COLORADO COURT OF APPEALS

Court of Appeals No.: 06CA1625

City and County of Denver District Court No. 03CV6636

Honorable Morris B. Hoffman, Judge

Estate of Catherine Ford,

Plaintiff-Appellee,

v.

Danny J. Eicher, M.D., and Consultants in Obstetrics and Gynecology, PC,

Defendants-Appellants.

JUDGMENT REVERSED AND CASE REMANDED WITH DIRECTIONS

Division I
Opinion by: JUDGE ROTHENBERG
Rovira*, J., concurs
Terry, J., specially concurs

Announced: December 11, 2008

Leventhal, Brown, & Puga, P.C., James E. Puga, Benjamin Sachs, Daniel A. Lipman, Denver, Colorado, for Plaintiff-Appellee

Jaudon & Avery, L.L.P., Joseph C. Jaudon, David H. Yun, S. Jane Mitchell, Denver, Colorado, for Defendant-Appellants

*Sitting by assignment of the Chief Justice under provisions of Colo. Const. art. VI, § 5(3), and § 24-51-1105, C.R.S. 2008.

In this medical malpractice action, defendants, Danny J. Eicher, M.D. and Consultants in Obstetrics and Gynecology, P.C. (collectively Dr. Eicher), appeal a judgment entered on a jury verdict in favor of plaintiff, the Estate of Catherine Ford. We reverse and remand for a new trial.

I. Background

On August 27, 2001, Joy Ford was admitted to the Rose Medical Center for the induction of labor. Her primary obstetrician practiced with a group of doctors, including Dr. Eicher. Joy Ford had previously been diagnosed with gestational diabetes, a condition in which babies can become macrosomic (abnormally large), which creates a danger that the baby will have difficulty passing through the mother's vaginal canal. Dr. Eicher was on call at the time labor began, and he assumed the responsibility of delivering the baby.

As the baby descended the birth canal, Dr. Eicher made a diagnosis of shoulder dystocia, which occurs when a baby's shoulder becomes caught in the birth canal after its head is delivered. This prevents the full delivery of the baby and is considered an obstetrical emergency. In *Sturgis v. Bayside Health*

Ass'n Chartered, 942 A.2d 579, 582 (Del. 2007), the Delaware Supreme Court explained the nature of the emergency in a negligence case brought against a nurse-midwife:

This rare complication jeopardized [the baby's] life. If [the nurse-midwife] did not deliver [her] within five to seven minutes, [she] would be deprived of oxygen for a long enough period of time to damage her vital organs.

Although [the nurse-midwife] needed to act quickly, she still needed to proceed with great care. In order to free [the baby] for delivery, [the nurse-midwife] needed to ensure that she did not apply undue force, known as excess traction, on [the baby's] head. If the nurse-midwife applied excess traction, she might separate the nerves in [the baby's] shoulder and cause a brachial plexus injury [which is caused by damage to the network of nerves that conducts signals from the spine to the shoulder, arm, and hand]. A brachial plexus injury could potentially limit [the] use of her arm for the rest of her life.

To reduce excess traction, obstetricians have developed a number of procedures to dislodge the baby from the pubic bone for delivery and to minimize the likelihood of a brachial plexus injury. According to the medical literature, when the nurse-midwife discovers shoulder dystocia, she could apply suprapubic pressure, i.e. push above the mother's pubic bone, in an attempt to dislodge the baby without pulling on her head. The nurse-midwife might follow that by performing the McRoberts maneuver, where, with the help of an assistant, the nurse-midwife positions the mother's legs to maximize the potential opening for the baby to pass through. Finally, the nurse-midwife could apply the Woods corkscrew maneuver to reposition the baby and potentially free her for delivery. These procedures

attempt to eliminate excessive traction or pressure on the baby's head and limit the possibility of a brachial plexus injury.

In this case, there was trial testimony that, as the baby's head descended the birth canal, her left shoulder was anterior (up), and her right shoulder was posterior (down). This is referred to as a right occiput anterior presentation. There was also testimony here, as in *Sturgis*, that obstetricians have developed several emergency maneuvers to dislodge the baby from the mother's pubic bone and facilitate delivery without excess traction (pulling) by the doctor. These procedures are designed to minimize the likelihood of an injury to the baby's brachial plexus, a group of nerves stemming from the spinal cord at the neck that are responsible for movement and sensation in the shoulder and arm.

