

◆ Plenary Presentation: Can Clinicians Read Your Journal? Peer-reviewed Medical Journalism in the Age of Clinical Evidence

Speaker:

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Clinicians aspire to base clinical decisions on evidence from clinical research, but there is a gap between the publication of research results and their incorporation into clinical practice. In his plenary address, Peter Wyer suggested that this “evidence-transfer gap” is caused by clinicians’ difficulty in extracting clinically useful information from research articles. Wyer, a consulting editor for *Annals of Emergency Medicine*, discussed how journals could incorporate approaches derived from evidence-based medicine to provide information in a form that clinicians can use.

The most obvious cause of the evidence-transfer gap is the explosion of medical resources. Clinicians need to master the use of information technology and resources, but such skills usually are not part of the medical curriculum. As a result, clinicians cannot keep up with the quantity of information available.

The form of clinical information can be even more problematic because of a fundamental difference between researchers and clinicians in reading and using reports of medical research. A clinician reads to relate information to the next patient; he or she is looking for clinically applicable results. A researcher reads to relate information to the next study: information important to the clinician is secondary to whether the

research question has been exhausted. The difference in orientation and perspective affects the researcher’s choices when writing a manuscript and therefore the usefulness of an article to the clinician.

To compound the problem, clinicians are not taught how to translate from the language of research to the language of clinical practice. As a shortcut to reading journal articles not written for them, most clinicians adopt “conventional” reading priorities that involve reading the abstract for the author’s conclusions and then reading the results and discussion for confirmation of the conclusions. A common complaint by clinicians is the difficulty of sifting through often opposing conclusions regarding the same research question. Research results, however, are less variable than the conclusions drawn from them. Clinicians therefore need to learn to use “educated” reading priorities that focus on an analysis of the methods and results (the evidence) and then a reading of the discussion for information relevant to patient care.

What can journals do to help resolve the barriers to researcher-clinician communication? One approach is to train researchers to consider clinicians’ needs when writing research reports. “Intrinsic translation aids”, such as the CONSORT (Consolidated Standards of Reporting Trials) recommendations, emphasize incorporating clinically useful information into reports. As Wyer acknowledged, however, meeting clinicians’ needs is not the goal of research, and reforming authors may not be practical. Enforcing submission guidelines is difficult, and a journal risks a drop in submissions if its requirements become too idiosyncratic.

A more achievable alternative is the education and reform of clinician readers. Following the example of the *ACP Journal Club*, journals could include review articles

and “clinicians’ abstracts” that summarize clinically important results. Such “extrinsic translation aids” would train clinicians in translating from the researcher-to-researcher orientation of most reports. To involve readers further, journals should provide expanded and linked online access. Links between related studies within a journal and to secondary resources and even related articles in other journals are effective and practical.

As a case study, Wyer described an initiative at *Annals of Emergency Medicine* to use evidence-based medicine to educate the journal’s clinician readers. The journal introduced instructional reviews that function as a guide for selecting and applying research results to clinical practice. The reviews include summaries of specific topics and walk the reader through analyses of clinical questions. To complement the reviews, skills articles were added to address key reading and appraisal skills, and a feedback component invites readers to submit comments or questions related to a published article. The journal also uses formatted electronic access to link related articles and is working on an electronic database of abstracts and review articles that will provide an independent assessment of relevant information.

Wyer acknowledged that those innovations are not perfect. The instructional reviews, for example, are difficult to write; and, although the reviews are more thorough than what clinicians could do for themselves, they are not systematic meta-analyses of problems. Nevertheless, the journal’s evidence-based initiative demonstrates how a journal can involve its clinician readers and extend its instructional mission to bridge the communication gap between researcher and clinician. 