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Commonwealth of Kentucky

Court of Appeals

NO. 2011-CA-000100-MR

BILLIE JO RIES, INDIVIDUALLY
AND AS FRIEND OF INFANT CHILD,
LAUREN ELIZABETH RIES; AND
KEVIN RIES, INDIVIDUALLY
AND AS FRIEND OF INFANT CHILD,
LAUREN ELIZABETH RIES — APPELLANTS

v.

APPEAL FROM JEFFERSON CIRCUIT COURT
HONORABLE BARRY WILLETT, JUDGE
ACTION NO. 05-CI-002925

RICHARD C. OLIPHANT, M.D.;
LOUISVILLE PHYSICIANS FOR
WOMEN, PLLC; TONYA ROBINSON,
M.D.; AND NEONATAL ASSOCIATES,
PSC — APPELLEES

OPINION
REVERSING AND REMANDING

** ** ** ** **

BEFORE: CLAYTON, STUMBO, AND TAYLOR, JUDGES.

TAYLOR, JUDGE: Billy Jo Ries and Kevin Ries, each, individually and as next friend of Lauren Elizabeth Ries, an infant child, (collectively referred to as the Rieses) bring this appeal from a December 14, 2010, judgment upon a jury verdict dismissing the Rieses' medical negligence claims against Richard C. Oliphant, M.D.; Louisville Physicians for Women, PLLC; Tonya Robinson, M.D.; and Neonatal Associates, PSC (collectively referred to as appellees). We reverse and remand.

The tragic events giving rise to this appeal transpired on January 20, 1997. On that day, in the early morning hour of 5:00 a.m., Billie Jo, who was thirty-six weeks pregnant, awoke and almost immediately recognized she was bleeding vaginally. Thereupon, she awoke her husband, Kevin, and he called the paging system at the office of her obstetrician.[1] Dr. Richard C. Oliphant returned the call and instructed Kevin to take Billie Jo to the hospital.

Kevin immediately transported Billie Jo to Baptist Hospital East. According to Billie Jo, she arrived at Baptist East at 5:30 a.m. At 6:05 a.m., a nurse from Baptist East called Oliphant and gave him a report on Billie Jo's condition. Oliphant instructed the nurse to monitor Billie Jo and told the nurse that he would soon arrive at the hospital. At 6:16 a.m., the nurse again called Oliphant and requested his immediate presence due to decelerations on the fetal heart monitor strip. Oliphant apparently arrived sometime around 6:30 a.m. and performed a vaginal examination on Billie Joe at approximately 6:36 a.m.

[1] Billie Jo Ries's regular obstetrician was Dr. Arthur Donovan; however, Dr. Richard C. Oliphant was the obstetrician on call for Donovan at the time.

Thereupon, he decided to perform an "urgent" cesarean section on Billie Jo. Sometime later, Oliphant performed a cesarean section, and Lauren was delivered at 6:59 a.m. Dr. Tonya Robinson, a neonatologist, assumed primary care of Lauren upon her delivery.

After delivery, it became immediately apparent that Lauren was in distress. She had no spontaneous respirations and was in need of emergent resuscitation. She also suffered multiple organ failure and brain damage. Later, it was determined that Billie Jo suffered from a vasa previa with velamentous vessels[2] and that three of these velamentous vessels tore causing Lauren to lose somewhere between one-third to one-half of her total blood volume at some point prior to her delivery.

In 2005, the Rieses filed a complaint alleging medical malpractice against appellees.[3] In particular, the Rieses claimed that appellees' negligence caused Lauren to suffer permanent and profound injuries and consequent disabilities. According to the Rieses, Lauren's injuries left her unable to speak, unable to care for herself, unable to feed herself, unable to control her bowel or bladder, and unable to control her behavior resulting in emotional outbursts.

[2] Vasa previa occurs when the umbilical vessels pass over the cervix's opening causing them to be vulnerable to rupture. Velamentous vessels occur when the umbilical cord has split from the protective covering before reaching the placenta and has implanted along the cervical wall.

[3] Billy Jo Ries, individually and as next friend of child Lauren Elizabeth Ries, and Kevin Ries, individually and as next friend of child Lauren Elizabeth Ries, also named other defendants in their complaint. However, these other defendants are not appellees in this appeal.

