Clinical Requirement & UX Validation Survey

Project: Vital-Tronic | Neuromotor AI Screening

Partner Clinical Network: Movere in Salus

IP Owner: Leonardo Tronci

1. Research Objective

The goal of this survey is to align the Vital-Tronic AI development with clinical needs, ensuring high diagnostic utility for neurologists and a seamless user experience (UX) for elderly patients. The methodology follows a User-Centered Design approach.

2. Clinical Assessment Framework

The following questions were submitted to the "Movers" medical network (Specialists in Physiatry and Neurology):

Q1. Diagnostic Value of Early Screening How critical is it to identify sub-threshold neuromotor instabilities 12-18 months before clinical gold-standard tests (e.g., UPDRS) can detect them?

(Scale 1-10)

Q2. Kinematic vs. Acoustic Analysis In your clinical opinion, is the analysis of motor gestures (kinematics) more reliable than simple acoustic frequency for detecting Parkinsonian tremors?

(Yes/No + Comments)

Q3. Patient Compliance & Accessibility Vital-Tronic requires a 30-second voice task via smartphone. Do you consider this a sustainable barrier-free diagnostic tool for elderly patients in home environments?

(Yes/No)

Q4. Data Privacy & Edge-AI How important is it that patient voice data is processed locally (Edge-AI) without ever leaving the device, ensuring 100% GDPR compliance?

(Critical / Important / Neutral)

Q5. Reporting & Integration What is the most valuable output for a clinician?

A) Numerical Kinematic Score

B) Longitudinal Progress Graph

C) Automated Clinical Red-Flag Alert

3. Summary of Preliminary Feedback

- **Clinical Endorsement:** 100% of respondents identified "Early Detection" as the primary benefit for reducing long-term care costs.
- **Accuracy Threshold:** Clinicians indicated that a 90%+ accuracy rate (currently 92-95% in Vital-Tronic) is the required benchmark for clinical trust.
- **Ethics:** Partnership with **ARKA** and **Rosa Roja** was identified as vital for validating the tool across different linguistic and ethnic groups to avoid AI bias.