



CONSIDERATIONS FOR IDENTIFYING STANDARDS OF CARE

Report of the FSMB Ethics and Professionalism Committee *Adopted by the FSMB House of Delegates, May 2023*

Please Note: This report provides guidance for state medical boards that is based on the Committee’s review of the subject matter and the expertise of its members. No recommendation contained herein should be construed as mandating any action on the part of a state medical board. Any comments or recommendations that follow are intended to be discretionary.

Section 1: Introduction

As vital lines of protection for patients, the nation’s state and territorial medical boards (“the boards”) have an obligation consistent with their statutory mission to identify, investigate and discipline physicians who violate state medical practice acts, including those who provide care that falls below acceptable standards. Members of state medical boards typically assess and determine whether care rendered by licensees is comparable to care provided by similarly qualified and reasonable physicians under the same or similar circumstances. In many instances, such a determination can be made using the experience and expertise of members of the medical board and board staff. In others, it can be challenging to identify and determine the appropriate standard of care under specific circumstances.

To assist state medical boards in overcoming challenges related to identification of a standard of care, the Chair of the Federation of State Medical Boards (FSMB), Sarvam TerKonda, MD, tasked the FSMB’s Ethics and Professionalism Committee (“the Committee”) in May of 2022 with providing guidance to member boards on the assessment of standards of care for use in quality-of-care cases. Identifying the standard of care often depends upon convincing and consistent testimony from a credible expert medical witness (“medical expert”). As such, state medical boards may need to review the qualifications of medical experts prior to admitting their testimony and the credibility and accuracy of the testimony provided. The purpose of this document is to provide guidance to state medical boards for identifying standards of care, assessing care provided against these standards, and defining cogent, consistent qualifications and expectations for physicians who seek to serve as medical experts.

Section 2: The Importance of Medical “Standards of Care”

In medical malpractice law, the standard of care is generally held to be the minimally competent care that physicians must provide to meet the quality of care that is required by law.¹ Standards of care help promote consistency between members of the same medical community and are usually determined by answering a simple question: “What would a similarly qualified and reasonable medical professional do under the same circumstances?”² When standards of care are established, states strictly hold physicians to them and may initiate disciplinary action against licensees for failing to adhere to the determined standards of care.³ A state’s Medical Practice Act, codified within state statutes, may contain definitions of the standard of care that guide medical practice within the state. In quality-of-care cases, medical boards must establish that the physician’s conduct failed to meet the appropriate standard of care.⁴ Unlike medical malpractice actions,⁵ quality-of-care cases do not typically require proof of negligence or actual patient harm but still require lengthy investigation and discovery periods to uncover any deviations from the standard of care.⁶ Although a standard codified in a state’s Medical Practice Act may guide a state medical board’s investigation into a physician’s conduct, the codified standard may not directly address the medical conduct at issue. State medical boards, therefore, are usually able to consider information outside the scope of statutory law when determining the relevant standard of care to apply in a quality-of-care case.

In instances where the standard of care is unclear or difficult to identify and determine, it is essential that state medical boards use all medical and scientific resources at their disposal to establish a standard, rather than succumb to pressure from vocal individuals or special interest groups. Regardless of what such individuals or groups may argue, there is a true standard of care that can be identified in all instances that may be determined through appeal to appropriate evidence and expertise. To assist in determining the standard of care in more challenging cases, the board may request that a medical expert interpret the available guidelines or evidence based on their own knowledge and practical experience of what the relevant standard of care is. In some instances, more than one expert may be necessary.

Section 3: Obtaining and Working with Medical Experts in Quality-of-Care Cases

In cases where the board seeks opinions from external medical experts, it usually consults with medical consultants, external organizations or volunteer licensees.⁷ State medical boards may

¹ Hall v. Hilburn, 466 So. 2d 856 (Miss. 1985)

² *HOW IS THE STANDARD OF CARE DETERMINED?*, GILMAN & BEDIGAN, LLC (last accessed Jul. 27, 2022), at <https://www.gilmanbedigian.com/how-is-the-standard-of-care-determined/>.

³ Md. Code Ann. HEALTH-OCC. § 14-404 (2013). Nothing in this subsection shall be deemed to release a licensee from the duty to exercise a professional standard of care when evaluating a patient’s medical condition. *Id.*

⁴ Jacqueline Landess, *State Medical Boards, Licensure, and Discipline in the United States*, 17 AMER. PSYCH. PUBL’N 337, 339 (2019).

