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COMMENTARY

The medico-legal value of consensus statements

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The volume of medical literature that has been published in the last two decades is legion. For example, a focused PubMed search on child maltreatment literature from 1900 to 1995 yields approximately 9,900 pertinent articles in the MEDLINE archives[1] [1]; however the same search for the last two decades, 1996 to 2015, yields *almost 18,400 articles*. In two decades, we have generated twice as much ink as several generations and nearly a century of physicians.

The explosion of published medical literature in the last two decades has posed an intellectual double-edge sword. Rapid dissemination of the most current research and understanding has spawned a world of enhanced knowledge. But the mere volume of published literature has created significant challenges for even subject-matter experts in staying abreast of topics in their field. Additionally, the advent of open-access publications has further diluted the significance of peer review as a quality-assurance mechanism and has resulted in forums where unproven or untested theories can attain a moniker of validity for a small price [2].

In the current age of evidence-based medicine, evidence-based ratings scales or hierarchies of quality of evidence demote consensus statements and expert opinions to the lowest rank of medical evidence [3]. Yet in law, consensus statements and expert opinions (like those provided by intermediate-level appellate judge panels or Supreme Court justices) constitute the highest level of legal principles. This manifests another example of the dichotomous values of medicine and law: *doctors and lawyers speak different languages*, *work in different disciplinary frameworks*, *and have different end goals*. In the perceptive words of the Honorable Judge Barbara Rothstein [4], quoting the British mystery writer R. Austin Freeman's *The Eye of Osiris*, 1911:

> *The scientific outlook is radically different from the legal. The man of science relies on his own knowledge and observation and judgment, and disregards testimony.... A court of law must decide according to the evidence which is before it; and that evidence is of the nature of sworn testimony. If a witness is prepared to swear that black is white and no evidence to the contrary is offered, the evidence before the Court is that black is white, and the Court must deduce accordingly.*

With the intersection of law and medicine only widening, from mental illness to patents to toxic torts to medical malpractice, child maltreatment represents but another area where the efforts of sworn testimony must be "adjusted." Courts, however, are ill-equipped to do that "adjusting." As Judge Richard Posner stated in a case examining the legality of professional society regulation of its members' expert testimony [5]:

[1] Using the search terms "child abuse" [Mesh] OR "child abuse" OR "child maltreatment," 9,969 articles result. However child abuse as a medical subject term was introduced into the MEDLINE literature in 1964. Prior to that date, results that use the term "child abuse" or "child maltreatment" in the title or abstract were captured. Most of the results prior to 1966 (the old MEDLINE records) do not have abstracts, so we were reliant on those terms appearing in the title.

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[T]his kind of professional self-regulation rather furthers than impedes the cause of justice…. Judges are not experts in any field except law. Much escapes us, especially in a highly technical field, such as neurosurgery. When a member of a prestigious professional association makes representations not on their face absurd, such as that a majority of neurosurgeons believe that a particular type of mishap is invariably the result of surgical negligence, the judge may have no basis for questioning the belief, even if the defendant's expert testifies to the contrary…. Judges need the help of professional associations in screening experts. The American Association of Neurological Surgeons knows a great deal more about anterior cervical fusion than any judge.

The legal implications of professional society consensus statements are significant. Albeit low on the hierarchy of evidence-based medicine ratings, professional society consensus statements represent the highest level of medico-legal evidence. If thorough and well-conducted, they can impartially educate the court on the best evidence-based medical literature on a particular topic. More important, they can arguably constitute prima facie evidence of "general acceptance" of a medical community's position on a particular topic, and thus aid the court in admissibility determinations of expert testimony on that topic [6, 7]. At the very minimum, professional society consensus statements can serve as strong cross-examination tools for fringe hypotheses that lie outside of mainstream medical opinion.

Thus, I applaud the efforts of Servaes et al. [8] in this consensus statement. It serves an important purpose in clarifying the most reliable literature on a purportedly contentious topic — rickets in children with multiple fractures who are suspected of being abused. But one would hope it does more than that. One would hope that this consensus statement provides an impetus and example to other professional societies of how they can impartially assist courts on matters outside the courts' expertise. One would hope.

Compliance with ethical standards

Conflicts of interest Dr. Narang has been compensated as an expert consultant/witness in child maltreatment cases.

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