

# SYSTEMATIC REVIEW MODULE

## Chiropractic

### Objectives:

At the Completion of this unit, participants will be able to:

1. Assess the validity of a Systematic Review
2. Discuss the interpretation of a Forest Plot
3. Describe the influence of heterogeneity on interpretation of outcomes
4. Define publication bias and how it is assessed

### Assignment:

#### **1 – Read the Clinical Scenario**

**2 - Read Chapter 22 in the User’s Guide:** Murad M, Jaeschke R, Devereaux P, Prasad K, Carrasco-Labra A, Agoritsas T, Cook DJ, Guyatt G. The Process of a Systematic Review and Meta-analysis. In: Guyatt G, Rennie D, Meade MO, Cook DJ. eds. *Users' Guides to the Medical Literature: A Manual for Evidence-Based Clinical Practice, 3rd ed* New York, NY: 2015 McGraw-Hill.

**3 - Read Chapter 23 in the User’s Guide:** Murad M, Montori VM, Ioannidis JA, Neumann I, Hatala R, Meade MO, Devereaux P, Wyer P, Guyatt G. Understanding and Applying the Results of a Systematic Review and Meta-analysis. In: Guyatt G, Rennie D, Meade MO, Cook DJ. eds. *Users' Guides to the Medical Literature: A Manual for Evidence-Based Clinical Practice, 3rd ed* New York, NY: 2015 McGraw-Hill.

**4 – Critically appraise the following paper using the supplied validity questionnaire.** Association of Spinal Manipulative Therapy with Clinical Benefit and Harm for Acute Low Back Pain Systematic Review and Meta-analysis. *JAMA*. 2017; 317(14):1451–1460.

**5 – Return to the clinical scenario.** Be prepared to discuss the difference between statistical and clinical significance, minimal clinically important differences, and the role of shared decision making,

### Clinical Scenario:

You are the only chiropractor working in a large Community Health Center. During a provider meeting a discussion on managing patients with acute back pain is starting to become a little tense. One of your colleague’s insists that since most acute back pain resolves on its own there is no reason to initiate manipulative therapy. You are pretty insistent that if desired by the patient your care provides clinical benefit.

You offer to provide evidence to “better inform the discussion.”

Using PubMed you search “Acute Low Back Pain” and “Manipulation” using limiters to recent 5 years and review articles. You identify the paper “Association of Spinal

Manipulative Therapy with Clinical Benefit and Harm for Acute Low Back Pain Systematic Review and Meta-analysis.”

Utilizing the outcomes from the article prepare to discuss the difference between statistical and clinical significance, minimal clinically important differences, and the role of shared decision making,

**Enclosed Materials:**

1. Specific article pertaining to this year’s module.  
Paige NM, Miake-Lye IM, Booth MS, Beroes JM, Mardian AS, Dougherty P, Branson R, Tang B, Morton SC, Shekelle PG. Association of Spinal Manipulative Therapy With Clinical Benefit and Harm for Acute Low Back Pain Systematic Review and Meta-analysis. *JAMA*. 2017;317(14):1451–1460.
2. Worksheet for the evaluation of a Systematic Review