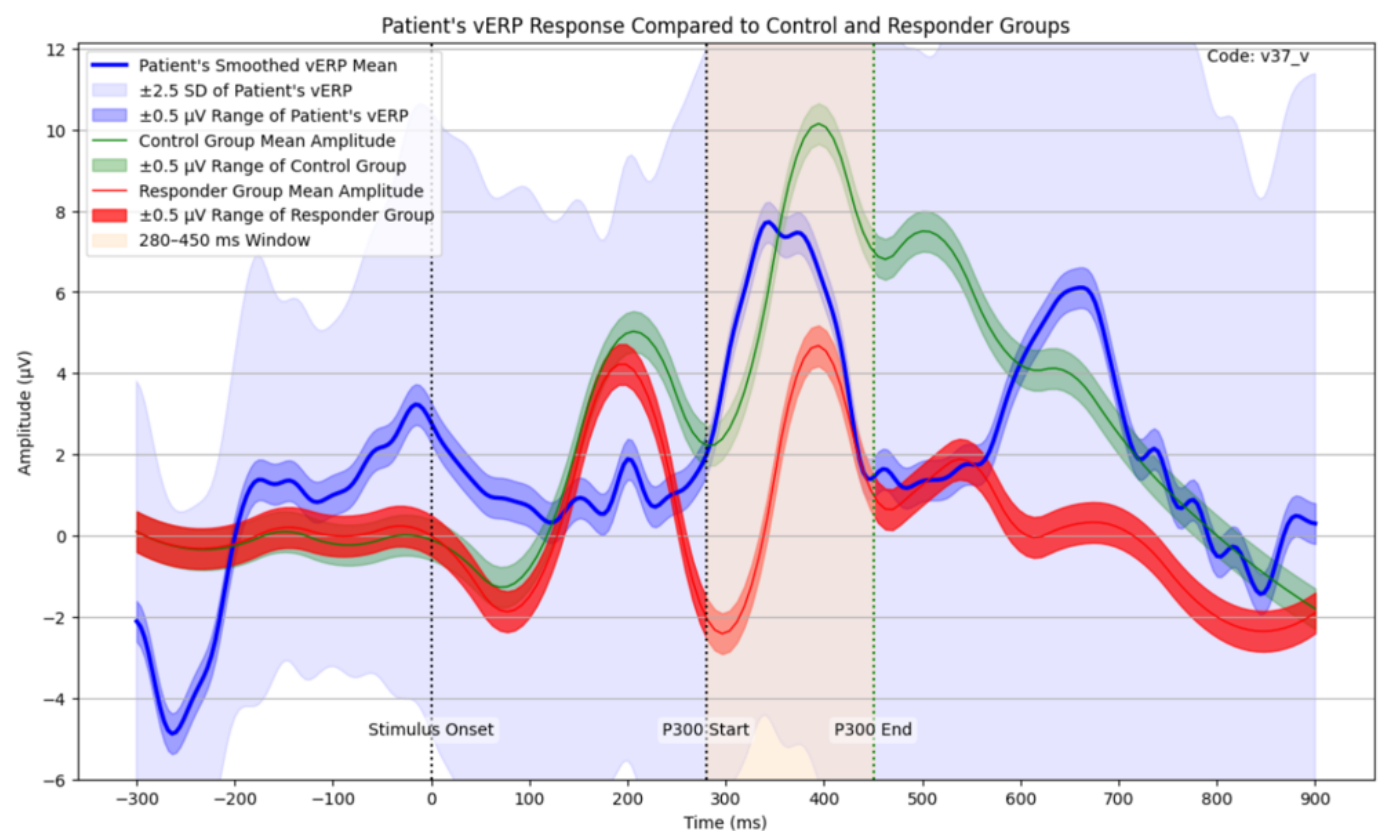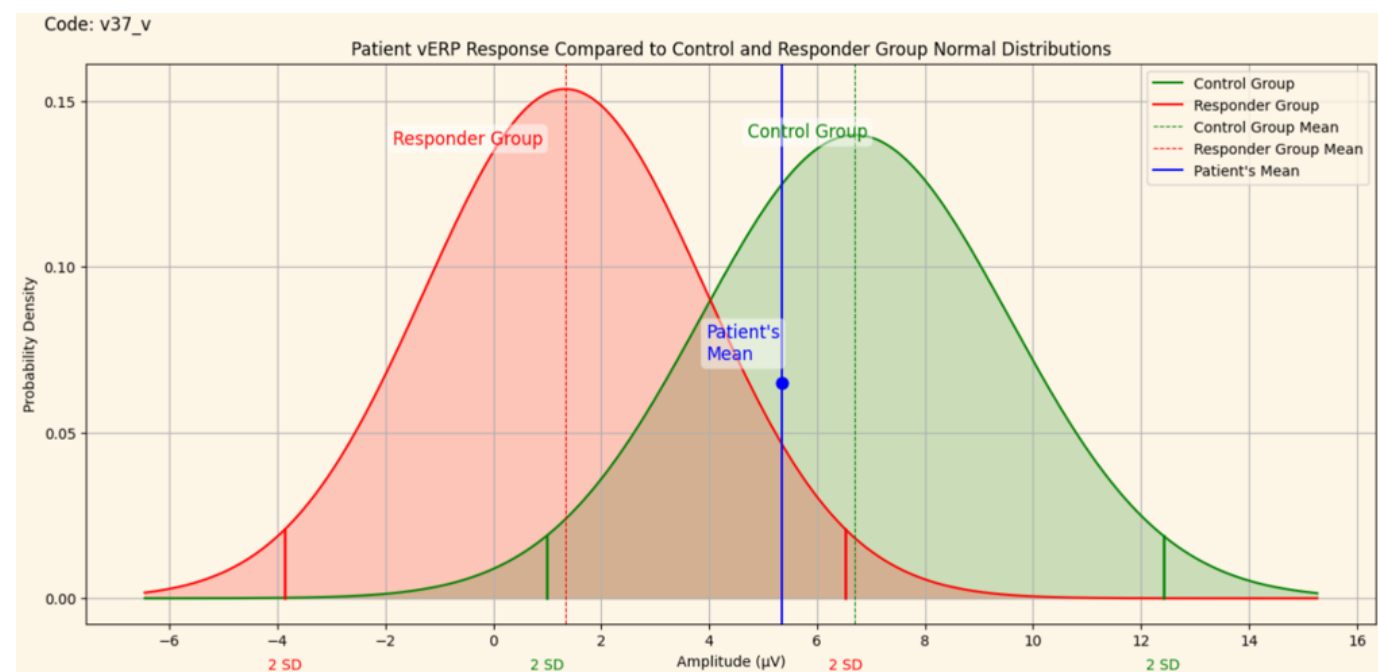

Figure 2: Amplitude Distribution Comparison for illustrative patient V37.

Example: vERP of an Intermediate Patient

This supplementary document presents an illustrative case characterized by an intermediate, non-conclusive result based on visual ERP (vERP) analysis.

Patient V40 – Characteristics

- Female, 26 years old, treatment-naïve at baseline.

- Met diagnostic criteria for Attention-Deficit/Hyperactivity Disorder (ADHD); included in the institutional treatment group.

vERP Results Summary – Patient V40 (Mean Amplitude, AUC, Latency)

- Baseline P300 mean amplitude: **4.57 μV** (measured within the 280–450 ms window)

- Peak latency: **404.39 ms** (measured from stimulus onset)

- Area under the curve (AUC): **766.73 μV·ms** (computed over the 280–450 ms time window)

