Physical Therapy Prescription

PT and Physician Perspectives

What is therapy?

- Specialists in evaluating and treating movement disorders
- Restore, maintain, and promote optimal physical function, as well as, optimal wellness and fitness and optimal quality of life as it relates to movement and health
- Prevent future injury

Procedures

- Therapeutic Exercise
- Therapeutic Activities
- Neuromuscular education
- Balance and Coordination training
- Manual techniques
- Gait Training
- Aquatics
- Community/Work Reintegration training
- Modalities

Therapeutic Exercise

- Any exercise performed to attain a specific physical benefit, such as improving and maintaining range of motion, strength, joint mobility, or cardiovascular and respiratory function
- Active, Active-Assisted, Passive Range of Motion

Neuromuscular Re-Education

- Therapeutic procedures provided to improve balance, coordination, kinesthetic sense, posture, and proprioception
- Proprioception Neuromuscular Facilitation (PNF), Neurodevelopment Therapy (NDT), Feldenkrais, Bobath, BAP's boards, and desensitization techniques
- Vestibular therapy

Therapeutic Activities

- Using functional activities to improve functional performance in a progressive manner
- Ex: Teaching transfers, lifting, carrying, bending, reaching, catching, and overhead activities

Aquatics

- Uses the therapeutic properties of water (buoyancy, resistance)
- Buoyancy reduces gravitational pull and lessens compressive forces
- Warmth of the water (94°) allow muscles relaxation while helping to reduce pain
- Stimulates body awareness, balance, and trunk stability
- Improved patient morale and confidence by providing a positive medium in which to function

Manual

- Mobilization
- Manipulation
- Manual traction
- Lymphatic drainage
- Myofascial Release

Modalities

- Electrical Stimulation
- Paraffin
- Fluidotherapy
- Mechanical Traction
- Ultrasound
- Phonophoresis (not covered by Medicare)
- Iontophoresis (not covered by Medicare)
- Laser therapy (not covered by Medicare)

Other

- Wheelchair management and training
- Orthotic management and training
- Prosthetic training
- Canalith repositioning

It's all about FUNCTION

- We treat functional deficits (Not pain)
- Modalities as an adjunct to a more active approach
- Testing
 - Now required by Medicare
 - Claims based outcomes reporting (CBOR)
 - Sports specific and work specific tests

Vestibular Rehab and Concussions

- Rest is still the 1st stage of recovery
- Early education, cognitive behavioral therapy, and exercise therapy have shown efficacy, however, limited study design¹
- Vestibular rehab is helpful for those that did not resolve with rest²⁻⁴
- Unfortunately, evidence on exactly what exercises/treatment is lacking⁵

Vestibular Rehab and Concussions

- Treatment program designed to promote vestibular adaptation and substitution
- Initiate with sub-symptom threshold training
- Key movements⁶:
 - Gaze stabilization exercises
 - Head-eye movements with various body postures and activities
 - Maintaining balance with a reduced base of support with various had and trunk orientation
 - Must be performed frequently
- Sport specific training

Vestibular Rehab and Concussions

• Goals of Vestibular Rehab⁶:

- Enhance gaze stability
- Enhance postural stability
- Improve vertigo
- Improve ADL
- Associated Problems:
 - Cervical
 - TMJ
 - Peripheral Vestibular Problems (BPPV)

Back Pain

- Over 1000 RCT's investigating the management of LBP⁸
- However, the evidence remains inconclusive⁹

Back Pain

- Back pain is heterogeneous ¹⁰
- Not reasonable to expect everyone to respond to a single treatment approach
- O'Sullivan: "It's time for change with the management of non-specific chronic low back pain".¹¹
- The use of a classification approach results in better outcomes than the use of alternative management approaches for conservative management of LBP.¹²⁻¹⁵

Back Pain

- Medical model: based on pathoanatomical source of symptoms. However, relevant pathology is identified in less than 15% of cases.¹⁶
- The Guide: The primary goal of the PT diagnostic process is to classify patients based on clusters of signs and symptoms in order to direct decision making choices.