Dr. Eicher testified that he used the McRoberts maneuver by positioning the mother's legs to maximize the potential opening for the baby to pass through; that he also applied suprapubic pressure by having the nurse apply pressure on the mother's pubic bone to dislodge the impacted shoulder; that as the nurse applied such pressure, he applied traction; and that the baby was delivered. He denied applying excessive traction.

The baby, who was named Catherine, was diagnosed with a brachial plexus injury to the right shoulder. The Estate that was established for the minor child filed this action for medical malpractice, alleging that Dr. Eicher failed properly to inform Catherine's parents about the risks of a vaginal birth as opposed to a caesarian section, and that he applied excessive traction to deliver the baby. The jury returned a verdict in favor of the Estate, and the trial court entered judgment accordingly.

II. Motion to Preclude Expert Testimony

Dr. Eicher contends the trial court abused its discretion in granting the Estate's pretrial motion to preclude his two defense experts from expressing opinions regarding the cause of Catherine's injury. We agree.

A. Standard of Review

Trial courts have broad discretion to determine the admissibility of expert testimony, and their rulings will not be overturned absent an abuse of that discretion. *City of Aurora v.*Colo. State Eng'r, 105 P.3d 595, 612 (Colo. 2005). However, a trial court abuses its discretion when its decision is manifestly arbitrary, unreasonable, or unfair, or when it applies an incorrect legal

standard. *People v. Ibarra*, 849 P.2d 33, 38 (Colo. 1993); *People v. Prieto*, 124 P.3d 842, 849 (Colo. App. 2005).

The admission of scientific evidence and expert testimony is governed by CRE 702. *People v. Shreck*, 22 P.3d 68, 77- 78 (Colo. 2001); see Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 589 (1993).

The purpose of a CRE 702 inquiry is to determine whether the proffered scientific evidence is reliable and relevant, and for the trial court – acting as a gatekeeper – to prevent the admission of "junk" science." Elsayed Mukhtar v. California State University, Hayward, 299 F.3d 1053, 1063 (9th Cir. 2002)("The trial court must act as a 'gatekeeper' to exclude 'junk science' that does not meet Rule 702's reliability standards by making a preliminary determination that the expert's testimony is reliable.")(citing Kumho Tire Co. v. Carmichael, 526 U.S. 137, 147-48 (1999)), amended, 319 F.3d 1073 (9th Cir. 2003); see General Elec. Co. v. Joiner, 522 U.S. 136, 154 n.6 (1997)(an example of "junk science" that should be excluded under Daubert as too unreliable "would be the testimony of a phrenologist who would purport to prove a defendant's future dangerousness based on the contours of the defendant's skull."); cf.

Transcontinental Ins. Co. v. Crump, ___ S.W.3d ___, __ (Tex. App. No. 14-06-00905-CV, Aug. 26, 2008) ("A properly conducted and explained differential diagnosis is not 'junk science.' Medical doctors routinely use differential diagnosis as a sufficient basis on which to prescribe medical treatment with potential life-or-death consequences." (citation omitted)); In re Jam Golf, LLC, ___ A.2d ____, ___ (Vt. No. 2006-307, Aug. 22, 2008)(despite the "hypothetical" nature of part of a wildlife expert's testimony, court concluded testimony was reliable for the purposes of Daubert, "because the testimony was based on the type of facts and data with which wildlife experts are familiar -- topographic features and wildlife movement patterns," "a wildlife expert . . . is accorded the authority to interpret and rely on such technical information, even if he has not observed it firsthand," and that expert's "testimony is [not] the kind of 'junk science' that Daubert meant to exclude").

In making a determination of reliability and relevancy, the trial court should consider the following: (1) whether the scientific principles to which the witness is testifying are reasonably reliable; (2) whether the witness is qualified to express an opinion on such matters; and (3) whether the witness's testimony would be useful to

the jury. *Shreck*, 22 P.3d at 77-79. The trial court's reliability inquiry should consider the totality of the circumstances of each specific case. *People v. Ramirez*, 155 P.3d 371, 378 (Colo. 2007); *Shreck*, 22 P.3d at 77. The court should also consider whether the probative value of the evidence is substantially outweighed by the danger of unfair prejudice. *Shreck*, 22 P.3d at 79; *see* CRE 403.

