

*Pain Management*  
Should Not Be Painful

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# Physiatry

- Physical Medicine and Rehabilitation or PM&R
  - Nerve, muscle, and bone experts who treat injuries or illnesses that affect how you move.
  - Pain Management Physiatrists are trained to help alleviate pain through a range of interventional and minimally invasive procedures.

# History of PM&R

- The name physiatrist (pronounced fiz-ee-at-rist) is derived from the Greek words "physis," pertaining to physical phenomena, and "iatreia," referring to healer or physician.
- During World War I extensive utilization of "physical reconstruction services" was instituted to improve the functional restoration of injured soldiers. These physicians were the first physiatrists.



# WW II

- During World War II another series of events propelled physical medicine forward. A committee was formed by a noted philanthropist, Bernard Baruch. The goal was to study physical medicine, developing ways to expand the field, and contribute maximally to the care of injured soldiers and sailors in the field.





Requirements for a specialty board were met and the American Board of Physical Medicine (ABPM) was recognized by the American Medical Association in

1947

# PM&R

## Qualifications and Training

- 4 years of graduate medical education
- 4 additional years of residency training
- Many physiatrists choose to pursue additional advanced degrees (MS, PhD) or complete fellowship training in a specific area of the specialty, such as spine medicine/musculoskeletal rehabilitation.
- To become board-certified in physical medicine and rehabilitation, physiatrists are required to pass both a written and oral examination administered by the American Board of Physical Medicine and Rehabilitation (ABPM&R).



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# Physiatry is Multidisciplinary

- **PM&R is built on the "team approach,"** The patient's physical, functional, emotional, and psychosocial well-being are all considered in treatment.
- **The physiatrist is trained to lead and coordinate care with the rehabilitation team, which might include representatives from:**
  - **physical therapy**
  - **recreational therapy**
  - **social services**
  - **internal medicine**
  - **orthopedic surgery**
  - **prosthetists/orthotists**
  - **occupational therapy**
  - **rehabilitation nursing**
  - **speech therapy**
  - **neuropsychology**
  - **neurology**
  - **psychiatry**
- **The physiatrist is trained in writing prescriptions for specific exercise programs for maintaining and increasing range of motion, strengthening muscles, improving proprioception (awareness of joint position in space), muscle relaxation, and aerobic fitness, all in the context of improving function.**
- **Examples include strengthening and enhancing proprioception in a runner's sprained ankle, improving range of motion and preventing contracture in a spastic spinal-cord-injured patient, or providing optimal cardiopulmonary fitness in someone who has recently suffered a myocardial infarction.**
- **A physiatrist can also prescribe a host of assistive and adaptive equipment including gait and mobility aids, environmental control devices, communication aids, and various other tools to allow greater independence, optimal safety, and decreased energy expenditure in activities of daily living (ADLs)**

# Workplace Evaluation

- Work Injury Rehabilitation services are structured and goal-oriented programs designed to help people identify work capacities, regain functional skills and return to work after an injury.



# Industrial Injuries Are Costly

- \$190 billion in 2011
  - 46% wage/productivity loss
  - 28% medical expenses
  - 18% administrative costs
  - 6% employers uninsured costs

*National Safety Council 2013*

- Physiatrists frequently provide rehabilitation to all joints including but not limited to the neck, low back, knee, ankle, shoulder and wrist injuries.

- Physiatrists are uniquely qualified to perform comprehensive history and physical examinations required of the injured worker.
  - *Orthopedic Surgeon, for initial non operative musculoskeletal evaluations*
  - *Neurologist for traumatic brain injury or Nerve Conduction Studies/Needle EMG*
  - *Physical Therapy centers that are staffed with physical therapist creating and directing the plan of care*
- Physiatrists work closely with adjusters, nurse case managers and employers to limit multiple unnecessary referrals to other providers.
- Examples:

- **Physiatrists are skilled at ordering and supervising patient specific treatment programs that are cost effective (modalities and stretching and strengthening exercises) that can reduce patients pain in a matter of months vs. years of treatment in some cases.**

# Ancillary Costs

- PT v Chiropractic Care



- **Physiatrists believe in shared return to work philosophy early in the course of rehabilitation as it promotes positive patient self-image and limits long term disability.**

***“Aggressive early medical management by a specialist in physical medicine and rehabilitation: effect on lost time due to injuries in hospital employees.”***

*J Occup Med. 1990 Mar;32(3):241-4.*

- In a tertiary care hospital with 2700 employees a specialist in physical medicine and rehabilitation evaluated injured employees who were out of work for more than 2 days. Physician management emphasized increasing patient investment in the problem, early assessment of delayed recovery, and effective communication with the employer. There were 61 injuries averaging 6.7 days off per injury. In a previous year, 52 injuries averaged 11.8 days. Employees out for more than 2 days with back pain and seen by the physiatrist (52%) averaged 11 days off per injury whereas others averaged 14.9 days. In this hospital, early management by a specialist resulted in a substantial decrease in time off because of injury.