Figure 3: Amplitude vs Time vERP P300 plot for illustrative patient V40.
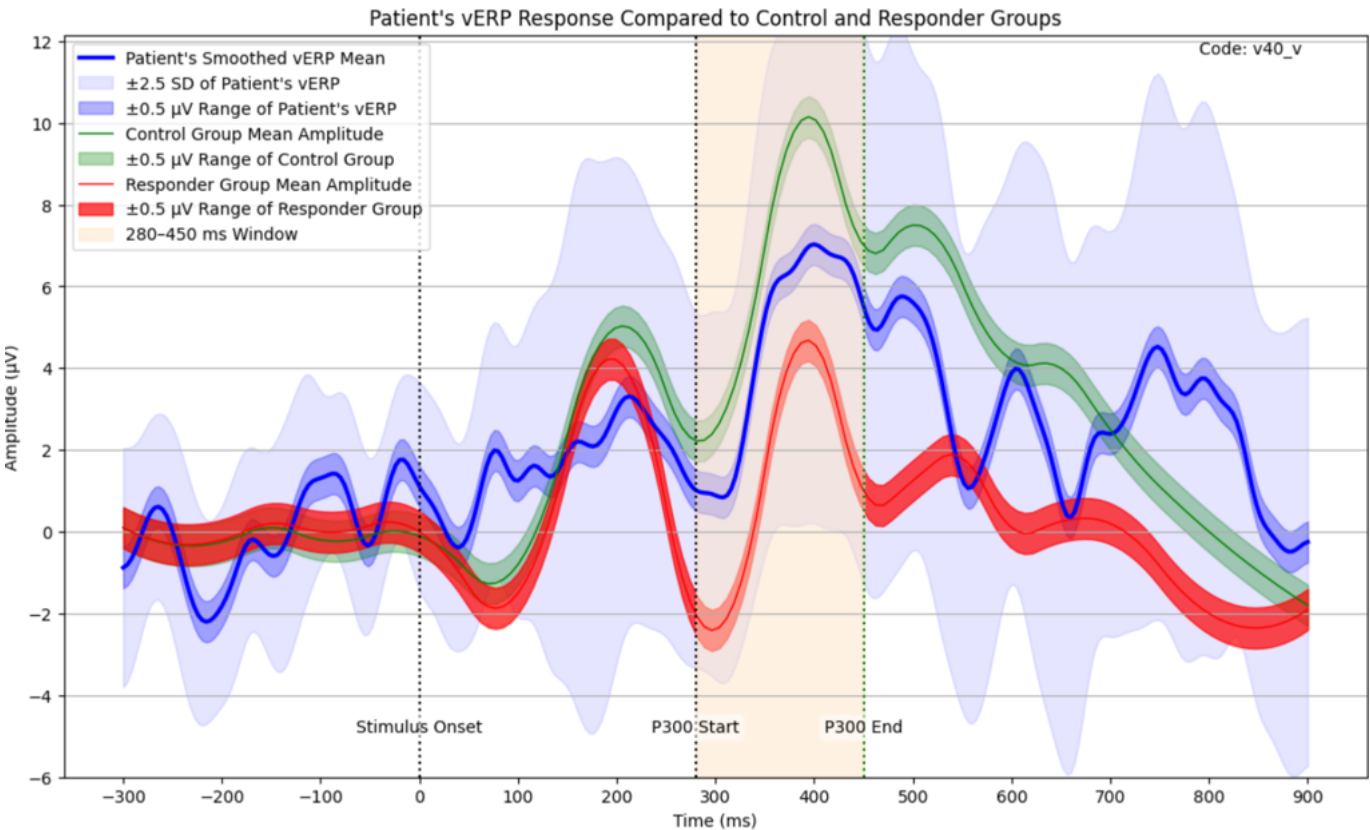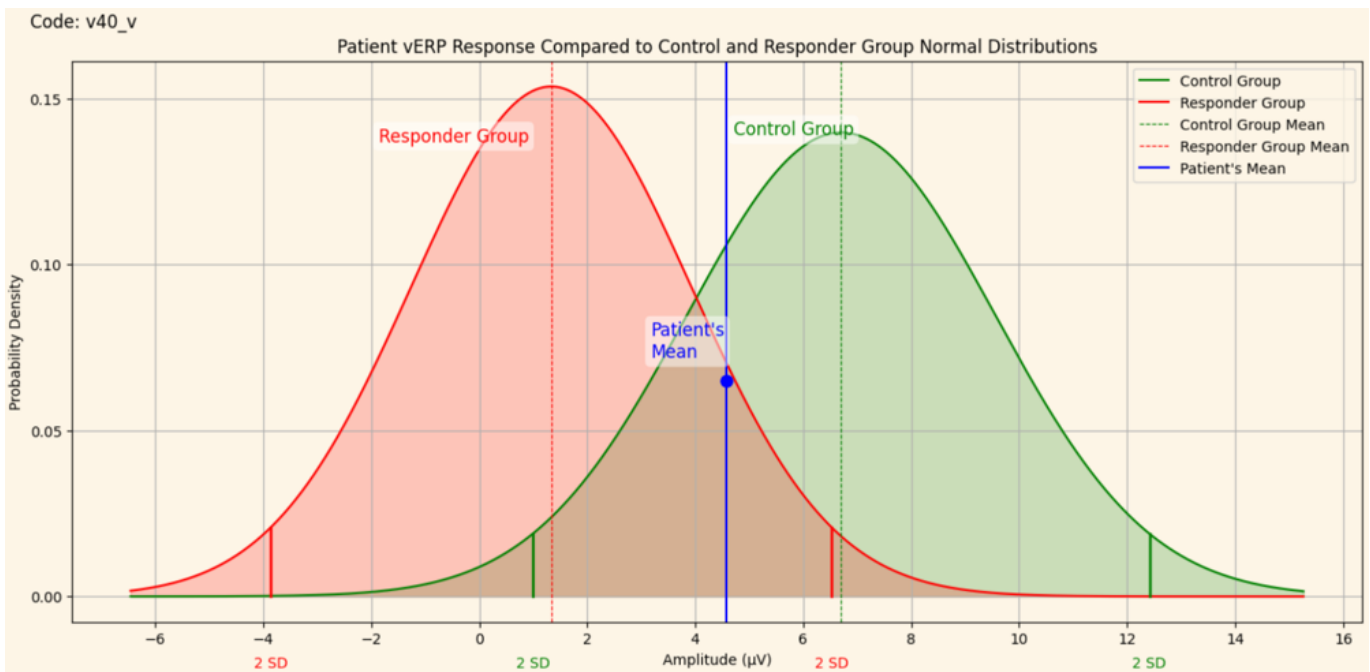

Figure 4: Amplitude Distribution Comparison for illustrative patient V40.

Notes

___These illustrative cases underscore the clinical relevance of P300 waveform analysis in response prediction.

__These anonymized waveform examples are included solely for illustrative and educational purposes.

__This document is part of the Supplementary Material for the poster titled **"Clinical utility of the P300 wave as a biomarker for methylphenidate response in adult patients with ADHD: First phase report"**, *10th World Congress on ADHD – Prague, May 2025.*