Automated Oral Motor Skills Assessment Software App

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Technology description

Automated Oral Motor Skills Assessment Software App Wanted Experienced leader to commercialize a software application that allows for the objective assessment and monitoring of speech and swallowing dysfunction. Customer Problem Patients experience challenges with speech and swallowing due to a number of causes: multiple sclerosis, Alzheimer’ s, cancer, stroke, ALS and Parkinson’ s Clinical assessment tools are subjective and qualitative, which can lead to: Potential Market Uses This software app can be used by clinicians (medical doctors and speech-language pathologists) to diagnose and treat patients with speech and swallowing disorders. The app provides immediate, objective and actionable information for diagnosis and treatment planning during patient visits. Patients can be compared to control groups as well as past performance.
Product example: Tongue Twister
• Clinician uses app to monitor tongue function during annual checkup
• Procedure is inexpensive, non-invasive, non-disruptive
• Provides objective data about tongue function
• Enables detection of early changes BEFORE significant loss of brain cells has occurred
• Could also be used for detection of concussions, stroke and impaired workers/drivers
Market Size About $750 billion is spent annually in the United States for assessment and treatment of speech and swallowing dysfunction. About 40 million Americans suffer from speech issues and 15 million from swallowing dysfunction. Innovation MU researchers have developed a baseline software application that can be used as the basis for a number of diagnostic tools related to speech and swallowing dysfunction. Current assessment and treatment planning protocols are qualitative and subjective.
Assessing functionality and comparing it with a broad database of function allows the clinician to benchmark the functionality objectively.
Using the software app can facilitate:
• Early diagnosis of speech and/or swallowing dysfunction
• Tracking of disease progression (a patient’ s own functionality can be compared over time)
• Treatment monitoring The software automatically computes objective and quantitative outcome measures, and allows for comparison of individual patients with other patients and control groups.

Advantages

Competitive Advantages
• Objective and consistent measurement
• Inexpensive to deploy
• Application in multiple markets, including speech pathology, clinical trials, primary care, etc.

Institution

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