

# Medical Determinations of Crime in the Judicial System

Keith A. Findley, Professor Emeritus

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# Overview

1. Medical determinations of crime—manner of death, and others such as child abuse, including shaken baby syndrome/abusive head trauma—are not appropriate for courtroom testimony.
2. All of the challenges and problems confronting forensic pathology, and measures taken to address those problems, are equally, indeed, more, applicable in SBS/AHT.

# I. “How to ensure that the criminal justice system can best make responsible use of Medico-Legal Death Investigation conclusions, results and reports”: Limiting admissibility

## FRE 702:

A witness who is **qualified as an expert by knowledge, skill, experience, training, or education** may testify in the form of an opinion or otherwise if the proponent demonstrates to the court that it is more likely than not that:

- (a) 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;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert's opinion reflects a **reliable application of the principles and methods to the facts of the case**.

*Daubert*: Scientific evidence must be scientific, and all expert evidence, scientific or not, must be reliable—must be more than *ipse dixit*

# Reliability Considerations

- Historical accident
- Today, it's purpose is to generate statistics for public health purposes, not to resolve with any certainty or legal effect the actual cause and manner in a disputed case
- Pathologists themselves say: "Manner determination is not a 'scientific' determination. It is a cultural determination that places a death in a social context for the purpose of public health statistics."
- Use in court is a "misuse."
- NAME guide to Manner Determination: "It must be realized that when differing opinions occur regarding manner-of-death classification, there is often no 'right' or 'wrong' answer or specific classification that is better than its alternatives."
- For statistical purposes, getting it right in individual disputed cases makes no difference

But, of course, for the criminal justice system, getting the individual case right is *all* that matters.



# Expertise Considerations

- To the extent Manner (and child abuse) depends upon consideration of ordinary case evidence—as it always does—it exceeds the expert’s warrant in the courtroom
  - On those matters, the witness is not, in the words of Rule 702, “**an expert by knowledge, skill, experience, training, or education.**”

# Helpfulness Considerations

The manner opinion is not “helpful” to the trier of fact—the jury (or judge) needs no help understanding the non-medical evidence

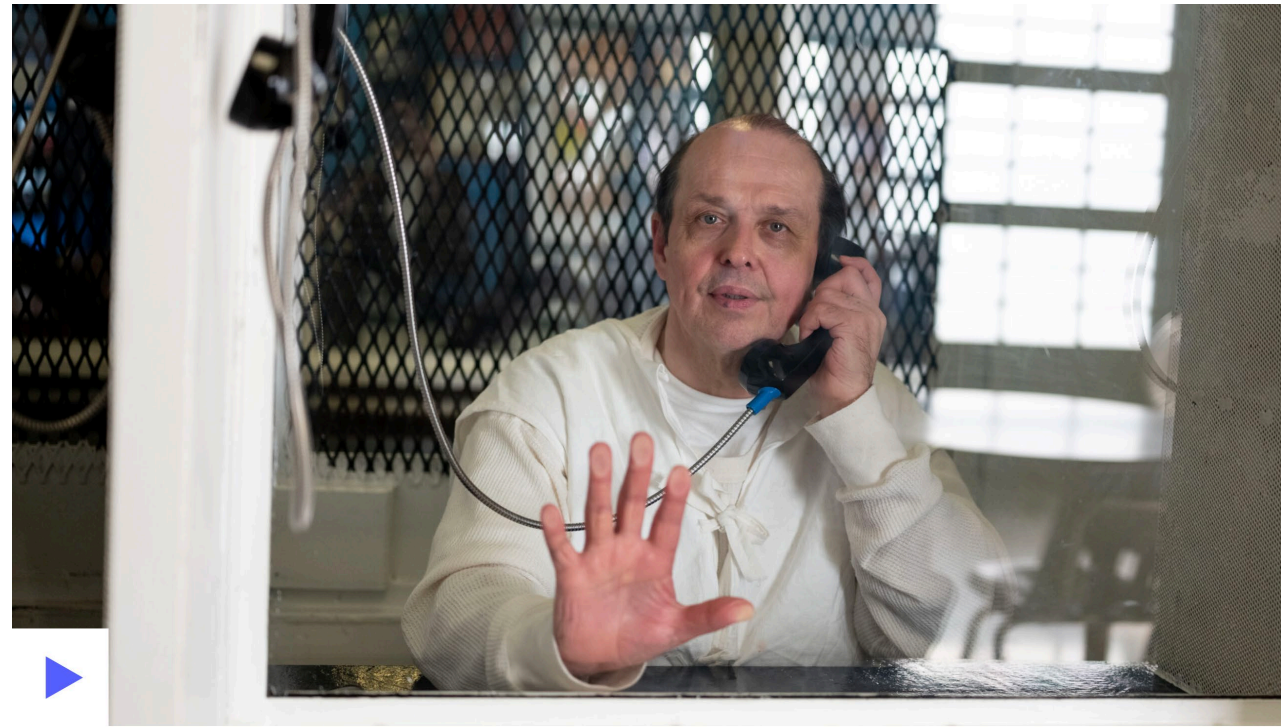
- a. Indeed, the legal fact-finder is better equipped to assess that evidence
  - 1. Jury is the cultural voice of the community
  - 2. Jury has the benefit of the jurors’ oath, witnesses’ oath, cross-examination, the rules of evidence, the government’s burden of proof, access to competing evidence.
  - 3. Avoids double-counting
- b. Excluding such opinions mitigates the most damaging effects of cognitive biases.
- c. Courts are beginning to recognize these principles: *e.g.*, *State v. Tyler* (Iowa 2015)
- d. A per se rule of exclusion would advance reliability in the courtroom significantly, even if nothing else were done to address the problems with forensic pathology and child abuse pediatrics.