- Physiatrists are experts at assessing job restrictions to limit further injury and prolonged disability

# Referrals:

- Expedite care by increasing efficiency of case evaluation, treatment and surgical decision making

# The effect of required physiatrist consultation on surgery rates for back pain

- **STUDY DESIGN:** Prospective trial with insurance database and surveys.
- **OBJECTIVE:** This study was developed to determine whether an insurer rule requiring physiatrist consultation before nonurgent surgical consultation would affect surgery referrals and surgery rates.
- **SUMMARY OF BACKGROUND DATA:** Spine surgery rates are highly variable by region and increasing without evidence of a concordant decrease in the burden of disease. Efforts to curb misuse of surgery have not shown large changes, especially across different provider groups. As nonsurgical spine experts, physiatrists might provide patients with a different perspective on treatment options.
- **METHODS:** In 2007, the insurer required patients with nonurgent spine surgical consultations in a geographic region to first have a single visit with a physiatrist, who received extra compensation for the assessment. Surgical consultation and surgical rates results were compared between 2006-2007 and 2008-2010. An automated telephone survey of patients evaluated by physiatrists was performed to assess patient satisfaction.
- **RESULTS:** Physiatry referrals increased 70%, surgical referrals decreased 48%, and the total number of spine operations dropped 25%, with concomitant decreased overall cost. Although spinal fusion rates dropped, the percentage of fusion operations increased from 55% to 63% of all surgical procedures. Of 740 patients surveyed (48% response rate), 74% were satisfied or very satisfied with the physiatry consultation. Only 40% of patients who underwent previous spine surgery were satisfied. Although surgical rates decreased at all regional hospitals and all surgical groups, there were substantial shifts in market share.
- **CONCLUSION:** Mandatory physiatrist consultation prior to surgical consultation resulted in decreased surgical rates and continued patient satisfaction across a large region.

# Referrals To

- McKenna C1, Farber NJ, Eschbach KS, Collier VU. Arch Phys Med Rehabil. 2005 May;86(5):881-8. “Primary care practitioners' understanding of psychiatric practice: effects on intention to refer”
- Most respondents were likely to refer to psychiatrists, a wide variation existed in the types of patients referred. Physicians with a greater understanding of the scope of psychiatric practice were more likely to refer. Female physicians were more likely to refer than male physicians.
- **CONCLUSIONS:** There appears to be an association between an understanding of psychiatric practice and practitioners' willingness to refer to PM&R. Physicians and other providers should be educated about the benefits of referring patients to psychiatrists.

# Causation

- **Apportionment:** A way of figuring out how much of a permanent disability is due to a work injury and how much is due to other disabilities.
- **Legal causation:** A causal relationship between the accident and the work being performed. Additionally, a claimant must prove that the accident was within the time, place and circumstance of the employment. Legal causation focuses primarily on the accident itself. The employer's investigation and documentation of the accident and the type(s) of injury or injuries involved is the focus.
- **Medical causation:** Requires a connection between the accident and the type of injury or injuries. Medical causation is provided by the medical providers.

# Hill's Criteria for Determination of Causation

- 1. Strength of the association.
- 2. Consistency of the observed association.
- 3. Specificity
- 4. Temporality
- 5. Biological gradient or dose-response curve
- 6. Plausibility
- 7. Coherence
- 8. Experiment
- 9. Analogy

• *Hill AB. The Environment and Disease: Association or Causation? Proc Royal Society Med 58:295-300. 1965.*

# Costs

- Pharmacologic
- Interventional
- Modalities
- Alternative

# Dirty Drugs... Not so Cheap

- Drug spending increased 6.4% last year
- Pharmacy spending in work comp cases \$5-\$7 billion in 2014
- Between 2001 and 2008, narcotic prescriptions as a share of all drugs used to treat workplace injuries jumped 63 percent, according to insurance industry data.

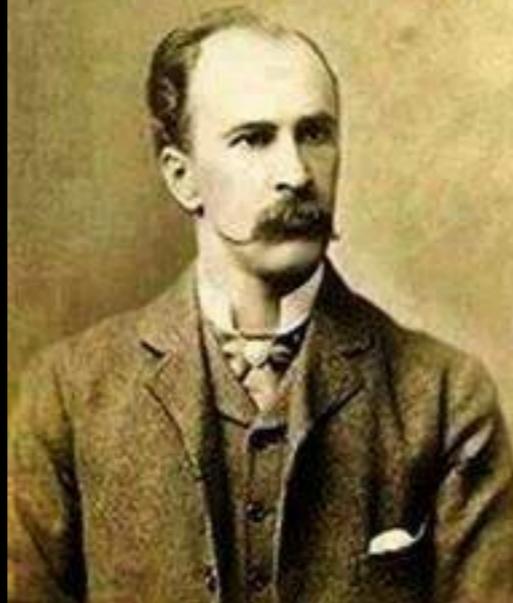
# Cost of Opioids in the Workplace

- Treatment expenses include medicine costs and lost wages. The stronger the opioid, the higher the expense.
- Average claim cost without use of opioids: \$13,000
- Cost with short-acting opioid like Percocet: \$39,000
- Cost with long-acting opioid like OxyContin: \$117,000

