SYSTEMATIC REVIEWS

Objectives:

To learn to critically appraise a systematic review, and to apply the results to clinical practice.

This includes:

- Assessing the study’s credibility
- Rating the quality of evidence
- Applying the evidence to clinical practice

Assignment:

1. Read the clinical scenario
2. Read the attached guidelines for reading systematic reviews
3. Critically appraise the attached article using the worksheet
4. Decide how you would respond to the problem posed in the clinical scenario

Clinical Scenario:

You are an orthopaedic surgeon in an academic level I trauma centre. You have two junior residents working with you who have been discussing a case and would like your input.

The patient is a healthy 28-year-old male presenting with a closed tibial shaft fracture from a sports-related injury. The patient is self-employed as a landscaper, which requires him to stand and walk for long periods of time, and carry heavy objects. He has expressed that he wants to return to work as soon as possible to avoid economic impacts on his business.

Both residents agree that the fracture should be treated with intramedullary nailing, but one resident also suggested that the patient try low-intensity pulsed ultrasound (LIPUS) because she read a randomized trial that concluded LIPUS can speed fracture healing and return to work. The other resident disagrees. He read a different randomized trial that did not show a significant difference between groups. The residents ask you whether they should recommend LIPUS to this patient. You refer the residents to the recent systematic review and meta-analysis on LIPUS for bone healing.

Enclosed Materials: