

# Utilizing Valid, Reliable, and Practical Measures of Health Status in Interdisciplinary Geriatric Care:

## *The Physiotherapist's Role*

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**HomeTeam**  
MEDICAL SERVICES

### Background and Purpose

- Our team of physicians, nurses, physiotherapists, and rehabilitation aides provides **home-based** primary healthcare to seniors in Victoria, BC.
- To better support evidence-based care, we combined 10 valid, reliable, and clinically useful tests into a single health status and risk assessment tool, called the Seniors Health Assessment, Report and Plan (SHARP™).
- We will demonstrate via case studies, how our PT team uses the SHARP™ in interdisciplinary practice.**

### Standardized Measurements: The SHARP™

- The Senior's Health Assessment Report and Plan (SHARP™) is a 60-minute assessment completed annually by a practice nurse, consisting of 10 standardized outcome measures. Most of these results are **relevant for PT**, either by identifying the need for intervention even in absence of "complaints" or health crises, planning PT treatment, and/or identifying barriers to success.
- The SHARP™ is made up of 10 component measures:
  - 1) Clinical Frailty Scale (CFS)
  - 2) EuroQOL EQ-5D-5L for Health-Related Quality of Life
  - 3) EuroQOL EQ-VAS Visual Analog Scale for General Health
  - 4) **Gait Speed (over 3m)**
  - 5) **Grip Strength**
  - 6) Montreal Cognitive Assessment (MoCA)
  - 7) **Geriatric Depression Scale (GDS-5 question version)**
  - 8) Months of the Year Backwards (MYB)
  - 9) **Mini Nutritional Assessment® (MNA-6)**
  - 10) 3 oz. Water Swallow Test (WST)
- The SHARP™ is performed at baseline, when patients first enter the practice, and then again annually.
- Components of the SHARP are also repeated to evaluate team interventions, and/or when health status changes.

### The SHARP™ Beyond Patient Care

- Clinicians, Case Managers, and Facilities use the SHARP™ to coordinate amongst teams, and to develop individual care plans.
- Patients and their family caregivers use the SHARP™ to articulate individualized goals of care and motivate patients for treatment.
- Administrators use aggregated SHARP™ results for evaluation and program planning.

### Methodology

Three older adults with complex health needs, living in the community, were assessed using the SHARP™ at intake and annually, repeating relevant components in the interim.

These results were used to:

1. Assist clinicians identify patients who would benefit from PT.
2. Motivate patients and caregivers for team interventions, including PT.
3. Assist in identifying and treating possible barriers to participation in PT (e.g. pain, depression, inadequate nutrition and/or hydration).
4. Evaluate effectiveness of coordinated team interventions.

### Role of the Physiotherapist

1. **After SHARP™ completion, the RN refers a patient for PT assessment** if one or more of the following apply:
  - Marked decline from previous year's assessment.
  - Key measures (Gait Speed, Grip Strength) fall below norms.
  - Patient reports issues with pain, balance, mobility.
  - RN concerned about safety of home environment, walking aid.
2. **Full in-home assessment is completed by PT (60-90 min)**
  - Assessment is tailored to patient issues.
  - Includes other relevant outcome measures.
3. **PT plans treatment** including physiotherapy intervention (education, exercise prescription, needling, manual therapy, equipment prescription, etc.) and referral to rehabilitation aide (RA) for supervised exercise if appropriate.
4. **Assessment note & plan are sent within the team** (RN, MD, RA)

### Case Study 1, DT

89-year-old woman. L CVA with mild right-sided weakness, DM, vascular dementia, depression, edema.

**Initial SHARP™ results:** Gait Speed 0.78 m/s, Grip Strength 10.3 kg, MNA 8 (at risk malnutrition), GDS 5/5 (severe depression)

**MD/RN:** Antidepressants (Ritalin, mirtazapine), diuretic, nutritional counseling, protein supplementation.

**PT:** 30-second-STS 7, difficulty with bed transfers, poor balance

1. Initiate home exercise program.
2. Referral for supervised exercise with RA twice weekly.
3. Suggest change to more appropriate 4 WW with slowdown brakes, added bed assist rail.

**Rehabilitation** visits 2x/week for 5 months, then tapered to monthly: Dynamic balance training, gait training, resistance training, outdoor walking, stairs training.

**6-month reassessment:** Gait speed 0.81m/s, 30-second-STS 9

**Continue independent home exercise program** and change to monitoring visits every 6-8 weeks.

### Case Study 2, FM

91-year-old woman. Chronic headaches and back pain; OA hips, back, and feet; OP; insomnia; anxiety.

**Annual SHARP™ results:** Gait Speed 0.57 m/s, Grip Strength 10.0 kg, GDS 2/5

**MD/RN:** Adjustments to pain medication, mood medication, counseling, referral to pain program.

**PT:** Berg Balance 41/56

1. Initiate home exercise program.
2. Referral for supervised exercise with RA twice weekly.

**Rehabilitation** visits 2x/week for 6 months, then tapered to monthly: Dynamic balance training, gait training, resistance training.

**8-month reassessment:** Gait speed 0.77m/s, BERG 54/56

**Continue independent home exercise program** and change to monitoring visits every 6-8 weeks.

### Case Study 3, SC

82-year-old man. Vascular dementia, subdural hematoma, CHF, seizures, orthostatic hypotension, syncope with frequent falls, OP with compression fracture L1, insomnia.

**Initial SHARP™ results:** Gait Speed 0.74 m/s, Grip Strength 24.3 kg, MNA 11 (at risk malnutrition),

**MD/RN:** Switch to alternative anti-seizure medication, melatonin, dietary counseling, increase salt intake, protein supplementation.

**PT:** Berg Balance Scale: 52/56, 30-second-STS: 10

1. Initiate home exercise program.
2. Change from 2 WW to 4 WW.
3. Referral for supervised exercise with RA twice weekly.

**Rehabilitation** visits 2x/week for 4 months, then tapered to monthly: Resistance training, static and dynamic balance training, stairs and gait training, floor transfers.

**8-week reassessment:** Gait speed: 1.28 m/s, 30-STS: 11, Berg: 55/56

**Continue independent home exercise program** and change to monitoring visits every 6-8 weeks.

**5-month reassessment:** Grip strength 27.3 kg

### Results

1. **Gait speed and grip strength are particularly useful in identifying patients in an interdisciplinary practice who could benefit from PT.**
2. **The SHARP™ allowed identification and management of barriers to PT adherence and effectiveness.**
3. **Regular, standardized assessments helped our team evaluate coordinated interventions (including PT) and adjust treatment plans.**

### Conclusions

- **Physiotherapists are an essential part of any team-based geriatric primary care practice.**
- **Standardized testing done regularly can assist in identifying patients who could potentially benefit from physiotherapy, without waiting for a "crisis" such as a fall, pain flare, ER visit, or hospitalization.**

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