B. Applicability to This Case

At the pretrial hearing conducted in this case, the trial court addressed the admissibility of opinions by two experts, Dr. Joseph G. Ouzounian and Dr. Theodore A. Cooper. They were endorsed by Dr. Eicher to testify that Catherine's "injury to her right brachial plexus occurred prior to Dr. Eicher's efforts to deliver the anterior shoulder"; that her "injury was not caused by anything that Dr. Eicher did or didn't do"; and that "a planned cesarean section would not necessarily have prevented injury to [her]."

The two doctors did not testify at the pretrial hearing, but their depositions were reviewed by the trial court along with the accompanying medical literature on which they relied. After considering the depositions and the parties' other submissions, the trial court found that Dr. Ouzounian's opinion was not scientifically

reliable, and that Dr. Cooper's opinion was not based on a reasonable degree of medical probability. The court ruled that the two experts would be allowed to testify that injuries, such as those sustained by Catherine, can occur in the absence of excessive traction by the doctor, for example, by intrauterine contractions. But the court disallowed the two defense experts from expressing an opinion that "this injury to Catherine Ford was caused by intrauterine contractions unrelated to her shoulder dystocia."

C. Testimony of Dr. Ouzounian

Dr. Eicher contends the trial court erred in ruling that Dr. Ouzounian's testimony was scientifically unreliable. We agree.

Expert testimony is reliable if the scientific principles used by the witness are reasonably reliable and the witness is qualified to express an opinion on such matters. *Shreck*, 22 P.3d at 77. A court determines the reliability of a scientific method by considering the totality of the circumstances, which may include (1) whether the technique can be and has been tested; (2) whether it has been subject to peer review and publication; (3) the existence and maintenance of standards controlling the operation of the technique; (4) the frequency and type of error generated by the

technique; and (5) whether such evidence has been offered in previous cases to support or dispute the merits of a particular scientific procedure. *Id.* at 77-78.

The trial court here acknowledged that there was a body of literature, "much of it peer-reviewed, challenging the orthodox view that excessive traction is the only, or perhaps even the primary, cause of brachial plexus injury in deliveries accompanied by shoulder dystocia." However, the trial court stated:

Perhaps most troubling for me, there is virtually no way for me -- or for the jury -- to test causation or assess error rates. That is, in a given case, like this one, there is simply no way to tell, from all the available data in the records, whether a particular plexus injury was caused by intrauterine contraction or excessive clinical traction, or both, and no way to judge the confidence rates of those choices. In other words, the intrauterine contraction theory is not testable, and Dr. Ouzounian's opinion as to causation really boils down to offering a possible alternative explanation without giving the jury the tools to decide whether that explanation is more likely than not the correct one. In the end, the only tool they will be left with may very well be their views about the credibility of Dr. Eicher, which is precisely where they would be with or without Dr. Ouzounian's opinion Dr. Ouzounian's causation opinion assumes he has excluded excess traction as a cause. And he cannot do that using any testable techniques; he does that simply by assuming what Dr. Eicher says is true.

(Original emphasis.)

We conclude the trial court applied an incorrect legal standard in making its ruling. Instead of evaluating whether the theory propounded by Dr. Ouzounian was reasonably reliable, as required by *Shreck*, the trial court determined which medical theory of causation was more plausible. This is beyond the trial court's gatekeeping function.

The Colorado Supreme Court in *Shreck* established a liberal standard of admissibility that would be balanced by "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof." *Shreck*, 22 P.3d at 78 (quoting *Daubert*, 509 U.S. at 596); *see Masters v. People*, 58 P.3d 979, 989 (Colo. 2002)("[T]here is no single test that can be logically applied to the multitude of subject areas potentially appropriate for expert testimony, and any attempt to formulate one would undoubtedly and arbitrarily exclude expert testimony that is both reliable and helpful to juries."); Stephen A. Hess & Sheila K. Hyatt, 22 Colo. Prac. Handbook on Evidence ER 702 (2008).

We further conclude that the trial court's concerns with the lack of testing of the intrauterine contraction theory and possible

error rates went to the weight of Dr. Ouzounian's testimony, not to its admissibility. *See Shreck*, 22 P.3d at 77-78.