## 2. All of this applies to child abuse (SBS/AHT) determinations

a. A particularly pressing concern:

i. Virtually uniquely, these opinions compose the entire case

ii. And can lead to unreliability in outcomes in cases with the most severe consequences: E.g., Robert Roberson, scheduled to be executed in Oct. 17 in Texas





# Reliability

b. Never validated; not sufficiently scientific. Why? Circularity.

1. E.g., SBU Report

2. In essence, what the research really tells us is when, and based upon what findings, physicians tend to “diagnose abuse; it does not tell s if those “diagnoses” are correct, which is required for validation.

3. In search of non-circularity: witnessed cases and confessions

- a. Problems with confessions

- b. Independently witnessed cases: Brooks, *Witnessed abusive head trauma: Accidents show higher rates of intracranial pathologies than shaking* (2024)

4. Biomechanics

5. Alternative etiologies: accidents and wide and growing array of congenital and disease-based conditions

# Shifts in the hypothesis; the new hidden consensus

- **Old Name:** SBS
- **New Name:** AHT (AAP 2009)
- **Old Belief** (AAP Policy Statement (1993 and 2001): endorsed “a medical presumption of child abuse when a child younger than 1 year of age has intracranial injury”
- **New Consensus** (AAP 2020, SPR 2018): a full “differential diagnosis,” considering all possible alternatives, is required in every case
- **Old Belief:** Absent a car crash or multi-story fall, the triad (SDH, RH, encephalopathy) was caused (only) by violent shaking.
- **New Consensus:** The pathophysiology is not well understood, and the triad (and other findings) has numerous possible etiologies; the triad is a “straw man” (AAP 2020, SPR 2018)

- **Old Belief:** Short falls can't cause fatal brain injury (AAP 2001, NAME 2001)
- **New Consensus:** Short falls can kill, albeit rarely (SPR 2018, AAP 2020 ("case reports have identified the potential mortality of some short-fall events"))
- **Old Belief:** SBS requires, and shaking generates, forces equivalent to motor vehicle accidents or multi-story falls.
- **New Consensus:** Shaking generates forces nowhere close to those levels and brain injury and death can occur from drops of just a few feet.
- **Old Belief:** A child so injured would always become immediately comatose and unresponsive; there was no possibility of a "lucid interval."
- **New Consensus:** While children so injured will not be entirely symptom free, they can in some cases remain lucid and responsive for hours or days or more prior to crashing
- **Old Belief:** The triad (and associated findings) = abuse, a definitive diagnosis
- **New Consensus:** "Gold standard definitional criteria for AHT do not exist. ... [I]n the absence of a gold standard, clinicians rarely confirm or exclude AHT with complete certainty and are compelled instead to adopt a probabilistic approach to the diagnosis."
  - a. Kent P. Hymel, *et al. Derivation of a Clinical Prediction Rule for Pediatric Abusive Head Trauma*, 14 (No. 2) *Pediatr Criti Care Med*. 2013 Feb;14(2):210-20, 212.

# Misplaced reliance on clinical judgment

- Expertise can be based experience.
- But only if experience provides opportunities to learn from feedback.
- But feedback is almost entirely absent because there is no treatment for abuse, and hence no opportunity to learn from patient response.
- Depends on data for accurate and meaningful probability statements. But data and statistics are absent and misunderstood.
- Otherwise, it is nothing more than the *ipse dixit* of the expert.

# Shifting judicial responses

- Convictions continue; most courts still admit this opinion evidence
- But:
  - At least 32 cases have now resulted in full exoneration, per the National Registry of Exonerations
  - American Law Institute (ALI) Restatement on Children and the Law (2018): determining whether a caregiver “has physically abused a child is a legal determination to be made by the factfinder”
  - *People v. McFarlane* (Mich. App. 2018): “an expert goes too far when he or she diagnoses the injury as ‘abusive head trauma’ or opines that the inflicted trauma amounted to child abuse.”
  - *State v. Nieves* (NJ App. 2023): opinions on SBS are inadmissible because not “generally accepted” in the relevant scientific community—biomechanics.

# Conclusions/Recommendations

1. Follow the NAS 2009 and recommend a national body—perhaps a committee or Center of Excellence of the NIH—to encourage research, set standards, and validate the multiple scientific, biomechanical, and medical propositions involved.
2. In the meantime, make it clear that opinion determinations of crime—both manner-of-death and child abuse, particularly SBS/AHT—are not appropriate for expert testimony in court