The matter was heard by a jury over a four-week period, commencing in August 2010. As a basis for appellees' liability, the Rieses presented evidence that Lauren suffered a massive fetal bleed resulting in a loss of one-third to one-half of her total blood volume while at Baptist East and that such blood loss caused Lauren to suffer injury. The Rieses also presented evidence that Billie Jo was at Baptist East for approximately one and one-half hours before Oliphant finally performed a cesarean section and that he breached the standard of care by not performing an emergency cesarean section sooner upon Billie Jo's arrival at Baptist East. Also, the Rieses claim that Robinson was negligent in her care of Lauren after delivery, thus causing Lauren to suffer additional injury.

Conversely, appellees presented evidence that no standard of care was breached in the treatment of either Billie Jo or Lauren. Appellees also presented evidence that even if a breach of the applicable standard of care occurred, no damage to Lauren resulted therefrom. More specifically, appellees introduced evidence that Lauren suffered a massive fetal bleed while Billie Jo was still at home sometime around 5:00 a.m., and that the fetal bleed was evidenced by the blood Billie Jo reported experiencing that morning, prior to being transported to the hospital. According to appellees, the injury suffered by Lauren was caused by the fetal bleed that occurred while Billie Jo was still at home and that an earlier delivery at Baptist East would not have prevented or abated Lauren's injury. Thus, under appellees' theory, Lauren suffered the full extent of her injury before Billie Jo arrived at Baptist East. In support of this theory, Dr. Jay Goldsmith opined that

Lauren suffered a massive bleed before arriving at Baptist East and while still at home sometime between 5:00 a.m. and 5:15 a.m.[4] In support of his opinion as to timing of the blood loss, Goldsmith utilized a mathematical formula based upon total blood volume, hematocrit level, hemoglobin level, and the rate of equilibration of a human fetus in utero. After hearing the evidence, the jury returned a unanimous verdict in favor of appellees, thus leading to dismissal of all medical malpractice claims against appellees. This appeal follows.

The Rieses contend that the trial court committed reversible error by admitting the expert testimony of Goldsmith at trial. In particular, in accordance with *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993),[5] the Rieses argue that the trial court lacked an adequate record to rule upon the admissibility of Goldsmith's expert testimony as to his mathematical formula that timed Lauren's bleed. The Rieses argue that the trial court erred by concluding that Goldsmith's mathematical formula was scientifically reliable under *Daubert*.

Kentucky Rules of Evidence (KRE) 702 sets forth the standard for admissibility of expert testimony:

> 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

[4] Dr. Jay Goldsmith was an expert neonatologist identified by Dr. Tonya Robinson.

[5] *Mitchell v. Commonwealth*, 908 S.W.2d 100 (Ky. 1995), *overruled on other grounds by Fugate v. Commonwealth*, 993 S.W.2d 931 (Ky. 1999), formally adopted the evidentiary rulings set forth in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 124 L. Ed. 2d 469 (1993).

> expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if:
>
> (1) The testimony is based upon sufficient facts or data;
>
> (2) The testimony is the product of reliable principles and methods; and
>
> (3) The witness has applied the principles and methods reliably to the facts of the case.

KRE 702 largely codified the evidentiary pronouncements in *Daubert*, 509 U.S. 579, 113 S. Ct. 2786. Under *Daubert*, scientific or specialized evidence must be relevant and reliable to be admissible. *Toyota Motor Corp. v. Gregory*, 136 S.W.3d 35 (Ky. 2004). And, the trial court serves as a "gatekeeper" and must initially determine the relevancy and reliability of such specialized evidence before such evidence may be admitted during trial. To determine relevancy and reliability, the trial court must conclude "whether the expert is proposing to testify to scientific, technical or other specialized knowledge that will assist the trier of fact to understand or determine a fact in issue." *Id.* at 39. The scientific or technical evidence is reliable where it is based upon scientifically valid reasoning or methodology. *Id.* The test of reliability is flexible; however, the trial court may consider the following *Daubert* factors:

> (1) whether the theory or technique can be and has been tested;
>
> (2) whether the theory or technique has been subjected to peer review and publication;

> (3) the known or potential rate of error in using a particular scientific technique and the existence and maintenance of standards controlling the technique's operation; and
>
> (4) whether the theory or technique has been generally accepted in the particular field.

Id. at 40 (quoting *Daubert*, 509 U.S. at 593-94, 113 S. Ct. at 2796-2797).