In Farmland Mutual Insurance Cos. v. Chief Industries, Inc., 170 P.3d 832, 835 (Colo. App. 2007), a contractor installed a crop drying heater manufactured by Chief Industries. After a fire caused extensive damage, Farmland filed an action for subrogation against Chief and the installer, alleging that the drying unit was negligently designed, manufactured, and installed. Farmland's expert witnesses included a forensic mechanical engineer. Chief contended the engineer's methodology was not reasonably reliable because he used a process of elimination to determine the cause of the fire, which, according to Chief, was not a reliable scientific method. Chief also argued that the engineer did not confirm his conclusions through testing. Farmland, 170 P.3d at 835. A division of this court rejected Chief's arguments.

The division in *Farmland* joined the majority of courts that have held the process of elimination is a reliable scientific method of showing causation. *See Bitler v. A.O. Smith Corp.*, 400 F.3d 1227, 1236 (10th Cir. 2004)(concluding the process of elimination, or "differential diagnosis," "is a valid scientific technique to establish

causation"). The *Farmland* division also concluded "[t]esting was not a prerequisite to admissibility." 170 P.3d at 837.

Here, as in *Farmland*, Dr. Ouzounian reached his conclusion about the cause of Catherine's injury through a process of elimination. Thus, testing was not a prerequisite to the admissibility of his opinion. Furthermore, the trial court overlooked the evidence in the record establishing that there is *no ethical way* in which to test the in utero causation theory of brachial plexus injury or to measure how much traction is "excessive" without subjecting mothers and their infants to potentially injurious conduct.

In *D'Amore v. Cardwell*, (Ohio Ct. App. No. L-06-1342, Mar. 31, 2008)(2008 WL 852791), the parties disputed whether "there was any scientifically reliable basis to conclude that there was any cause other than excess lateral traction for permanent brachial plexus injuries of the type suffered by [the plaintiff]." *Id.* at ¶ 26. The trial court permitted the defense experts to testify about the same in utero causation theory that Dr. Eicher sought to have admitted in this case. The Ohio Court of Appeals upheld the ruling, reiterating the fact that there is no ethical way in which to test the

in utero causation theory of brachial plexus injury or to measure how much traction is "excessive." The Ohio court's reasoning is instructive:

Prospective testing of the in utero causation theory of brachial plexus injury is unavailable as it appears impossible to conduct such testing without injuring the subject. [The defendant] asserts that the in utero causation theory is scientifically based upon a retrospective review of medical records [and that] retrospective studies have reported the occurrence of brachial plexus injuries where excess lateral traction could not have been the cause, listing as examples head first deliveries without traction, breech deliveries where the baby's feet are delivered first, and cesarean deliveries involving surgical removal of the baby without head traction.

[The plaintiffs] argue in response that the retrospective analysis is inherently flawed due to an "inherent ascertainment bias" and that the in utero causation theory has not been scientifically tested.

The parties agree that prospective and objective evidence of brachial plexus injury without excess lateral traction does exist even where the delivery is not complicated by shoulder dystocia. A well known example is a peer review report of a delivery at Johns Hopkins.

. . . .

[However, the plaintiffs'] experts claim that the in utero causation or the maternal expulsive force theory is only a hypothesis as to the cause of brachial plexus injury and that the hypothesis needs to be investigated further and proven.

. . . .

Here, [the defendant physician] denied use of excess lateral traction in the delivery. . . .

The trial court's role is not to evaluate which competing scientific analysis or conclusion is correct. Under *Daubert* and Evid. R. 702, the trial court is to determine whether expert opinion testimony is sufficiently relevant and reliable to be admitted into evidence for jury consideration. Where the evidence is admitted, it is for the jury to decide the weight to give such testimony. It remains the prerogative of the jury to reject expert evidence "for any number of reasons" including unreliability.

Id. at $\P\P$ 41-43, 63, 65-67 (footnote and citation omitted)(emphasis added).

In *Luster v. Brinkman*, ___ P.3d ___ (Colo. App. No. 06CA2443, July 10, 2008), a division of this court addressed an issue in an obstetrical malpractice action that arose based on nearly identical facts. There, the parents of an infant injured during childbirth contended the trial court abused its discretion in admitting expert testimony offered by the defendants that intrauterine contractions can cause brachial plexus injuries.

