Physiotherapy Approaches in Medically Complex and Frail: Resetting Our Perspective

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Managing Frailty as a Long-Term Condition
- Frailty a distinctive late-life health state
  - Minor stressors = adverse health outcomes
- Two established international models
  - Frailty phenotype
  - Cumulative deficit model
- Models identify risk of a range of adverse outcomes (e.g., dependency, institutionalization, premature mortality)

A New Perspective on Frailty
- Shares key features of long-term conditions
- Not routinely identified or coded as a diagnosis in primary or secondary care
  - As a result: not a visible condition for health service planning and delivery

Argument:
- Explore what this means in terms of a more proactive, preventative health and social care response
- Considering proactive, intervention approaches in Physiotherapy
  - Screening – Intervening
  - Maintaining highest maximal functional capabilities

New Perspective: Rehabilitation for Frailty as a LT Condition
- Each long-term condition has attracted disease-specific management guidelines
- Care pathways designed to variations in care, improve outcomes, and lower cost
- Frailty shares key features – it can’t be cured; it’s costly; its progressive; it adversely impacts life’s experience; it has episodic crisis

Systematic Review & Meta-analysis of Comprehensive Geriatric Assessment
- Improved rates of independence at D/C
- Decreased institutionalization
- Decreased mortality
- Subgroup analysis reported results robust for needs-based services
  - Key Element: Episode of Physical Rehabilitation

Physical activity is assumed to be important in the prevention and treatment of frailty.

Unclear to what extent frailty can be influenced.

Instruments designed to assess frailty have not been validated as evaluative outcome instruments in clinical practice.

The EFIP has been found to be reliable and valid.

Important that we use this clinically.

Prevent/delay functional decline.

Modifiable risk factors:
- Posture improved = function improved
- Falls reduced by therapeutic approaches
- Reduced functional limitations
- Increased endurance – C-V and Pulmonary
- Sarcopenia and nutrition potentially modifiable
- Cognition improved by exercise
- Increasing speed of movement

Control Through Appropriate Rehabilitation Strategies

Common Important Outcome of Comprehensive Geriatric Assessment

Evidence from intervention studies supports value of physical rehabilitation for improving mobility & physical functional.


EDUCATION - KEY IN MANAGING Balance, Functional Mobility & Slowing Progression of Frailty

Screening – identification/management of risks
Self-managed care – fitness; hygiene; nutrition….
Home assessment and modifications
Providing ongoing/periodic PT intervention
Caring for the caregivers
Physical therapy interventions as warranted

Managing Pain: PENS Approach

INTERDISCIPLINARY APPROACH

Pain: source; intensity; tolerability; quality; location
Expectations/Emotions: comfort-function-mood
Nutrition: untreated pain; appetite; weight; affect on pharmacodynamics & kinetics; affect on activity
Sleep: insufficient affects pain

Seven different types of interventions verified:
- Muscle strengthening
- Combination – balance, coordination, flexibility, reaction time and aerobic training
- Functional training
- General physical therapy
- At-home physical therapy
- Environmental adaptation and prescription of assistive device
- Water exercises.
Posture
“Extension Equals Function”


STRENGTHENING

- Stress Extension
- Anterior Tibialis
- Hip Abductors and Extensors
- Knee extensors
- Shoulder extensors
- Ability to manage body weight


Posture, Agility & Functional Mobility

- Stretching
- Posture
- Accommodation strategies
- Joint mobility
- Functional mobility


ENDURANCE / STAMINA

- Functional activities
- Cardiovascular
- Cardiopulmonary
- Progressive/reasonable
- Respiratory
- Muscle endurance


GAIT TRAINING

- Posture / extensor strength
- Walking speed
- Cardiovascular Endurance
- Pulmonary condition
- Proper fitting shoes
- Vision /
- Environment


Balance Organization & Movement Strategies

- Sensory Organization
- Increase awareness of center of gravity
- Challenging environments
- Functional activities

Alternative Therapies

- Balls, Hammocks, Rocking Chairs, Fitter...
- Swimming / Aquatics
- T’ai Chi, QiGong, Modified Yoga, Pilates...
- Dancing, recreation
- Modalities as warranted
- Instrumental ADL


Key Points: Managing Frailty as a Long-Term Condition

- Refocusing efforts
- Screening – intervening (all disciplines
- Addressing functional decline early – all settings
- Increasing home support
- Remarkable benefits of exercise in all conditions contributing to the long-term condition of Frailty

IN A FRAIL ELDERLY POPULATION

ANYTHING ABOVE REST WORKS!!! JMB