⁵ *E.g.* 225 Ill. Comp. Stat. 60 /1 (2022) (incorporating the state of Illinois’ Medical Practice Act into the state’s legislative statutory compilation).

⁶ Off. of Inspector Gen., U.S. DEP’T OF HEALTH & HUMAN SERVS., Pub. No. OEI-01- 93-00020, *Federal Initiatives To Improve State Medical Boards’ Performance* 5 (1993), available at <http://oig.hhs.gov/oei/reports/oei-01-93-00020.pdf>

⁷ Michael Brennan et al., *Finding and Researching Experts and Their Testimony*, LexisNexis 1 (2009).

sometimes experience challenges in obtaining qualified medical experts due to the experts' availability, legislative restrictions on the board's ability to select an expert, and experts' reluctance to testify against their peers or be involved in a disciplinary hearing.⁸ Medical boards report using a variety of approaches to solicit experts, including:⁹

- Advertisements in board newsletters and bulletins
- A tab on the top or side banner of a board's website homepage
- Educational videos about the need for expert reviews, how they should be conducted and how licensees can get involved
- Recruitment forms on the board's website, often in a "board opportunities" section
- Information provided in an "About the Board" section of board's website
- Postings in "News," "Notices" or "Special Topics" sections of the board's website
- An email address provided where expressions of interest can be sent

Because the typical definition of the standard of care is how "similarly qualified practitioners would have managed the patient's care under the same or similar circumstances,"¹⁰ a state medical board will often request medical experts to first establish their qualifications to testify on the matter at hand before considering the expert's testimony. States do not have a single standardized procedure to assess experts or their testimony but may consult a variety of resources to determine how to assess expert qualifications and analyze the information provided by experts.

Once a board identifies a physician who may be able to serve as an expert, the physician should be trained to testify in a quality-of-care case. Such training may include informing licensees about anticipated cross-examination, providing reading material on the role of a medical expert, and guiding the expert through bias mitigation and conflict of interest challenges,¹¹ including professional challenges related to competition between or among practitioners and the challenge of avoiding the role of advocate for the party on whose behalf the expert is providing testimony.¹² Potential experts should also be aware of the ethical considerations involved in providing testimony, including:¹³

- Consequences of the testimony for the parties concerned;
- Established legal, ethical and professional standards regarding the provision of medical testimony;
- Rights of all parties;

⁸ Federation of State Medical Boards, "Board Practices Regarding Expert Reviews in Quality-of-Care Cases: A Report of the FSMB Ethics and Professionalism Committee" (2020).

⁹ *Id.*

¹⁰ *Medical Liability/Malpractice ADR and Screening Panels Statutes*, NAT'L CONF. OF STATE LEGIS. (last visited Jul 25, 2022) at <https://www.ncsl.org/research/financial-services-and-commerce/medical-liability-malpractice-adr-and-screening-panels-statutes.aspx>.

¹¹ Patrick F. Balestrieri & Thomas W. Mansfield. *Advice for Identifying, Recruiting and Training Medical Expert Witnesses in Quality of Care Cases*, 105 J. of Med. Reg'n 20, 22 (2019).

¹² Williams MA, Mackin GA, Beresford HR, et al. American Academy of Neurology qualifications and guidelines for the physician expert witness. *Neurology* 2006; 66:13–14

¹³ Joseph S. Kass & Rachel V. Rose, Ethical Challenges for the Medical Expert Witness, 18 AMER. MED. ASS'N J. OF ETHICS 201 (2016)

- Relevant professional virtues, including trustworthiness, integrity, discernment, compassion and conscientiousness;^{14,15} and
- Fiduciary duties and special professional obligations, such as beneficence and nonmaleficence.

Once an appropriate medical expert is identified, boards may provide that expert with information related to the case, including copies of the complaint, physician response(s) to the complaint and all relevant medical records.¹⁶ Boards may also wish to consider whether portions of complaints or medical records which are not relevant to determining the standard of care, but which may be potentially biasing against a subject physician or complainant, should be redacted prior to being provided to the expert witness. Using the information provided, medical experts may orally explain or compile a written report of their opinion about whether the physician in question departed from, or failed to adhere to, the standard of care in the state. When drafting a written report, the expert should include:

- A summary of the conduct (case) in question;
- A statement of whether the expert is able to provide an informed opinion for the case based on the information provided;
- A summary of the expert’s opinion on what the relevant standard of care is;
- A rationale for the expert’s opinion, including references to the expert’s qualifications, professional experience and knowledge; and
- Any relevant concerns that the expert has regarding the conduct in question.¹⁷

In determining whether disciplinary action is appropriate in a quality-of-care case, state medical boards may seek an opinion from an expert witness that helps differentiate between various outcomes, including reasonable departures from the standard of care that are justified based on the nature of the patient’s presenting condition; inappropriate departures from the standard of care; and gross malpractice, typically defined as wanton disregard for the patient’s wellbeing.