The division adopted the reasoning of cases in several other jurisdictions admitting such evidence, including *Clark v. Heidrick*, 150 F.3d 912, 915 (8th Cir. 1998), and *D'Amore v. Cardwell*. In

doing so, the division noted that "[p]laintiffs have cited no cases, and we are aware of none, holding such expert testimony inadmissible at trial," and that:

Plaintiffs' arguments are premised on theories of causation which have rejected the body of literature finding that intrauterine forces can cause brachial plexus injuries. Where, as here, competing evidentiary theories exist, it is the fact finder's function to consider what weight should be given to all parts of the evidence. This includes the resolving of conflicts, inconsistencies, and disputes in the evidence.

Luster v. Brinkman, ___ P.3d at ___ (citation omitted).

We agree with the division's reasoning and holding in *Luster v.*Brinkman, and for the reasons set forth above, we conclude the trial court's concerns with testing and error rates did not justify its ruling disallowing Dr. Ouzounian's testimony.

The Estate nevertheless urges us to uphold the trial court's ruling, asserting that Dr. Ouzounian was unable to express an opinion regarding the cause of the injury *in this case*. However, the record does not support the Estate's argument.

At his deposition, Dr. Ouzounian attributed Catherine's injury to in utero forces, and expressly stated that "the most likely explanation [for the injury in this case] was injury to the posterior shoulder by impaction on the sacrum or sacral promontory." The sacrum is a large, triangular bone located at the base of the spine and at the upper and back part of the pelvic cavity, where it is inserted like a wedge between the two hip bones. Its upper part connects with the last lumbar vertebra, and the bottom part with the coccyx (tailbone). The sacral promontory is the anatomical term for the superior-most portion of the sacrum. See also Ina May Gaskin, Spiritual Midwifery 354 (4th ed. 2002)(describing a technique used by the Mayan Indians and Guatemalan midwives to avoid this anatomical difficulty and recommending that the mother flip over so that she is on her hands and knees: "This position works very well to widen the pelvis . . . when the shoulders are stuck: instead of the mother's coccyx being pushed towards the symphysis pubis in the way it is in the seated position, there is no pressure on the coccyx and the baby's weight is pushing on the symphysis pubis, thereby widening the anterior to posterior diameter a little. In addition, in the hands and knees position, gravity assists and favors the birth of the baby. Since we midwives ... began using [this technique] in 1976, we have never had a case of shoulder dystocia that we couldn't resolve with comparative ease.

. . . I would strongly advise against [the use of the knee-chest position to resolve shoulder dystocia] since gravity is then working against you.").

Dr. Ouzounian referred to numerous studies and articles that had been published in authoritative medical journals discussing the alternative causes of brachial plexus injury, including articles he had authored. He read excerpts from the studies and articles, discussed their findings and relevance to the jury, and explained how they supported his conclusion that some cases of brachial plexus palsy have an intrauterine origin.

He testified that (1) endogenous or intrauterine forces, which are the mother's labor and contractions, are four to nine times higher than the force a doctor or midwife would apply; (2) a significant number of cases of brachial palsy occur in utero before the baby's head is delivered and where there is no evidence of trauma by traction; and (3) cases exist where babies have been delivered by caesarean section and no traction has been applied, but temporary and permanent brachial injuries have nevertheless occurred.

Contrary to the Estate's contention, Dr. Ouzounian's opinion was supported by a significant body of scientific evidence. In fact, one of the Estate's medical experts acknowledged a 1995 article on the subject of in utero injuries. That article states, as relevant here:

[T]here is a strong suggestion that some brachial plexus injuries may be completely unrelated to manipulations performed at the time of delivery. In these cases, it is most likely that maternal expulsive forces of delivery may be partly or totally responsible for posterior or anterior arm injuries. For example, the posterior shoulder may become temporarily lodged behind the sacral promontory yet delivery of the head results from maternal expulsive efforts or use of instruments.

The Estate's expert admitted that this article has been cited repeatedly in journal articles published by other board certified obstetricians as an alternative explanation for brachial plexus injuries.

We therefore conclude the trial court abused its discretion in ruling that the theory of causation propounded by Dr. Ouzounian was unreliable and in disallowing it under *Shreck*.

The Estate next argues that, even if the trial court erred in disallowing Dr. Ouzounian's testimony regarding the likely cause of Catherine's injury, any error was harmless. We disagree.