To determine relevancy and reliability, it is often necessary for the trial court to conduct a "preliminary hearing" on the specialized or scientific evidence. *Lukjan v. Commonwealth*, 358 S.W.3d 33 (Ky. App. 2012). However, the trial court may fulfill its gatekeeper role without conducting a preliminary hearing if "the record is complete enough to measure the proffered testimony against the proper standards of reliability and relevance." *Lukjan*, 358 S.W.3d at 41 (citations omitted). When the record is sufficient and no preliminary hearing is required, it is recognized:

> [T]he minimum a court must do to fulfill the requirements of *Daubert* and its progeny is to make an affirmative statement on the record that the court has "reviewed the material submitted by the parties [relevant] to the testimony of the [expert witnesses] and [has] concluded that the testimony was reliable." *Hyman & Armstrong, PSC v. Gunderson*, 279 S.W.3d 93, 101 (Ky.2008) (citing *City of Owensboro v. Adams*, 136 S.W.3d 446, 451 (Ky.2004)). "In so doing, however, the court need not recite any of the *Daubert* factors, so long as the record is clear that the court effectively conducted a *Daubert* inquiry." *Id.*

Lukjan, 358 S.W.3d at 41.

Our review of the trial court's ruling on the admissibility of such expert evidence under *Daubert* is limited. *Daubert*, 509 U.S. 579, 113 S. Ct. 2786. We review the trial court's findings of fact as to the reliability of the evidence under the clearly erroneous standard, and the trial court's conclusion as to relevance under the abuse of discretion standard. *Lukjan*, 358 S.W.3d 33. Also, the trial court's failure to conduct a preliminary hearing will only be disturbed based upon an abuse of discretion. *Id.*

In this case, the record reveals that the Rieses filed a motion for a *Daubert* hearing regarding the admissibility of Goldsmith's expert testimony concerning his "mathematical model and equilibration theory."[6] Therein, the Rieses argued that Goldsmith's mathematical formula was scientifically flawed because he utilized an incorrect equilibration rate for a human fetus in utero.

[6] It is argued that the *Daubert* motion filed by Billy Jo Ries, individually and as next friend of child Lauren Elizabeth Ries, and Kevin Ries, individually and as next friend of child Lauren Elizabeth Ries (collectively referred to as the Rieses), was untimely because it was filed during trial. Although the *Daubert* motion was filed during the trial, the record reveals numerous objections to Goldsmith's testimony by the Rieses in the months prior to trial. Most importantly, the Rieses filed a motion to strike Goldsmith's testimony on July 12, 2012. In that motion, the Rieses specifically stated that if the court declined to exclude Goldsmith's testimony because of inadequate pretrial disclosure, they would then challenge such testimony under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786. Subsequently, about one month later on August 23, 2010, the circuit court rendered a Final Pretrial Conference Order. In that order, the court concluded that all proposed expert testimony was reliable and relevant per *Daubert*, 509 U.S. 579, 113 S. Ct. 2786. We think that this August 23, 2010, order was sufficient to preserve the *Daubert* issue for appellate review. And, although the actual *Daubert* motion was filed during trial, no prejudice resulted thereby. Richard C. Oliphant, M.D.; Louisville Physicians for Women, PLLC; Tonya Robinson, M.D.; and Neonatal Associates, PSC, were fully aware of the Rieses' challenges to Goldsmith's testimony and reasonably could have anticipated such a *Daubert* challenge. Moreover, even if insufficiently raised below, the admission of Goldsmith's testimony would certainly result in palpable error affecting the substantial rights of the Rieses and, thus, mandate reversal for a new trial under Kentucky Rules of Civil Procedure 61.02.

Specifically, the Rieses pointed out that Goldsmith improperly utilized an equilibration rate of a human adult or child in his mathematical formula timing Lauren's bleed between 5:00 a.m. and 5:15 a.m. Because the equilibration rate was an essential factor in Goldsmith's mathematical formula, the Rieses claim that Goldsmith's mathematical formula was scientifically flawed and unreliable.

In his depositional testimony, Goldsmith readily admitted to having no knowledge of any scientific study or of other objective source directly setting forth the equilibration rate of a human fetus in utero.[7] While the rate of equilibration in an adult and child has been scientifically established, it was flatly admitted that the equilibration rate of a human fetus in utero is "impossible for medical science to determine."[8] Robinson's Brief at 19.

