

Specifications

Background

The Minneapolis VAHCS provides a variety of clinical services. The Physical Therapy department at the Minneapolis VAHCS remediates injuries and promotes an improvement of quality of life through diagnoses and therapies. Various pieces of medical equipment is utilized by Physical Therapy, one specifically focuses on improving balance utilizing immersive virtual reality technology.

Scope

The Minneapolis VAHCS is procuring one (1) Balance Therapy Solution for the Physical Therapy department.

Equipment Requirements

A quantity of one (1) balance therapy solution is being requested for the Minneapolis VAHCS Physical Therapy department.

The balance therapy solution shall have the following requirements:

- Clinical Requirements
 - o Computerized Dynamain Posturography (CDP)
 - Sensory Organizational Test (SOT) – Six condition assessment that will validate and isolate individual sensory inputs to balance (visual, somatosensory & vestibular)
 - Motor Control Test (MCT) – Assessment of first automatic motor reflex in response to a fall or trip
 - Adaptation Test (ADT) – Assessment of brain's ability to adapt and develop compensatory balance strategies in response to surface disruptions
 - o Immersive Virtual Reality (VR)
 - Fully immersive virtual reality
 - Utilized to disrupt vision during testing
 - Integration with the CDP tools
 - o CDP/VR system
 - Provide unique information about impairments
 - Functional force plates to quantify specific impairments
 - Additional functional testing once specific impairments are identified
 - Control of specific stimulus dose during therapy
 - Develop specific and focused rehabilitation programs based off of data
 - Comprehensive training suite, with selectable options:
 - Background scene, surround gain, pacing, platform sway gain, percent limits of stability, duration and backgrounds (optokinetics, rock wall, ovals, checkerboard room, infinite grocery aisle, desktop airplane game)
 - o Bertec Vision Advantage (BVA)
 - Wireless, lightweight sensor worn on the head
 - Automatic sensor calibration
 - Multiple degrees of freedom
 - Must provide multiple protocols:
 - Static Visual Acuity - Must be able to measure patient's visual acuity with the head stationary
 - Visual Processing Speed - Must be able to measure visual processing speed
 - Dynamic Visual Acuity – Must provide assessment of small character identifiable while the head is moving at a specified velocity
 - Gaze Stabilization Test – Must be able to measure a patient's stare and deviations from a baseline when visual activity breaks down.
 - o Static Force Plate Systems
 - Must include mCTSIB, LOS, RWS, Unilateral Stance, Weight Bearing squat and bio-feedback based treatment protocols.

- Must provide the following functional functions, walk across, step up and over, sit to stand, head quick turns, tandem walk, forward lunges, and others
- Clinical Training
 - On-site go-live clinical training shall be provided
 - Off-site clinical training
- Technical Requirements
 - 500lb load capacity
 - 4" step height on a 18" x 20" force plate
- General Requirements
 - Contractor shall fully install the equipment and certify it is ready for clinical usage
 - Contractor shall confirm full functionality of the with Minneapolis VAHCS staff before stating work is complete.
 - Contractor shall provide the equipment to the Minneapolis VAHCS, One Veterans Drive, Minneapolis, MN 55417.
 - Contractor shall coordinate installation during normal business hours, with the approval of the on-site Point of Contact.
 - Contractor shall dispose of all waste.
- Warranty
 - Two year warranty

Place of Performance

The selected vendor shall provide the upgrade to the Minneapolis VA Health Care System. The address is One Veterans Drive, Minneapolis, MN 55417