Section 4: Determining an Appropriate Medical Expert Using Specialty Guidelines

State medical boards often consider documented standard of care guidelines published by medical specialty societies to develop the applicable standard of care. Specialty care guidelines can include requirements for documentation, evaluation and reevaluation procedures, treatment time, and treatment procedures within a specific specialty.¹⁸ Specialty societies may also create and distribute clinical practice guidelines, which offer evidence-based, peer-reviewed

¹⁴ Bain LE. Revisiting the need for virtue in medical practice: a reflection upon the teaching of Edmund Pellegrino. *Philos Ethics Humanit Med* 13, 4 (2018). <https://doi.org/10.1186/s13010-018-0057-0>

¹⁵ Gardiner P. A virtue ethics approach to moral dilemmas in medicine. *J Med Ethics* 2003; 29: 297-302

¹⁶ *Id.* at 23.

¹⁷ For an example of a state medical board’s guidance for medical experts, see *Expert Reviewer Manual*, North Carolina Med. Bd. 1 (May 2019).

¹⁸ Md. Code Ann. HEALTH-OCC §§13-206, 13-309, & 13-310 (2022).

recommendations and are intended for physicians to consider when evaluating patients.¹⁹ Third-party research organizations, including the Agency for Healthcare Research and Quality,²⁰ the National Academy of Medicine,²¹ and the Centers for Disease Control and Prevention, as well as state governments, medical malpractice liability insurers and health insurance companies also publish clinical practice guidelines.²² Upon consideration of externally published clinical practice guidelines, a state medical board may determine that one or more of these guidelines provides a clear and applicable standard of care to govern the conduct in question. By consistently appealing to clinical practice guidelines in medical review decisions, medical boards may decrease inappropriate variations in care and promote more uniform standards of physician conduct within and across states.²³

A variety of medical specialty society organizations establish criteria that must be met before a member may appear as a medical expert in quality-of-care cases and they establish clear guidelines for how a qualified medical expert should describe the relevant standard of care during testimony. For example, the American Academy of Pediatrics, the American College of Emergency Physicians and the American Society of Anesthesiologists periodically revise and update the qualifications that a specialist must hold prior to testifying as a medical expert. Because physicians who serve as experts have an obligation to present complete, accurate and unbiased information,²⁴ the criteria set by specialty societies can provide state medical boards with a clearer understanding that each expert has sufficiently proven they are qualified to testify regarding the specialty in question. These criteria can also be used as guiding principles for state medical boards when developing their own threshold requirements for medical experts.

The American Academy of Pediatrics (AAP) requires medical experts who appear in all legal venues (including pretrial consultations, civil suits, criminal legal proceedings or other legal proceedings) to hold a current, valid and unrestricted medical license in the state(s) in which they practice medicine, and to be board certified by a member board of the American Board of Medical Specialties or a specialty certifying board of the American Osteopathic Association.²⁵ Additionally, the AAP requires experts to acknowledge that their expert opinion is based on limited information or that they are providing information outside their area of expertise, should such a situation arise.²⁶ Both the American College of Emergency Physicians (ACEP) and the American Society of Anesthesiologists (ASA) replicate this requirement in their own criteria, adding that the

¹⁹ *Clinical Practice Guidelines*, NIH.gov (last visited Jul. 25, 2022) at <https://www.nccih.nih.gov/health/providers/clinicalpractice>.

²⁰ For more information about the AHRQ's guidelines, see *National Guideline Clearinghouse*, AGENCY FOR HEALTHCARE RSCH. & QUALITY, at <https://www.ahrq.gov/gam/updates/index.html>.

²¹ For more information about the Institute for Medicine's clinical practice guidelines, see Robin Graham et al., *Institute of Medicine (US) Committee on Standards for Developing Trustworthy Clinical Practice Guidelines*, INST. OF MED. (2011), at <https://pubmed.ncbi.nlm.nih.gov/24983061/>.