Dr. Ouzounian's testimony was incomplete because the trial court precluded him from expressing his opinion about the likely cause of the injury in this case. During the trial, the jurors requested that several questions be asked of Dr. Ouzounian regarding the cause of Catherine's brachial plexus injury, including these: (1) "You stated that you do not think the delivery team contributed to Catherine Ford's injuries. What do you think is the most likely cause of her severe [brachial plexus] injury?"; and (2) "You stated that there are other possible causes for [brachial plexus palsy] other than traction by the delivery doc. Is it likely that these other causes would result in [brachial plexus palsy] as severe as Catherine Ford's in your opinion?" The trial court did not allow Dr. Ouzounian to answer these and similar questions.

The importance of Dr. Ouzounian's testimony regarding the likely cause of Catherine's injury is apparent from the Estate's closing argument. The Estate's attorney argued:

Catherine Ford may have the same question that some of you have. If this wasn't excessive traction with a shoulder dystocia, what was it? What was it? And she, like you, sat here waiting for somebody from the defense to sit in that stand and say I can tell you to a reasonable degree of medical probability that this is the cause of her injury, not traction. And no one did. Not one of their

witnesses answered that question, that question that she has and that you have. . . . And so Catherine Ford says, okay, give me another explanation. If it didn't happen from the shoulder dystocia and the excess traction, what caused it? Dr. Eicher says I have no idea. Dr. Ouzounian, he gave you a bunch of hypotheses, maybes and possibilities, none of which apply to this case. Dr. Cooper, same thing, a bunch of hypotheses, possibilities and maybes.

(Emphasis added.)

Had Dr. Ouzounian been permitted to testify about the likely cause of Catherine's injury, this argument could have been rebutted. The Estate would have been able to cross-examine Dr. Ouzounian and argue that its experts were more credible on the issue of causation, but Dr. Eicher would have had an opportunity to present his expert's opinion regarding the likely cause of Catherine's injury and the reasons supporting that opinion.

We therefore conclude the trial court abused its discretion in not allowing Dr. Ouzounian to present his opinion regarding the cause of Catherine's injury in this case, and further conclude the error caused substantial prejudice to Dr. Eicher. Accordingly, a new trial is required. *See Luster v. Brinkman*, ___ P.3d at ___; *Sturgis*, 942 A.2d at 586-88.

D. Testimony of Dr. Cooper

We also agree with Dr. Eicher that the trial court abused its discretion in precluding Dr. Cooper from expressing his opinion regarding causation.

The trial court precluded this testimony in part because Dr. Cooper "described intrauterine contractions as a 'possible' mechanism and a 'reasonable supposition," rather than a "reasonable medical certainty." This ruling was understandable because, at the time of trial, the court did not have the benefit of the supreme court's opinion in *People v. Ramirez*, 155 P.3d at 375-76 (holding that "reasonable medical probability" or "reasonable medical certainty" was no longer the standard for admission of expert testimony, and such testimony is not speculative because it is stated with less than certainty, such as, "I think" or "It is possible.").

Applying the *Ramirez* standard and the criteria we have discussed above with respect to Dr. Ouzounian's testimony, we conclude Dr. Cooper should be permitted to testify on remand regarding the likely cause of the injury in this case.

III. Dr. Eicher's Motion to Strike Estate's Expert

Dr. Eicher also contends the trial court abused its discretion in refusing to strike the testimony of the Estate's expert for failure to provide a complete testimonial history. Dr. Eicher maintains that the court's sanction for the Estate's violation of C.R.C.P. 26(a)(2) was inadequate. We are not persuaded.

C.R.C.P. 26(a)(2)(B)(I) requires that witnesses retained to provide expert testimony submit a disclosure report containing, among other things, "a listing of any other cases in which the witness has testified as an expert at trial or by deposition within the preceding four years."

The Estate's expert had testified as an expert in approximately 100 cases during the past four years but had disclosed only 54 cases. He explained that he had failed to implement a method to keep an accurate list of the cases in which he had testified. The trial court found that the Estate had failed to comply with the disclosure rules, but that preclusion of the witness was too harsh a sanction, and the court allowed the defense to inquire about the violation during its cross-examination of the expert. We perceive no abuse of discretion by the trial court.

In *Trattler v. Citron*, 182 P.3d 674, 681-82 (Colo. 2008), which was announced after the trial in this case, the court held that C.R.C.P. 37(c)(1) does not mandate witness preclusion for the failure to disclose testimonial history. Indeed, the court held that the trial court abuses its discretion when it does not consider other sanctions provided in the "in addition to or in lieu of" section of the rule. *Trattler* overruled the cases on which Dr. Eicher relies to the extent they are inconsistent with its holding regarding sanctions. *Id.* at 681 n.2.