Recommendations

- > Therapists: We should classify our patients
 - Classification system must direct treatment
 - Active care associated with better outcomes¹⁷
- MD's: The earlier the better¹⁷⁻¹⁸
 - Medicaid: No PT for chronic conditions
- Communication
 - Non-responders
 - Return to sport/activity
 - Assistive Devices
 - Progress Notes

Physical Therapy Prescription

- Physician referral is required for treatment
- Elements needed (Texas Practice Act and most insurances)
 - Medical Diagnosis
 - Signature (Superior: Does not accept EMR signature)
 - Date
 - Frequency and Duration? (Superior)
- Recommend
 - Eval and treat
 - Add specifics if deemed necessary

Certifications (Medicare)

Plan of Care/Updated Plan of Care

- Dated signature required that indicates approval of the plan of care.
- Timely when obtained within 30 calendar days of the initial treatment
- Re-Certifications must be obtained within the duration indicated on the initial plan of care or within 90 days

"We should start saying that exercise is something we are designed to do (not just supposed to do). And when we don't do it, our bodies and brains fall apart".

References

- Leddy JJ, Sandhu H, Sodhi V, et al. Rehabilitation of concussion and postconcussion syndrome. *Sports Health*. 2012;4:147–154.
- 2. Alsaheen BA, Mucha A, Morris LO, et al. Vestibular rehabilitation for dizziness and balance disorders after concussion. *Journal of Neurophysical Therapy*. 2010;34:87–93.
- 3. Vidal PG, Goodman AM, Colin A, et al. Rehabilitation strategies for prolonged recovery in pediatric and adolescent concussion. *Pediatric Annals.* 2012;41:1–7.
- 4. Gagnon I, Galli C, Friedman D, et al. Active rehabilitation for children who are slow to recover following sport-related concussion. *Brain Inj.* 2009;23:956–964.
- 5. Bland DC, Zampieri C, Damiano DL. Effectiveness of physical therapy for improving gait and balance in individuals with traumatic brain injury: a systematic review. *Brain Inj*. 2011;25:664–679.
- 6. Han BI, Hyun SS, Ji SM. Vestibular rehabilitation therapy: review of indications, mechanisms, and key exercises. *J Clin Neurol*. 2011;7:184–196.
- 7. Koes BW. Van Tulder MW, Thomas S. Diagnosis and treatment of low back pain. *BMJ*. 2006;332:1430-1434.
- 8. Hayden JA, van Tulder MW, Tomlinson G. Systematic Review: strategies for using exercise therapy to improve outcomes in chronic low back pain. *Ann Intern Med*. 2005;142:776-785.
- 9. Kent P, Keating J. Do primary-care clinicians think that nonspecific low back pain is one condition. *Spine*. 2004;29:1022-1031.

References (continued)

- 10. O'Sullivan P. It's time for change with the management of non-specific chronic low back pain. *BJSM* 2012;46:224-227.
- 11. Delitto A, Cibulka MT, Erhard RE, et al. Evidence for use of an extension mobilization category in acute low back syndrome: a prescriptive validation pilot study. *Phys Ther* 1993;73:216–228.
- 12. Erhard RE, Delitto A, Cibulka MT. Relative effectiveness of an extension program and a combined program of manipulation and flexion and extension exercises in patients with acute low back syndrome. *Phys Ther* 1994;74:1093–1100.
- 13. Fritz JM, Delitto A, Erhard RE. Comparison of a classification-based approach to physical therapy and therapy based on clinical practice guidelines for patients with acute low back pain: a randomized clinical trial. *Spine* 2003;28:1863-1872.
- 14. Childs JD, Fritz JM, Flynn TW, et al. Validation of a clinical prediction rule to identify patients with low back pain likely to benefit from spinal manipulation. *Ann Intern Med* 2004;141:920–928.
- 15. Waddel G. The Back Pain Revolution. Edinburgh: Churchill Livingston 2004.
- 16. Fritz JM, Cleland JA, Speckman M, et al. Physical therapy for acute low back pain: associations with subsequent healthcare costs. *Spine*. 2008;33:1800–1805.
- 17. Zigenfus G, Jiahong Y, Giang G, et al. Effectiveness of early physical therapy in the treatment of acute low back musculoskeletal disorders. *Journal of Occupational and Environmental Medicine.* 2000;42:35–39.