

The Institute of Medicine — now known as the National Academy of Medicine — once stated that scientific knowledge about best care within the United States healthcare system is not applied systematically or expeditiously to clinical practice. In an oft-quoted passage, it estimated that new knowledge from medical studies generally takes 17 years to be incorporated into clinical practice. Even then, implementation is highly uneven.

This “new knowledge” consists of clinical practice for which there is “strong scientific evidence and a high degree of expert consensus.” The Institute of Medicine concluded that many doctors are either unaware of evidence-based practices or have insufficient “tools and incentives” to implement these practices into their patient care. From this warning, at least in part, the field of “implementation science” was born.

In 2007, the National Institutes of Health hosted its first implementation science conference. According to NIH, implementation science is “the study of methods to promote the adoption and integration of evidence-based practices, interventions, and policies into routine health care and public health settings.”

Twenty-two years later, that chasm has not been significantly reduced, according to Rita Rubin of the Journal of the American Medical Association (JAMA). Today, it still takes an average of 17 years for evidence to change practice and only one in five evidence-based interventions are translated to routine clinical practice. For historically marginalized or underserved populations, the chasm is even wider.

Implementation science researchers also study the most cost-effective methods to disseminate the relevant information and implement specific changes in practice. As Dr. Rachel Issaka, a gastroenterologist, aptly put it in Rubin’s JAMA article, “implementation science is really trying to close the gap between what we know and what we do.”

One example discussed in the World Journal of Surgery relates to the appropriate treatment for certain types of rib injuries. In patients with certain types of multiple traumatic rib fractures, the chest wall may become unstable and move in a way that significantly interferes with breathing, a phenomenon called flail chest.

Flail chest is a medical emergency and its



FASTER IMPLEMENTATION

Patients are receiving substandard care because of insufficient knowledge

By **THOMAS A. DEMETRIO** and **KENNETH T. LUMB**

treatment ranges from supplemental oxygen to pulmonary hygiene or surgical stabilization of the fractures. Surgery is known to lead to faster recovery, fewer respiratory effects and shorter ICU stays. Yet, it is underutilized. Dutch researchers reported in World Journal of Surgery that one of main barriers to this evidence-based treatment was lack of knowledge among certain clinicians. In short, patients were receiving substandard care because certain doctors had substandard knowledge.

In Illinois, possessing and using appropriate knowledge is part of every physician’s standard of care. Professional negligence is defined as the failure to do something that a reasonably careful physician would do, or the doing of something that a reasonably careful physician would not do, under similar circumstances.

But the standard of care isn’t just about what a doctor does or doesn’t do. It’s also about what he knows and doesn’t know. An Illinois physician is required to “possess and use” the knowledge, skill and care ordinarily used by a reasonably careful physician (Illinois Pattern Jury Instructions-Civil, 105.01 Professional Negligence-Duty) and the implementation science literature provides a relatively unmined source of information for medical negligence lawyers on that topic.

Consider the following questions for a defendant physician who failed to order a surgical consultation for a patient with flail chest.

Isn’t it expected for doctors to continue to learn throughout their careers? Don’t we expect reasonably careful doctors to stay abreast of current studies, articles and thinking in their specialty? What are the ways you have stayed abreast of current practice?

Also, do you agree that reasonably careful physicians should implement evidence-based practices and interventions into their patient practice? Isn’t reviewing professional literature and seeking out continuing medical education through lectures and conferences one way to learn about evidence-based practices?

The answers to these questions, combined with relevant implementation of science literature, will go a long way toward proving not only what should have been done, but also why it wasn’t. CL

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