²² For more information about the Center for Disease Control and Prevention's clinical practice guidelines, see *Clinician Resources*, CTRS. FOR DISEASE CONTROL & PREVENTION, at <https://wwwnc.cdc.gov/travel/page/clinician-information-center>.

²³ Michael D. Cabana et al., *Why Don't Physicians Follow Clinical Practice Guidelines?*, 282 J. AM. MED. ASS'N. 1458, 1458 (1999).

²⁴ American Academy of Pediatrics: Stephen R. Paul & Sandeep K. Narang, *Expert Witness Participation in Civil and Criminal Proceedings*, 139 PEDIATRICS 1, 2 (2017)

²⁵ *Id.*

²⁶ *Id.*

physician should also be certified specifically in the relevant specialty.²⁷ All three specialty societies (AAP, ACEP and ASA) require physicians seeking to be medical experts to be actively engaged in the clinical practice of that specialty at the time of the incident in question.²⁸ Without evidence of these qualifications, specialists cannot present themselves as medical experts in the specialty in question. State medical boards should note that requiring experts to possess an active, unrestricted license to practice medicine in the state also provides the board with a mechanism to oversee the expert's provision of testimony. State courts have held that providing testimony in quality-of-care cases or medical malpractice actions is associated with the practice of medicine and is therefore subject to state medical board review.²⁹ Under their authority to discipline physicians for unprofessional conduct, medical boards are qualified and able to review and sanction physicians for providing false testimony.³⁰ However, unlicensed physicians who provide false testimony in quality-of-care cases are typically not subject to medical board review and therefore may only be sanctioned by professional societies of which they are members,³¹ or through civil or criminal courts.³²

Section 5: Determining and Analyzing Medical Expert Testimony Under Legal Precedent & *Daubert*

When external medical expertise is required for determining standards of care, state medical boards can consult state statutes regarding medical malpractice to determine appropriate qualifications for medical experts. Many states rely on Rule 702 of the Federal Rules of Evidence to assess expert medical testimony,³³ which provides standards that expert testimony must meet to be admissible at trial. Rule 702 provides that expert testimony is admissible only if the expert is “qualified as an expert by knowledge, skill, experience, training, or education.”³⁴

Rule 702 also provides guidance on how a factfinder, such as a judge or a medical review panel, can determine whether an expert's testimony should be admitted as evidence of the standard of

²⁷ American College of Emergency Physicians: Expert Witness Guidelines for the Specialty of Emergency Medicine, AMER. COLL. OF EMERGENCY PHYSICIANS 1, 1 (2021); American Society of Anesthesiologists: Guidelines for Expert Witness Qualifications and Testimony 1, 1 (2018).

²⁸ *Id.*; American Academy of Pediatrics: Stephen R. Paul & Sandeep K. Narang, Expert Witness Participation in Civil and Criminal Proceedings, 139 PEDIATRICS 1, 2 (2017).

²⁹ William J. Wenner, The Role of Licensing Boards in the Evaluation and Discipline of the Expert Witness, 90 J. Med. Regul. 16, 18 (2004).

³⁰ *Id.*; see, e.g., *M.D. v. District of Columbia Board of Medicine*, 587 A.2d 1085. (1991) (holding that the District of Columbia Board of Medicine could find that false testimony given by a physician acting as an expert in a medical malpractice action constituted a false report in the practice of medicine) & *Deatherage v. Examining Board of Psychology*, 948 P.2d 828 (Wash. 1997) (upholding a state medical board's action to discipline a psychiatrist for conduct constituting moral turpitude related to the practice of psychiatry when the psychiatrist, acting as an expert, did not verify patient information prior to providing testimony).

³¹ Cheshire WP, Hutchins JC. Professionalism in court: The neurologist as expert witness. *Neurol Clin Pract.* 2014 Aug;4(4):335-341. doi: 10.1212/CPJ.0000000000000041. PMID: 25279255; PMCID: PMC4160444

³² Sonny Bal., The Expert Witness in Medical Malpractice Litigation, 467 Clinical Orthopaedics & Related Rsch. 383, 389-91 (2008).

