Critical Appraisal of a Prognosis Paper

Goal:
Participants will be able to critically appraise an article addressing prognosis.

Reference (Further Reading):
Guyatt GH, Rennie D, Meade M, Cook DJ. Editors. Users' Guides to the Medical Literature: A Manual for Evidence Based Clinical Practice, 3rd Edition, New York, NY: The McGraw-Hill Companies, Inc.

Available here:
http://jamaevidence.mhmedical.com/book.aspx?bookID=847

Chapter 20: Prognosis

Educational Exercise:
1. Read the Users' Guides to the Medical Literature reference chapter (listed above)
2. Read the Clinical Scenario (below)
3. Read relevant article
4. Complete the appraisal worksheet

Clinical Scenario:
Jenny is a 35-year-old who comes to your office complaining of low back pain. She related that the pain began a few days ago while she was making her bed and felt a sharp "stab" in her right lower back (just above the iliac crest). She could not go to work the day the episode started, but she has since returned. She describes the pain as a dull and achy (2/10) and occasionally sharp (4/10) depending on her movements but it does not radiate. She has been finding that a hot pack gives her some temporary relief. Exam findings were unremarkable. Jenny has not gone to any other provider to seek treatment yet; she wants to know how serious this pain is and if she'll continue to have it indefinitely.

After searching in PubMed 'clinical queries,' you find the article:

Henschke et al. Prognosis in patients with recent onset low back pain in Australian primary care: inception cohort study. BMJ. 2008. 337:a171.

You scan the article and it appears relevant to your clinical scenario.

CRITICAL REVIEW FORM: PROGNOSIS

Identify and outline your clinical question in plain language:

Build a PICO:

P	
I	
C	
O	

Databases Searched:

Resource Acquired:

Are the results valid?	
Was the sample of patients representative?	
Were patients sufficiently homogeneous with respect to prognostic risk?	
Was follow-up complete?	

Were objective and unbiased outcome criteria used?	

What are the results?	
How likely are the outcomes over time?	
How precise are the estimates of likelihood?	

How can I apply the results to patient care?	
Were the study patients and their management similar to my own?	

Strength of Evidence:

|---|

Low Quality   High Quality

How does this apply to my patient?

CRITICAL REVIEW FORM: PROGNOSIS

Identify and outline your clinical question in plain language:

What is the prognosis for patients with acute low back pain?

Build a PICO:

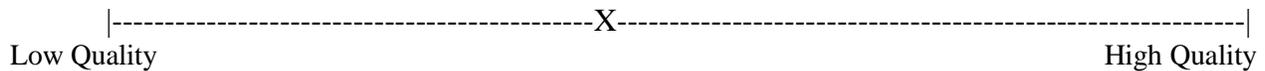| P	Acute low back pain
I	Any
C	N/A
O	Symptom resolution

Databases Searched:

PubMed

Resource Acquired:

Prognosis in patients with recent onset low back pain in Australian primary care: inception cohort study

Are the results valid?

Was the sample of patients representative?	Somewhat. The lower half of the socioeconomically disadvantaged was under-represented at 29.8% (21.4% in 1st quarter and 8.4% in the 2nd quarter).
Were patients sufficiently homogeneous with respect to prognostic risk?	Yes, inclusion/exclusion criteria rendered a homogeneous group for further analysis of seven factors previously suggested to be associated with poor outcome.
Was follow-up complete?	Yes, 12 month follow-up included 97.4% of participants.
Were objective and unbiased outcome criteria used?	Yes, pain intensity, disability and work status were all outcomes evaluated. There could have been some bias introduced in collection methods since follow-up assessments were done by self-reported telephone interviews.

What are the results?	
How likely are the outcomes over time?	The probability of returning to pre-back pain work hours and duties was 74.6% at 6 weeks, 83.2% at 12 weeks, and 89.5% at 12 months. Probability of having no disability was 54.9% at 6 weeks, 73.3% at 12 weeks, and 83.3% at 12 months. Pain-free probability was 39.9% at 6 weeks, 58.2% at 12 weeks, and 72.5% at 12 months. Within all dimensions, the probability of recovery 6 weeks after presentation was 39%. By 12 weeks, 57.4% and 71.8% by 12 months.
How precise are the estimates of likelihood?	It's hard to say as the results are presented descriptively (with a Kaplan-Meier curve).
How can I apply the results to patient care?	
Were the study patients and their management similar to my own?	Yes, except only 3% of the participants were being treated by a chiropractor.

Strength of Evidence:

|---X--|
Low Quality   High Quality

How does this application apply to my patient?

How does this apply to my patient?

-About 1/3 of patients did not recover from their presenting episode within a year of onset, but prognosis was dependent on age, intensity of pain, feelings of depression, risk of persistence, low back pain in compensation cases, days of reduced activity and duration of the episode. You may elect to educate your patient about the variables, or reassure her that her prognosis is good based on some variables (age, intensity of pain, etc.) and encourage her to stay upbeat and active to influence others (and her overall prognosis).