RECOMMENDED FOR FULL-TEXT PUBLICATION
Pursuant to Sixth Circuit Rule 206

ELECTRONIC CITATION: 2000 FED App. 0398P (6th Cir.)
File Name: 00a0398p.06

UNITED STATES COURT OF APPEALS

FOR THE SIXTH CIRCUIT

DEBORAH JAHN,
Plaintiff-Appellant,

v.

EQUINE SERVICES, PSC;
SCOTT D. BENNETT, D.V.M.;
MARY BETH WALLINGFORD,
D.V.M.; and RICHARD
GRIFFIN, D.V.M.,
Defendants-Appellees.

No. 99-5647

Appeal from the United States District Court
for the Eastern District of Kentucky at Frankfort.
No. 98-00009—Joseph M. Hood, District Judge.

Argued: May 4, 2000

Decided and Filed: November 21, 2000

Before: MERRITT, CLAY, and CUDAHY, Circuit Judges.*

---

* The Honorable Richard D. Cudahy, Circuit Judge of the United States Court of Appeals for the Seventh Circuit, sitting by designation.

COUNSEL

ARGUED: Daniel E. Danford, STITES & HARBISON, Lexington, Kentucky, for Appellant. Matthew J. Smith, SMITH, ROLFES & SKAVDAHL COMPANY, Cincinnati, Ohio, Michael J. Cox, MILLER, GRIFFIN & MARKS, Lexington, Kentucky, for Appellees. **ON BRIEF:** Daniel E. Danford, Benjamin L. Kessinger, Jr., STITES & HARBISON, Lexington, Kentucky, for Appellant. Matthew J. Smith, Thomas F. Glassman, SMITH, ROLFES & SKAVDAHL COMPANY, Cincinnati, Ohio, Michael J. Cox, MILLER, GRIFFIN & MARKS, Lexington, Kentucky, for Appellees.

OPINION

CUDAHY, Circuit Judge. Deborah Jahn owned a champion Hackney pony named Night Passage. In April of 1997, the pony was taken to Equine Services, PSC, to have corrective surgery for a breathing problem. The surgery was performed on April 15, 1997, and a few hours after the operation, Night Passage was found dead in his stall. Jahn sued Equine Services and three veterinarians in federal court asserting various state-law causes of action. The district court granted summary judgment in favor of the defendants on all counts in the complaint, and Jahn now appeals.

Jahn, an Illinois resident, sought treatment for Night Passage's palate displacement, a condition common among Hackney ponies that interferes with the horse's breathing. This condition can be corrected using one of several surgical techniques, and Dr. Bennett at Equine Services[1] chose to use

[1]Equine Services, a Kentucky corporation, is owned by Dr. Scott Bennett. Jahn had taken Night Passage to Dr. Bennett before to receive care for an eye injury. Although she was displeased with the high bill,

methodology to determine whether Night Passage had an infection, there is no evidence—like veterinary studies—in the record verifying or contradicting the veterinarians' opinions that a fibrinogen level of 600 indicates the presence of an infection.[8] The district court mentioned the fact that Jahn provided no studies to support this opinion, but it is not very surprising that the record was incomplete because the court gave Jahn no notice that it would be ruling on the admissibility of her experts. A district court should not make a *Daubert* ruling prematurely, but should only do so when the record is complete enough to measure the proffered testimony against the proper standards of reliability and relevance. We believe that the record needs to be further developed to make an adequate *Daubert* determination in this case. With a more complete record before the district court, Jahn will have an adequate opportunity to defend the admissibility of her experts' testimony, and Equine Services will have an adequate opportunity to argue against it.

Because the district court's decision to grant summary judgment was based on its improper exclusion of Jahn's proffered expert testimony, we VACATE the district court's decision to grant summary judgment. Further, we REMAND for proceedings not inconsistent with this opinion.

[8] We note, however, that a lack of supporting studies is not, in itself, fatal to the admissibility of expert testimony. *See McCullock v. H.B. Fuller Co.*, 61 F.3d 1038, 1044 (2d Cir. 1995) ("Disputes as to the strength of [an expert's] credentials . . . or lack of textual authority for his opinion go to the weight, not the admissibility, of his testimony.").

a technique known as a "modified Forsell's procedure."[2] This procedure involves the removal of muscle and tissue from the pony's neck, thereby allowing it to better relax its neck to open the airway and permit fuller breathing.[3] During a pre-surgery evaluation, it was discovered that Night Passage had a fibrinogen level of 600 and a nasal discharge. Dr. Bennett apparently concluded that this was not a source of concern and had the pony prepared.

The surgery began at approximately 4:30 p.m. on April 15, 1997. Three veterinarians and two assistants took part in the procedure. Dr. Bennett supervised the entire operation and performed the modified Forsell's procedure himself. Dr. Richard Griffin—a veterinary intern—recommended a pre-surgical anesthesia dosage and administered the anesthesia once Dr. Bennett verbally approved the dose. Night Passage was given 450 milligrams of xylanine and 1100 milligrams of ketamine before the surgery. Dr. Maribeth Wallingford—another veterinary intern—had limited involvement with the operation because an emergency with another animal required her attention. The modified Forsell's procedure was conducted with Night Passage under general anesthetic, and Dr. Griffin, again under the supervision of Dr. Bennett, administered anesthetic gas to the pony throughout the surgery. No record of the type or amount of gas used

she returned to discuss treatment of Night Passage's breathing condition. During a tour of Equine Services's facility, she was told that Equine Services monitored "continuously, completely and around-the-clock."

