What is Physical Therapy?

- Definition: a health care profession that performs evaluation and skilled intervention for individuals who demonstrate musculoskeletal, neurologic, cardiopulmonary impairments that directly affect normal functional mobility and independence.
- Physical therapy education is evidence based, and entry level masters or doctoral programs.
- Physical Therapist work in a variety of settings such as Hospitals, Inpt Rehab, Outpt and sports clinics, Schools, Home health, Work hardening/Industrial, Women's Health, Research centers.

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Due to the large body of knowledge comprised by physical therapy, some PT’s specialize in a specific clinical area. The APTA recognizes 8 areas of specialty:

- Cardiovascular and Pulmonary
- Clinical Electrophysiologic Application
- Geriatrics
- Neurologic
- Orthopedics
- Pediatrics
- Sports Medicine
- Women’s Health

There are also unofficial specialties dealing with integumentary systems.

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PT practice has evolved over the years from “prescriptive” to PT’s having direct access in 47 of 50 states. However CMS (Medicare) continues to require MD prescription for direct access services for all Medicare patients. CMS has also implemented very strict guidelines as to what qualifies as a skilled intervention. Medicaid, along with many private insurances have adopted these reimbursement changes.

Why is this important? PT is a billable service and must adhere to CMS guidelines.

**So what is “Skilled”?**

- Skilled interventions are defined as those that require the specific knowledge, skills, and judgment of a therapist for patient education and skilled training. There should be an expectation for improvement in a reasonable and measurable amount of time.
- Non skilled interventions are those aimed at maintenance in conditions that are permanent or chronic in nature such as palliative ROM or exercise programs, ROM in the absence of complicating factors and repetitive gait for conditioning.
**Why PT in the ICU?**
PT’s are specialists in the evaluation and treatment of musculoskeletal, neurologic, and cardiopulmonary impairments and their direct impact on the patients, strength, motor control, sensation, functional mobility, gait, and balance.

**What constitutes “mobility”?**
PT’s evaluate individuals deficits. They will synthesis this information with considerations of baseline function, current activity tolerance / response to treatment. Each therapy intervention is individualized and incorporates pt’s goals.

Mobilization is a **progressive** process.
Mobility includes: bed mobility, edge of bed activities, transfers out of bed to chair, gait training, wheelchair mobility.

Physiotherapy for adult patients with critical illness: Recommendations of European Respiratory Society and European Society of Intensive Care Medicine Task Force on Physiotherapy for Critically Ill Patients:
History of PT in ICU

Mid Eighties/ Early 90’s
East coast cardiopulmonary PT’s
- Chest Physical Therapy
  Massachusetts General Hospital
  Maryland Shock Trauma
Changes in reimbursement in late 90’s
Reduction of staffing
Prioritization of workload
Specialization of Services.

Stiller K (200) Physiotherapy in Intensive Care
Units Chest 2000;118;1801-1813
**Challenges of ICU for PT**

**Skills:**
Early mobilization of the critically ill patient receiving mechanical ventilation is an advanced physical therapy practice and requires education and specialized skills in specific areas that affect clinical decision making as well as treatment prescription.

**Environment:**
Numerous lines, tubes, monitoring & ventilator = labor intensive.

Sedation, level of alertness, cognition, patients active participation, ability to learn.

Medical stability, activity tolerance, adequate proximal muscle strength to participate in active mobility training.

Perme C PT CCS, Chandrashekar R PT, (2009) Early Mobility and Walking program for Patients in ICU: creating a standard of Care. AJCC 36:8 2230-2243
Assessment for mobility

**PT eval:**
Asses level of alertness, ability to follow commands. Active ROM/ Motor Control or Strength, Sensation, Proprioception, Coordination Vitals Signs, medical stability for mobilization.

**Asses bed mobility** -> rolling, scooting, bridging
How much can the patient assist? Is the patient able to follow simple motor commands.
Supine to Sit transfers-> Is patient able to perform activity/ How much assist required?
Sitting edge of bed (EOB) Asses trunk control, static and dynamic sitting balance

*If pt unable to sit EOB unsupported likely not ready for transfers//amb.*

**Establish Goals** must be measurable and achievable

**Establish Treatment Program** : Intervention should address functional impairments identified during assessment with focus of building on available skills to progress I mobility

www.hopkinsmedicine.org/dome
**PT interventions:**

EOB activities: ongoing assessments of I static and dynamic sitting balance, seated activities, reaching outside base of support. *These activities establish proximal stability which is fundamental for distal mobility (transfers/ gait)*

Transfer training: This may begin as simple as sit to stand activities at the edge of bed, weight shifting with assistive devices, pre gait activities. If pt does not have adequate LE strength to stand but does have I dynamic sitting balance transfers could be performed with transfer board, building up to stand pivot transfers.

Gait activities: may also begin with weight shifting, marching, or short distances repeated frequently to build up to longer more functional distances.
Each of the therapy interventions include ongoing assessments of patient tolerance, ability to participate, measurement of improvement and reevaluation of goals.

PT’s must be able to document measurable gain in function and achievement of established goals in order for the intervention to continue as skilled.

There should be periodic reevaluation of patients who may have been placed on a RN program for ROM/ out of bed to chair to establish appropriateness for skilled intervention (i.e. due to poor activity tolerance/ inability to achieve goals with therapy).

Establish guidelines for transition to Nursing mobilization.
Conclusion

Questions?
References:

Rochester, C  MD Rehabilitation in the Intensive Care Unit Seminars in respiratory and Critical Care Med/ Volume 30, 6


Needham DM. Mobilizing patients in the intensive care unit: improving neuromuscular weakness and physical function. JAMA 2008; 300:1685-1690

Morris PE Early intensive care unit mobility therapy in the treatment of acute respiratory failure. Critical Care Med 2008 Vol36 No. 8

Perme C Early mobility and Walking Program for Patients in ICU: Creating a standard of care. AJCC 2009 Vol 8 No 3 212-220