Applications

- Rehabilitation treatment plan aid
- Objective assessment of quality of care and outcomes of therapy
- Assures compliance with Electronic Medical Record

Advantages

- Wireless system allows for automated patient monitoring
- Automated data collection reduces therapists record keeping and lost time
- Stores data for continuous evaluation of patient progress
- Data can be used to benchmark patient care against CPGs and other centers

Patients undergoing treatment in rehabilitation centers receive therapies up to 3 hours per day to meet their individualized discharge goals which is driven in part by clinical practice guidelines (CPG). These guidelines are based on published research and help therapists in making treatment decisions. Therapists must observe the patient and continually make notes about their progress which is labor intensive, time consuming and expensive.

VCU researchers have developed automated patient-centered data capture system that will incorporate a device worn by the patient to transmit performance data wirelessly to a central database. Using a proprietary algorithm to analyze the encrypted data, therapists will now have a comprehensive assessment of the patient’s progress. This data stored in the Electronic Medical Record will also provide data for the rehabilitation center to evaluate and modify its CPGs—thus improving patient care and utilization of therapists and potentially reducing health care costs.