³³ FED. R. EVID. 702

³⁴ *Id.*

care. Under Rule 702, expert testimony may be admissible if the expert has demonstrated by a preponderance of the evidence that:

- (1) the expert’s scientific, technical or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (2) the testimony is based on sufficient facts or data;
- (3) the testimony is the product of reliable principles and methods; and
- (4) the expert’s opinion reflects a reliable application of the principles and methods to the facts of the case.³⁵

When interpreting Rule 702 in court, judges often turn to the conclusions of the seminal Supreme Court decision, *Daubert v. Merrell Dow Pharmaceuticals*.³⁶ In *Daubert*, the Court held in 1993 that judges are the “gate-keepers” of admissible evidence and therefore should rigorously review and challenge a potential expert’s testimony before determining that it is appropriate to be entered in a case. To determine whether testimony should be admissible, the Court introduced a non-exclusive list of factors that judges should consider, the *Daubert* factors. Under a *Daubert* analysis, judges examine submitted evidence to determine:

- (1) whether the theory or technique in question can be, and has been, tested;
- (2) whether it has been subjected to peer review and publication;
- (3) its known or potential error rate and the existence and maintenance of standards controlling its operation; and
- (4) whether it has attracted widespread acceptance within a relevant scientific community.³⁷

By adopting the *Daubert* analysis in quality-of-care cases, state medical boards may wish to choose to question experts on the following:

- (1) whether a critical step in a prospective expert’s reasoning is based on a highly dubious analogy;
- (2) whether the proffered opinion is based on data, a methodology, or studies that are simply inadequate to support the conclusions reached;
- (3) whether an expert exceeds the limitations of the studies upon which he relied;
- (4) whether an expert assumes a conclusion and “reverse-engineers” a theory to fit that conclusion; and
- (5) whether an expert ignores evidence that is highly relevant to his conclusion, but contrary to his own stated methodology.³⁸

³⁵ American Academy of Pediatrics, *supra* n. 27,

³⁶ 509 U.S. 579 (1993).

³⁷ Munjot Sahu et al., Taking a “Hard Look” at Expert Witness Testimony Under Rule 702, DEF. COUNSEL J. 1, 2 (2022).

³⁸ *Id.* at 11

Based on a preponderance of the evidence offered, state medical boards may conclude that expert testimony does not satisfy a *Daubert* analysis and therefore should not be included in a review of quality-of-care issues. When turning to state common law, however, boards may be confronted with laws or regulations that conflict with, or fail to address, Rule 702. Several states do not rely on Rule 702 to govern the qualifications of experts in medical malpractice cases and instead craft independent statutes to define a medical expert.³⁹ Other states rely on the “locality rule,” which establishes that a physician is not measured against all physicians in the country. Although medical school training, medical licensing requirements, and specialty board certification requirements are based on national standards, many states assess care against that provided by physicians within the local area of practice to establish the applicable standard of care.^{40,41} In some cases, courts broadly interpret state statutes to assess the qualifications of a medical expert “on the basis of training or experience” without considering whether the expert is “actively practicing” in an area of medicine “relevant to the claim.”⁴² In others, courts hold that an expert must practice in the defendant’s same field of medicine to be able to testify.⁴³

State medical boards may choose to question experts on whether they reviewed all relevant medical records and documents prior to testifying, whether the experts excluded any information provided to them, whether the expert asked for information they did not receive, and whether they are explicitly testifying on matters within their area of expertise.⁴⁴ Medical experts should be prepared to offer testimony that reflects “generally accepted standards” when differing standards are held by significant minorities and should state candidly when a variety of acceptable modalities exist.⁴⁵ State medical boards should ensure that experts are familiar with local and state law, regulations, and practices regarding the specialty, but also are familiar with and strictly adhere to local definitions of negligence, if applicable.⁴⁶ Additionally, state medical boards should ensure that experts understand the clear distinction between medical malpractice and adverse outcomes not necessarily related to negligent practice.⁴⁷

While assessing the credibility of an expert’s testimony, state medical boards may consider analyzing whether the testimony provided is false, misleading or biased. Many medical professional organizations also promulgate ethical standards to govern expert testimony. The

³⁹ See, e.g. LA. REV. STAT. § 40:1231.8 (2019). The court “shall consider whether . . . the witness is board certified or has other substantial training in an area of medical practice relevant to the claim and is actively practicing in that area.”

⁴⁰ Michelle Huckaby Lewis, et.al, The Locality Rule and the Physician’s Dilemma: Local Medical Practices vs the National Standard of Care, 297 JAMA 2633 (2007)

⁴¹ In instances where state medical boards must assess care provided via telemedicine against national or local standards, they are encouraged to consult the FSMB’s “The Appropriate Use of Telemedicine Technologies in the Practice of Medicine: A Report of the FSMB Workgroup on Telemedicine” (2022).

