

CAUSALITY

Determining Causality in Workers' Compensation

Objectives:

- Define an authorized treating physician.
- List the principles of risk assessment used to determine causality and apply them to a case.

DETERMINING CAUSALITY IN WORKERS' COMPENSATION

Risk-Assessment or Causal Relationships in everyday life

Wearing a seat belt.

Wearing a helmet for bike riding, motorcycles, skiing, horseback riding.

Causality Assessment in Medicine

Case #1 55 year old overweight male with HTN presents with severe back pain.

Case #2 25 year old female presents with severe low back pain.

Differential diagnosis

Case #1 abdominal aneurysm

Case #2 pelvic pathology

Workers' Compensation Causality

- Alleged relationship between the diagnosis and the work-related exposure.
- Estimate of the risk of developing the diagnosis from the actual work exposure.
- If the relationship has a greater than 50% probability then it is medically probable.

Causation Assessment

1. Record an occupational medical history including a detailed description of the incident reportedly causing the injury or a complete job description of all activities which could have contributed to the patient's symptoms. The description of job duties should include a list of physical activities required, the duration and frequency of these activities and the total time the individual has worked in the job position. At a minimum, the job activities description should consider specific hand tool use, driving or other skilled activities, approximate lifting estimations, description of the posture required in order to complete the job tasks and consideration of the force necessary for the job tasks.
2. Take a complete medical history including medical diseases past and present, and non-occupational activities which could have affected the

- complaint. Include hobbies involving the hands for upper extremity complaints and weekend sports activities for musculoskeletal injuries.
3. Establish a differential diagnosis for the patient using the complete history, physical exam findings, and the results of any preliminary diagnostic testing.
 4. Assess the medical probability of the relationship between the assumed diagnosis and the work-related exposure.

Case Examples

#1 Mesothelioma in a navy veteran who worked on ships in World War II.

Diagnosis is uniformly associated with asbestos exposure.

Asbestos exposure was common in this occupation.

#2 A worker slips on ice while delivering equipment and complains of medial knee pain.

Diagnosis possible medial collateral ligament strain.

Mechanism of injury – employee is not sure.

#3 Secretary develops carpal tunnel.

Risk Assessment Method

To assess causality you must apply traditional risk assessment techniques developed by Bradford-Hill.

1. Strength of the association: The study should show a significant relative risk for developing the disease in question when populations are exposed at a specific exposure level.
2. Consistency of the evidence: Studies with different populations exposed to similar work exposures should produce the same result.
3. Specificity of the result: Studies should be sufficiently controlled to prove that the exposure was the cause of the diagnosis, rather than other confounding exposures or disease entities.

4. Temporal Relationship: The timing of the study and follow-up investigation of the workers should be sufficient to identify the disease in question. Long latency disease studies should exclude those cases occurring too early to be related to the exposure identified in the study.
5. Biological gradient: Studies should show that the greater the exposure, the greater the likelihood of a particular disease or injury. In some cases the phenomenon is “all or none” and no gradient can be present.
6. Coherence: The proposed exposure should be biologically plausible and consistent with previous research. Naturally when an entirely new causal relationship is discovered, initial reports will not necessarily conform with previous literature on the subject.

Workers’ Compensation Statutes

Work related exposure must be the “proximate cause” of the disease or injury.

Proximate cause is defined in Black’s Law Dictionary as the last act “contributory to an injury, without which such injury would not have resulted. The dominant, moving or producing cause.”

Pre-Existing Medical Condition

A pre-existing medical condition which may pre-dispose the worker to an injury does not necessarily mean the case is not work-related. If the worker would not have the injury **without** the work-related event, the injury is most likely also work-related.

Egg shell skull case in legal theory.

Case example – Patient with a partial meniscus tear is hit in the leg with heavy equipment and falls, suffering a full thickness meniscus tear.

Physicians should discuss the impact of pre-existing disease or injury on the current work related condition.

Using Risk Assessment

Case example – A worker is exposed to levels of formaldehyde below the OSHA permitted limits.

1. The worker claims to have irritant-induced reactive airway disease.

2. The worker claims the formaldehyde aggravated his pre-existing asthma.

How would you prove or disprove these assertions?

Always answer this question: “Without the work-related exposure or accident, is it medically probable that the patient would have the current diagnosis and require treatment?”

Activities of Daily Living

Generally, if a worker is performing an activity he would normally be expected to perform in day-to-day tasks at home the injury will not be work-related.

Case – An executive suffers a heart attack while reviewing his routine, office e-mail.

Isolated Mental Impairment (no physical injury)

Pursuant to C.R.S. §8-41-301(2)(a), mental impairment:

“ . . . means a recognized, permanent disability arising from an accidental injury arising out of and in the course of employment when the accidental injury involves no physical injury and consists of a psychologically traumatic event that is generally outside of a workers’ usual experience and would evoke significant symptoms of distress in a worker in similar circumstances. A mental impairment shall not be considered to arise out of and in the course of employment if it results from a disciplinary action, work evaluation, job transfer, layoff, demotion, promotion, termination, retirement, or similar action taken in good faith by the employer.”

Remember the final determination of work-relatedness rests with the judicial system. This allows consideration of course and scope of duties, enforced safety standards, and location of injury.

Your medical diagnosis and causality discussion is essential to a work-related case.

STEPS IN CAUSALITY DETERMINATION	
1.	Establish diagnosis (or differential diagnosis if further testing required)
2.	Define Injury or Exposure For Exposures include <ul style="list-style-type: none"> ❖ Length of exposure ❖ Level of exposure (actual lifting required, amount of repetitive motion, special tool use, etc.) ❖ Comparison of workers' exposure to that of the normal population
3.	Discuss Intervening Factors Concurrent non-work-related injuries or disease processes, pre-existing impairment, or disease related activities outside of work, sports, hobbies, etc.
4.	Explain any scientific evidence supporting a cause and effect relationship between the diagnosis and the exposure or injury
5.	Assign a medical probability level to the case in question <ul style="list-style-type: none"> ❖ Medically probable >50% likely ❖ Medically possible ≤ 50 likely