
RULE 702: STANDARD FOR ADMITTING EXPERT TESTIMONY

Fact Pattern:

The parents of two children, Daubert and Schuller, with serious birth defects sued Merrell Dow Pharmaceuticals, alleging that the birth defects developed because of an anti-nausea medication, Bendectin, marketed by the company. Extensive published statistical studies conducted on humans did not show that the medication was a risk factor for human birth defects. The parents of the afflicted children cited eight experts who contested the previous studies. The experts looked at animal studies, chemical analyses and an unpublished

re-analysis of the statistical human studies and argued that the medication could cause birth defects. The expert evidence, however, was based on in vitro and in vivo animal studies, pharmacological studies, and reanalysis of other published studies, and these methodologies had not yet gained acceptance within the general scientific community.

Question:

Should the scientific evidence presented by the petitioners be published or peer-reviewed before it becomes admissible to the court?

Rule

To be admissible, expert scientific testimony that is derived from research done for the purpose of litigation must show that the conclusions were reached after following recognized scientific methods of research.

Discussion

When this case was first tried in 1989, the Frye standard was applied to the case to establish the kinds of evidence that could be submitted. The Frye standard arose from a decision from the circuit court in Washington, D.C. In that case, the judge ruled that the results of a particular lie detector technology were inadmissible as evidence in the circuit's trial courts because the scientific community did not generally accept the technology. The Frye standard, also called the general acceptance standard, stated that all admissible scientific evidence must be generally accepted by the field to which it belongs. Applying the Frye standard, the judge for the Southern District of California's District Court dismissed the case on the basis that Daubert and Schuller had provided no published epidemiological studies showing that Bendectin caused birth defects reasoning that epidemiological studies were the generally accepted scientific evidence for proving a causal link between a chemical substance and an injury.



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In 1993, the case was appealed to the US Supreme Court in Washington, D.C. When the case reached the Supreme Court, the issue under examination had shifted from whether or not Bendectin had caused the birth defects to what standards courts should apply to determine the admissibility of scientific evidence. The unanimous Supreme Court decided to vacate and remand the lower court's ruling. The Court held that under the Federal Rules of Evidence, passed by Congress overturned the Frye standard for determining what kind of scientific evidence was admissible in a court. Citing Rule 702:

"If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise."

Nothing in the text of this Rule establishes 'general acceptance' as an absolute prerequisite to admissibility. Even though the Federal Rules of Evidence displaced Frye, the Court articulated limits on purportedly scientific evidence. In the Court's view, admissible scientific evidence had to be grounded in the methods and procedures of science and amount to more than subjective belief or unsupported speculation. Further, Rule 702 requires that admissible scientific evidence be relevant to the fact in question in a case. In the face of fears that their ruling would protect irrational pseudoscience, the Court argued that „vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence."

Under what is now referred to as the Daubert standard, the factors that may be considered in determining whether the methodology is valid are: (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; (4) the existence and maintenance of standards controlling its operation; and (5) whether it has attracted widespread acceptance within a relevant scientific community.