⁴² Benjamin Parks, Let It All in? Expert Witness Qualification in Medical Malpractice Lawsuits, 81 LA. L. REV. 1480 (2021)

⁴³ The FSMB Board-by-Board Overview of Expert Witness Qualifications for Medical Malpractice Cases may be a helpful resource for understanding the requirements across jurisdictions. It is available here: <https://www.fsmb.org/siteassets/advocacy/key-issues/expert-witness-by-state.pdf>

⁴⁴ *Id.*

⁴⁵ *Id.* at 3.

⁴⁶ American College of Emergency Physicians: Expert Witness Guidelines for the Specialty of Emergency Medicine, AMER. COLL. OF EMERGENCY PHYSICIANS 1, 2 (2021)

⁴⁷ American Society of Anesthesiologists: Guidelines for Expert Witness Qualifications and Testimony 1, 1 (2018)

American Medical Association’s Code of Ethics requires physicians to ensure that they are providing accurate information that appropriately conveys risks and benefits and is limited to the scope in which they are qualified to speak.⁴⁸ These requirements could be important considerations for state medical boards when evaluating expert testimony. Ultimately, state medical boards should strive to ensure that expert testimony accurately asserts scientific consensus.⁴⁹

Section 6: Analyzing Expert Medical Testimony Using Academic Research Methods

Many scientific articles on evidence-based medicine provide guiding principles on how to evaluate whether a medical expert’s claims are truly reliable and accurate. Although trained experts can aptly and accurately extrapolate conclusions from existing data, malpractice review panels and judges alike should be able to determine whether proffered evidence is applicable to existing data or is a dogmatic and unproven statement of the expert.⁵⁰ State medical boards can incorporate these scientific concepts during expert examination and cross-examination to determine whether a physician is truly qualified to present testimony. Experts should be able to base their theories on peer-reviewed critique within the healthcare community, find appropriate research studies to substantiate their theories and acknowledge refutations of their theories.⁵¹

When cases rely upon scientific evidence, like quality-of-care cases, the validity of that evidence is essential for state medical board deliberations. Experts need to establish credibility to provide weight to their evidence. An expert testifying using epidemiological studies must be knowledgeable about the results of the studies and must take into account contrary studies, if they exist, to determine that claims are supported by the “body of evidence” available.⁵² The National Academy of Medicine and the National Research Council note that “studies should be evaluated through scientific judgment, weighing evidence derived from studies in humans, studies in experimental animals, and mechanistic and other relevant data” when cited by experts.⁵³ One way to organize the different types of evidence based on their degree of quality and reliability is through the levels of evidence pyramid in **Figure 1**.

⁴⁸ Philip A. Pizzo et al., When Physicians Engage in Practices That Threaten the Nation’s Health, 325 J. AMER. MED. 723 (2021).

⁴⁹ *Id.* at 724.

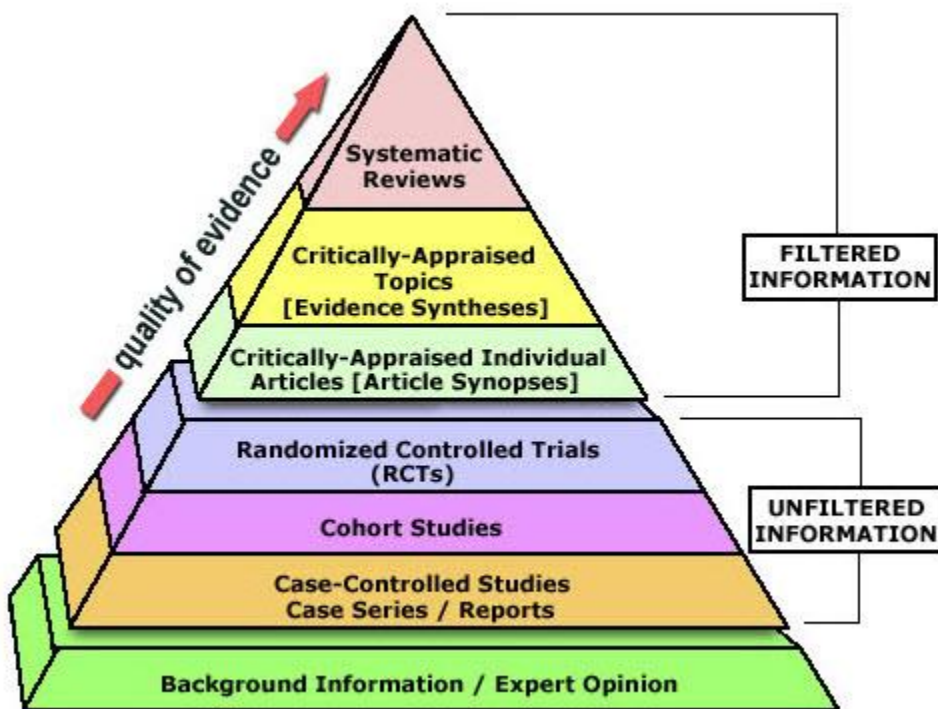
⁵⁰ Gen. Elec. Co. v. Joiner, 522 U.S. 136, 146 (1997).