As a result, Goldsmith assumed that the equilibration rate of a human fetus in utero was identical to the equilibration rate of a human adult/child and utilized the rate of equilibration in a human adult/child in his mathematical formula. In his deposition, Goldsmith based his assumption equating the rate of equilibration in a human fetus in utero to that of a human adult/child upon the

[7] KRE 705 allows an expert to testify as to opinions and inferences without disclosing his underlying facts or data. However, KRE 705 mandates the expert be able to disclose such underlying facts or data on cross-examination. During his deposition, Goldsmith was directly questioned as to the underlying basis of his opinion as to the rate of equilibration of a human fetus in utero. In his second deposition dated May 26, 2010, Goldsmith flatly stated: "I am not aware of and have not spent the time to research on a intrauterine situation." Goldsmith's Deposition at 46.

[8] The reason for the dearth of scientific data was that the necessary test to determine the equilibration rate of a human fetus in utero could not be performed because death of the fetus would be the usual outcome.

scientific fact that equilibration occurs in humans and upon sundry studies concerning the equilibration rate of animal fetuses in utero. Thus, Goldsmith's assumption was not based upon his own independent research of the rate of equilibration of a fetus.

When an expert witness bases his opinion upon something other than his own independent research, such expert opinion may be still scientifically reliable "if supported by objective sources." *Burton v. CSX Transp., Inc.*, 269 S.W.3d 1, 9 (Ky. 2008). Succinctly stated, to be reliable under *Daubert*, expert scientific testimony must be supported by "objective sources" if not based upon the expert's own research. *Burton*, 269 S.W.3d at 9.

As hereinbefore pointed out, Goldsmith based his assumption that the rates of equilibration in a human fetus in utero and in a human adult/child were identical upon: (1) the general scientific fact that equilibration occurs in humans and (2) published studies concerning the equilibration rate of animal fetuses in utero. We address each seriatim.

The scientific fact that equilibration occurs in humans cannot serve as a basis of Goldsmith's assumption equating the rates of equilibration in a human fetus in utero to that of a human adult/child. The scientific fact that equilibration occurs in humans is simply inconsequential to determining the rate of such equilibration for a fetus. There was no scientific foundation presented by Goldsmith to determine the rate of equilibration of a human fetus in utero that served as a basis of Goldsmith's mathematical formula timing Lauren's bleed.

As to the animal studies supporting Goldsmith's assumption equating the rates of equilibration in a human fetus in utero to that of a human adult/child, Goldsmith only generally referred to such studies in his depositions and never put forth a particular study he used as support.[9] Thus, no animal studies were ever specifically cited as a basis for Goldsmith's assumption as to the rate of equilibration in a human fetus in utero. In response to the Rieses' motion for a *Daubert* hearing, appellees cited to four scientific studies appearing in sundry medical journals. However, no medical expert offered an opinion as to the significance of these studies or whether these studies supported Goldsmith's assumption. In fact, Goldsmith never stated that he utilized the proffered studies and never rendered an opinion upon such studies.

Upon examination of the record, there simply existed no "objective sources" of record supporting Goldsmith's assumption that the rate of equilibration in a human fetus in utero is identical to the rate in a human adult/child. *Burton*, 269 S.W.3d at 9. Without an underlying objective basis, it is virtually impossible to determine the reliability of Goldsmith's assumption and, thus, the reliability of his mathematical formula timing Lauren's bleed.

Additionally, as to the traditional *Daubert* factors, Goldsmith's assumption equating the rate of equilibration in a human fetus in utero to that of a

[9] In his second deposition dated May 26, 2010, Goldsmith did cite two medical textbooks, "Gomilla and Merenstein and Gardner." Goldsmith's Deposition at 44. However, Goldsmith cited these textbooks only as support for the rate of equilibration in a human adult/child and not for support of the rate of equilibration of a human fetus in utero. In fact, Goldsmith plainly admitted in his deposition: "I am not aware of and have not spent the time to research on a intrauterine situation." Goldsmith's Deposition at 46.

human adult/child admittedly has not been directly tested and has not been subject to peer review though publication. *See Toyota Motor Corp.*, 136 S.W.3d 35. Also, the record plainly establishes that Goldsmith's assumption as to the equilibration rate of a human fetus in utero was rejected by some of his peers and, thus, raises a grave question as to its general acceptance by the scientific community.

