Using systematic literature surveillance

Evidence-based medicine (EBM) involves decision-making based on the systematic identification and critical appraisal of research evidence in combination with clinical expertise and patient values. Two important EBM tools are systematic reviews and an activity known as systematic literature surveillance.

Surveillance complements commonly used resources. Systematic reviews answer a precisely defined question using explicit methods to search for, select, evaluate, and synthesize available evidence. Though extremely valuable, new systematic reviews cannot be produced at a rate that keeps pace with new research information.

Systematic literature surveillance, by contrast, starts with the evidence and uses explicit, protocol-based methods to select, evaluate, and synthesize new research information. It is an efficient way to find answers to numerous clinical questions, and thus complements systematic reviews for supporting point-of-care clinical references. Both tools should be an indispensable part of supporting clinical practice.

It can dramatically change knowledge. Imagine being faced with a patient who has a clinically significant head injury and not having immediate specialty backup. Steroid administration has been promoted to reduce cerebral edema. You search the Cochrane Library and find a systematic review of 19 randomized trials with 2295 patients. The review concludes that evidence is insufficient to rule out moderate benefits or moderate harms. A source complementing systematic reviews with systematic literature surveillance would include a more recent randomized trial with 10,008 patients showing that steroids significantly increase mortality at 2 weeks.

And it’s efficient. Because each article can be identified and evaluated “once”—rather than repeatedly for separate questions posed in systematic reviews—systematic literature surveillance is a more efficient means for answering a large number of questions. It may be used for clinician alerting/newsletter services or for updating knowledge syntheses in a clinical reference.

To find the best available evidence during clinical practice, the evidence-based clinician should use references that synthesize the results of systematic literature surveillance and systematic reviews.

REFERENCES