⁵¹ Wells Mangrum & Richard C. Mangrum, Evidence-Based Medicine in Expert Testimony, 13 LIBERTY UNIV. L. REV. 337, 348-49 (2019).

⁵² *Id.* at 20.

⁵³ *Id.*

Figure 1: Levels of Evidence Pyramid⁵⁴



An awareness on the part of state medical boards of how academics grade medical evidence may equip board members with an ability to question experts on the quality of evidence upon which their testimony is based.⁵⁵ State medical boards should also ensure that the expert is not conflating correlation with causation based on the sources they present in their testimony, does not have financial interests or prejudices in the theory they are presenting and has based their opinion on evidence-based research studies to ensure validity.⁵⁶

Section 7: Recommendations to State Medical Boards

The following recommendations are based on principles of honesty, reliability and integrity, and are offered to support state medical boards in identifying and determining standards of care, assessing physician expert qualifications and determining admissible evidence to establish the standard of care in quality-of-care cases.

⁵⁴ *Evidence-Based Research: Levels of Evidence Pyramid*, Walden Univ. (2022), at <https://academicguides.waldenu.edu/library/healthvidence/evidencepyramid>

⁵⁵ Opeyemi O. Daramola & John S. Rhee, Rating Evidence in Medical Literature, 13 AMER. MED. ASS'N J. OF ETHICS 46, 47 (2011).

⁵⁶ *Id.* at 357, 373.

Recommendations for Determining Applicable Standards of Care

1. State medical boards should consider looking to national standards of care, where they may be relevant, to determine appropriate standards in quality-of-care cases.
2. When relevant national standards are not available, state medical boards should seek testimony from an appropriately qualified medical expert(s).
3. State medical boards should consider a variety of strategies, when necessary, to obtain the most appropriately qualified medical expert(s) to testify in quality-of-care cases.
4. State medical boards should ensure that medical experts are properly informed about the relevant details of the case and appropriately trained about their role and the associated ethical and professional considerations.

Recommendations for Assessing Medical Expert Qualifications

5. In order to ensure reliable medical expert testimony, when and where possible, state medical boards should prioritize experts who are:
 - a. licensed in their state,
 - b. engaged in active or recent (i.e., during the past two years) medical practice,
 - c. practicing in an area of medicine similar to the subject physician in a given case,
 - d. practicing in a similar environment, setting and context as the subject physician in a given case, and
 - e. specialty board certified and engaged in continuing medical specialty certification.
6. State medical boards should require disclosure of any conflicting personal, professional or financial interests that could prejudice or otherwise bias medical expert testimony.

Recommendations for Assessing Expert Medical Testimony

7. State medical boards should strive to ensure that expert testimony accurately asserts prevailing scientific consensus.
8. State medical boards may consider applying legal evidentiary rules, such as Federal Rule of Evidence 702 and a *Daubert* analysis, to offered testimony to determine whether it should be used to establish an appropriate standard of care.
9. If state medical boards conclude that expert testimony does not satisfy a *Daubert* analysis, the testimony should not be considered in the adjudication of the case.
10. Experts should be prepared to support their testimony with relevant evidence-based research studies, academic publications and other peer reviewed resources.
11. State medical boards may choose to question experts on testimony provided, to determine whether the experts reviewed all relevant medical information, excluded any relevant information in their testimony, properly limited their testimony to matters within their area of expertise and were not prejudiced or biased by conflicting personal or financial interests.
12. Expert questioning should also reveal that the expert understands distinctions between medical malpractice and adverse outcomes not related to negligent practice.

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