This Court is ever cognizant of its limited role in reviewing a trial court's ruling on a *Daubert* motion and concomitantly of the trial court's unique position to determine both the reliability and relevance of expert testimony. Nevertheless, evidentiary boundaries do exist.

In this case, the admission of Goldsmith's expert assumption that the equilibration rate of a human fetus in utero was identical to the rate of a human adult/child transgressed those boundaries. There is simply no evidentiary objective source in the record to support the trial court's finding that Goldsmith's assumption and, thus, his mathematical formula were reliable. *See Burton*, 269 S.W.3d 1. And, Goldsmith's assumption equating the equilibration rate of a human fetus in utero to that of a human adult/child is also lacking in scientific reliability when measured against the traditional *Daubert* factors. *See Toyota Motor Corp.*, 136 S.W.3d at 40. Consequently, we are constrained to conclude that the trial court erred by finding Goldsmith's testimony concerning his assumption as to the equilibration rate of a human fetus in utero reliable under *Daubert*. *See Lukjan*, 358 S.W.3d 33. Because the equilibration rate of an in utero human fetus was a critical factor in his mathematical formula timing Lauren's bleed, the

admission of Goldsmith's testimony surrounding his mathematical formula constituted error.

Having concluded that the trial court erred by admitting Goldsmith's testimony as to his mathematical formula, we now determine whether the admission of such evidence constituted reversible error. To constitute reversible error, a reasonable possibility must exist that the verdict would have been different absent the admission of the evidence. *Crane v. Commonwealth*, 726 S.W.2d 302 (Ky. 1987); KRE 103(a).

During trial, the parties adamantly disputed the timing of Lauren's blood loss and of her consequent injury. A review of the trial record reveals that the timing of Lauren's blood loss became a critical factual issue for the jury to resolve. Goldsmith testified personally before the jury and used a common analogy to explain his mathematical formula to the jury.[10] He testified as to each factor in his mathematical formula, including the equilibration rate of a human fetus in utero, and stated with absolute certainty that he could accurately time Lauren's blood loss within a fifteen-minute window between 5:00 a.m. and 5:15 a.m. through his mathematical formula. As viewed by the jury, Goldsmith utilized mathematical certainty to resolve the complex factual issue of timing Lauren's massive bleed. The persuasive effect of Goldsmith's testimony cannot be

[10] Goldsmith utilized the analogy a pitcher filled with sweetened tea to explain the bases of equilibration and of his mathematical formula that timed Lauren's bleed.

overstated.[11] Upon the whole, we are convinced that there exists a reasonable possibility that the jury verdict would have been different absent Goldsmith's testimony concerning his mathematical formula. *See Crane*, 726 S.W.2d 302. Moreover, even if this error were insufficiently raised below because of late filing, this evidentiary error is of such magnitude to affect appellant's substantive rights that results in manifest injustice. KRE 103(e); *Deemer v. Finger*, 817 S.W.2d 435 (Ky. 1990).

We view the Rieses' remaining contentions of error moot.

In sum, we conclude that the trial court committed reversible and palpable error by admitting Goldsmith's testimony concerning his mathematical formula that ostensibly timed Lauren's blood loss. Consequently, we hold that the Rieses are entitled to a new trial.

For the foregoing reasons, the judgment of the Jefferson Circuit Court is reversed and this case is remanded for proceedings consistent with this opinion.

STUMBO, JUDGE, CONCURS.

CLAYTON, JUDGE, CONCURS IN RESULT ONLY.

[11] If erroneously admitted evidence tends to be more persuasive than other properly admitted evidence, its admission is considered reversible error. Robert G. Lawson, *The Kentucky Evidence Law Handbook* § 1.10[7][d] (4th ed. 2003)(quoting 1 Mueller & Kirkpatrick, *Federal Evidence*, § 18 (2d ed. 1994)).

BRIEFS FOR APPELLANTS:

Ann B. Oldfather
R. Sean Deskins
Louisville, Kentucky

BRIEF FOR APPELLEES RICHARD C. OLIPHANT, M.D. AND LOUISVILLE PHYSICIANS FOR WOMEN, PLLC:

Gerald R. Toner
Brent T. Asseff
Louisville, Kentucky

BRIEF FOR APPELLEES TONYA ROBINSON, M.D. AND NEONATAL ASSOCIATES, P.S.C.:

Daniel G. Brown
Donald W. Darby
James E. Smith
Louisville, Kentucky