Accordingly, the trial court did not abuse its discretion in denying Dr. Eicher's motion to preclude the Estate's expert from testifying.

The judgment is reversed, and the case is remanded for a new trial in accordance with the views expressed in this opinion.

JUSTICE ROVIRA concurs.

JUDGE TERRY specially concurs.

JUDGE TERRY specially concurring.

For reasons explained herein, I concur in the result reached by the majority. I write separately to bring attention to an area of uncertainty in the law that has made it difficult for trial courts to perform their "gatekeeping" function of preventing the admission of so-called "junk science."

Until *People v. Ramirez*, 155 P.3d 371, 375-76 (Colo. 2007), the standard for admissibility of medical expert testimony was that the expert's opinion had to be held to "a reasonable degree of medical probability." In *Ramirez*, the standard was changed to allow admission of opinion testimony to a mere "possibility." *Id*. We follow and apply *Ramirez* in our decision today. However, the change in standard announced in *Ramirez* appears to have shifted the sands under the feet of trial courts in determining whether expert testimony is based on reasonably reliable scientific principles, and therefore admissible.

Here, the trial court determined that although the expert could testify that intrauterine contractions generally can cause the types of injuries exhibited by the child here, his theory that such contractions were the cause of the injuries *in this instance*, *to this*

child was untestable and unreliable. The court stated, "[T]he intrauterine contraction theory is not testable, and Dr. Ouzounian's opinion as to causation really boils down to offering a possible alternative explanation without giving the jury the tools to decide whether that explanation is more likely than not the correct one." The trial court's logical conclusion indicates there was no reliable way, given the state of the science as presented to the court, for the expert to determine to a reasonable degree of probability whether such was the cause of injury to any individual child. See Kumho Tire Co. v. Carmichael, 526 U.S. 137, 154-58 (1999) (affirming trial court's exclusion, as unreliable, of expert opinion testimony regarding cause of failure of the particular tire in issue).

If the standard applicable prior to the announcement of *Ramirez* were applied here, in my view it would not have been an abuse of discretion for the court to exclude this evidence. It exercised its discretion, as gatekeeper, to keep out what it deemed unreliable scientific evidence. *See Kumho Tire*, 526 U.S. at 158 ("[Fed. R. Evid.] 702 grants the district judge the discretionary authority, reviewable for its abuse, to determine reliability in light of the particular facts and circumstances of the particular case."); *id*.

at 152 (trial court has same latitude in deciding *how* to test an expert's reliability as it enjoys when deciding *whether* expert's testimony is reliable).

I concur in the result because of the change in the law announced in *Ramirez*. Applying the rule of that case, the fact that an expert opinion may be expressed to a mere degree of "possibility" is, apparently, no longer an impediment to its being deemed "reliable," and therefore admissible. Thus, in retrospect, we can say that the expert should have been permitted to testify that it is "possible" that this child's injuries were caused by intrauterine contractions. However, I am concerned that, if the purpose of the *Shreck* test was to have trial courts exclude "junk science" from the courtroom, the change in applicable standards may place obstacles in the path of trial courts attempting to discharge that duty.

The majority opinion also suggests that plaintiff's counsel took unfair advantage of the exclusion of this testimony by emphasizing to the jury that the defense had failed to show the cause of this child's injuries. I disagree that the determination whether the trial court has abused its discretion in excluding evidence is measured

to any degree by whether the opposing party was able to take tactical advantage of the exclusion of such evidence.

In my view, *Luster v. Brinkman*, ___ P.3d ___, __ (Colo. App. No. 06CA2443, July 10, 2008), does not eliminate the need to discuss these evidentiary issues. There, the division concluded the trial court did not abuse its discretion in admitting similar expert testimony regarding intrauterine contractions as the cause of brachial plexus injuries to the infant in that case. In *Luster*, the issue was whether it was an abuse of discretion for the trial court to admit such expert testimony, and not, as here, whether the court abused its discretion in excluding such testimony because it determined the testimony was not based on reasonably reliable scientific principles.

It is my hope that the supreme court will give further guidance to the trial courts as to the proper exercise of their gatekeeping function with respect to admission of expert opinion testimony in light of its ruling in *Ramirez*.