# Meds: What and When

- ~and when to stop

One of the first duties  
of the physician  
is to educate the masses  
not to take medicine



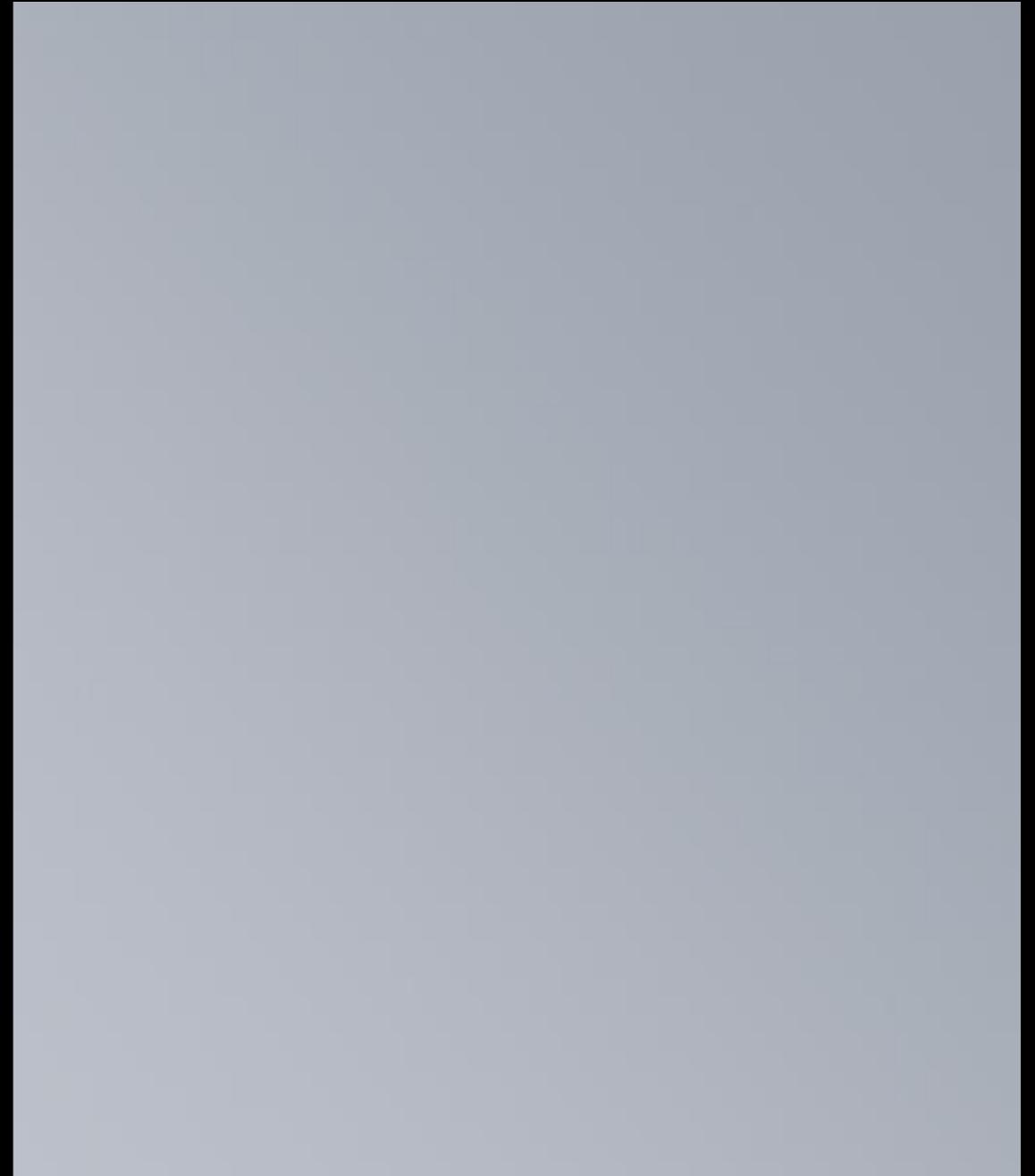
- William Osler -  
(1849 - 1919)

Described as the Father  
of Modern Medicine

# Medication cost comparisons

- NSAIDS
- Opioids
- Adjunctive

# Case Study #1



# Case Study #2

- *Physiatry Gone Awry*

# Case Study #3

- **Physiatry done right**

“Injections are the best thing ever invented for feeding doctors.”

– *Gabriel García Márquez (1928-?) Colombian writer*

# Interventional Treatment Cost Comparisons

Procedure	In office	ASC	+ASC Fee	TOTAL ASC
ESI 62310	\$247	\$107	\$301	\$408
Lumbar/Sacral Injection 64483	\$242	\$112	\$301	\$413
Paravertebral Injection 64493	\$181	\$93	\$301	\$394

***Medicare Nerve Block Cost Difference for 1st  
Procedure***

“The best doctors in the world are Doctor Diet,  
Doctor Quiet, and Doctor Merryman.”

– *Jonathan Swift (1667-1745) Irish-born English satirist*