Determining Causation Before Treatment

MSF 18th Annual Med Conf
1 June 2018
Joseph Erpelding, MD
Causation Before Treatment
What will we review today?

• Review a Reproducible Evidence-Based Method of Causation Analysis (*AMA Guides to the Evaluation of Disease and Injury Causation*, 2nd Ed, pp 598-600) - HOW

• Review WHEN and WHO
Musculoskeletal Occupational Medicine - Primary Goals

- **ACCURATE DIAGNOSIS**
- **CAUSATION ANALYSIS** (to determine who is responsible for costs of treatment)

- TREATMENT
- RETURN TO WORK
- IMPAIRMENT or DISABILITY
Musculoskeletal Occupational Medicine

- Accurate Diagnosis...supported by
  - History
  - Physical Exam
  - Objective Test Results (Xrays, Lab, MRI)
  - ICD Coding - helps to promote accurate Dx
    - REMEMBER
- Pain (symptom) is NOT a Diagnosis
CAUSATION ASSESSMENT METHOD

HOW

• See AMA Guides to the Evaluation of Disease and Injury Causation, 2 Ed, Ch 22.

• BRADFORD HILL Criteria
  • Temporality (onset of Symptoms)
  • Strength of Association (Mechanism of Injury)
  • Biologic Gradient (Objective ‘severity’)
  • Consonance with Literature
  • Biologic Credibility (concordance)
## Diagnosis/Causation (Hill Criteria)

*AMA Guides to the Evaluation of Disease & Injury Causation, 2nd Ed*

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“The greatest need is to establish an investigational phase in which evidence-based treatment can proceed and workup of causation can be appropriately undertaken” p 602 of AMA Guides...
CAUSATION ASSESSMENT EXAMPLE

• 56 yo male, delivers beer kegs (weigh ~162#), has one roll off of hand cart and lands on his Right foot, traps him for about 15 minutes before some one helps him.
  • Has obvious swelling of right foot, Xrays confirm no broken bones. Top of foot is numb.
  • FOUR months later states his Right hip pain is worse, and claims the accident aggravated his hip. Xrays demonstrate advanced arthritis.

• Doctor says the accident is the primary cause for his need for THA.
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CAUSATION ASSESSMENT EXAMPLE

- Investigation confirms prior LEFT THA on 5 yrs ago for FAI (dysplasia) and Xrays (5 yrs ago) confirm moderate OA and dysplasia on Right side - prior to the accident.

- Also had prior claim for Back injury with numbness in the right foot as a residual after non-operative treatment of sciatica, with resolution of pain, but residual numbness, with Impairment Rating provided.
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CAUSATION ASSESSMENT - HOW

- Encourage Providers to use an evidence-based method when providing an opinion on Causation - ASK “What is the basis of your opinion?”

- AMA Guides - Excellent Resource

- Bradford Hill Criteria

- QUESTIONS???
CAUSATION ASSESSMENT - WHO or WHEN

- DELAY in ONSET OF SYMPTOMS, or
- MECHANISM of Injury or EXPOSURE unclear
- MULTIPLE INJURIES
- OCCUPATIONAL EXPOSURE
CAUSATION ASSESSMENT
WHO or WHEN

- **Degenerative Biologic Conditions**
  - Rotator Cuff Disease
  - Degenerative Knee Meniscus Tears

- **Pre-existing Biologic Conditions**
  - Congenital Spinal Stenosis
  - Hip Dysplasia

- **Waddell’s Nonorganic Signs**
  - Can co-exist (Pain Behavior) with ‘real disease’
CAUSATION ASSESSMENT or IME

• Assessment or IME should be considered when there is:
  • A Failure to Respond to Treatment, or
  • A Failure to Return to Work
REASONS FOR FAILURE TO Rtn to Work (Failure of Treatment)

- Wrong Diagnosis
- Correct Diagnosis, Wrong Treatment
- Correct Diagnosis, Treatment Complication
- Correct Diagnosis and Treatment, Incurable Problem
- Correct Diagnosis and Treatment, NEW Problem

- REMEMBER - MT Treatment Guidelines
CAUSATION ASSESSMENT
WHO or WHEN - Review

- Onset of Symptoms delayed
- Mechanism of Injury Unclear
- Lack of Objective acute Findings (Normal Xrays or MRI - degenerative)
- Occupational Disease (Employment is Major contributing Cause, p 626 of AMA Guides...)

CAUSATION ASSESSMENT
WHO or WHEN - Review

- DIAGNOSIS is Degenerative or Pre-existing (Spinal congenital stenosis or Hip dysplasia, Patellar Malalignment, etc)

- Failure of Treatment

- Waddell’s Nonorganic Findings

- QUESTIONS??
CAUSATION BEFORE TREATMENT

SUMMARY

• ACCURATE DIAGNOSIS established during Investigational Phase of Care (ICD 10 Coding)
• Don’t hold up Objective Tests if needed (Xrays, MRI, etc)

• CAUSATION ANALYSIS using AMA Guides to the Evaluation of Disease and Injury Causation, 2\textsuperscript{nd} Ed, is encouraged

• TREATMENT Should be consistent with approved State or Federal Guidelines
CAUSATION BEFORE TREATMENT
Saves $$
CAUSATION ANALYSIS - HOW, WHO, WHEN - QUESTIONS?