[2] There is, however, no evidence in the record suggesting why Dr. Bennett chose this particular procedure, or whether he discussed it with Jahn.

[3] Jahn employed Larry Bacon as Night Passage's trainer, and Bacon brought Night Passage to Equine Services for admission and performance of the modified Forsell's procedure. Although Jahn did not personally authorize the surgery on the day of the operation, Bacon did. However, there is no documentary evidence demonstrating that Dr. Bennett explained the risk of this procedure to either Jahn or Bacon.

exists.[4] According to the veterinarians present, Night Passage remained stable during the entire surgery, which lasted about 45 minutes.

After the surgery ended at 5:15, Night Passage was taken to a padded recovery room, where he began to wake up about five minutes later. From this point forward, Equine Services made no additional medical records relating to Night Passage. According to Dr. Bennett, Night Passage was back on his feet after 20 minutes, and he decided to return Night Passage to his stall. Dr. Griffin supervised the pony's return to a regular stall, and observed Night Passage for approximately 10 minutes thereafter. All appeared fine. Dr. Bennett claims that he "probably saw [Night Passage] going back and forth to the stalls and checking other horses 10 or 15 times" before 7:30 p.m., and each time, he detected no problems with the pony's condition. *See* J.A. at 223 (Bennett Depo.).[5] As indicated above, however, no medical records of any kind document these visits or Night Passage's condition during the course of the evening. A horse caretaker at Equine Services claims that he checked on Night Passage periodically until 8:15 (when he went home for the night), but again, there are no records of the visits or Night Passage's condition. At approximately 9:00, one of the technicians who assisted with Night Passage's surgery checked the pony. She claimed that no problems were detected, but, yet again, there are no medical records to support this. Night Passage was found dead at approximately 10:00 p.m.

Night Passage's corpse was sent to Dr. Robert Tramontin at the Livestock Disease Diagnostic Center (LDDC) in Lexington, Kentucky, where he preformed an autopsy on the unfortunate animal. His autopsy report does not indicate whether he conducted an external examination of the body,

[4] In his deposition, Dr. Griffin testified that the gas used was halothane—a common general anesthetic—but he did not recall the amount he administered.

[5] All citations to the record will be to the parties' Joint Appendix.

believe that the district court abused its discretion in finding them inadmissible—on the apparent grounds that they employed improper methodology and that the pathologists were more persuasive on the issue of the infection—under Rule 702. Medical opinions need not be unchallengeable in order to be admissible. Medical experts are just witnesses, and they need not be purveyors of ultimate truth in order to be allowed on the stand. As the Supreme Court noted in *Daubert*, that "[v]igorous 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." 509 U.S. at 596. The opinions of Dr. Mundy and Dr. Robbins may very well be "shaky," but they are clearly not, as the district court apparently believed, "guesses" or "assumptions."

Not only do we believe that the district court erred by mischaracterizing the methodology employed by Jahn's experts and by weighing their testimony against that of the pathologists, but we also believe that the record was insufficient in order to make a proper *Daubert* determination. Although we have explained that "[t]he district court is not obligated to hold a *Daubert* hearing," *Clay v. Ford Motor Co.*, 215 F.3d 663, 667 (6th Cir. 2000), a district court should not make a *Daubert* determination when the record is not adequate to the task. "[I]n the absence of a hearing, we must review the record to determine whether the district court erred in its assessment of the relevance and reliability of the expert testimony," *id*. (quotation omitted), and the record before us contains enough material—the experts' reports, the pathologists' reports and depositions from most of the people involved—for us to have determined that the district court mischaracterized the testimony of Drs. Mundy and Robbins by weighing their opinions against the pathologists'. However, we do not believe that the record is complete enough for this court to reverse the district court and directly rule that Jahn's expert testimony is admissible.

For example, although we firmly believe relying on lab results and records of physical symptoms is appropriate

undoubtedly with struggle." J.A. at 434 (Mundy Report). The hypothesis was that the horse was in shock due to the administration of anesthesia in the presence of an undiagnosed infection, *see* J.A. at 396-97, 419 (Mundy Depo.), bashed his head on the wall of the stall and died. Dr. Mundy concluded that, because there were no medical records, Equine Services did not adequately monitor Night Passage, and stated that "[r]easonable veterinary practice includes close regular monitoring by trained medical personnel, with appropriate medical records, in the post-surgical period," and "[t]he absence of this reasonable veterinary practice, in my opinion, compromised the patient's life." J.A. at 434 (Mundy Report). Dr. Robbins linked the undiagnosed infection to Night Passage's death: "the stress of surgery could have allowed endotoxin to be absorbed and then we've got to follow up with an endotoxic reaction later." J.A. at 583 (Robbins Depo.). Dr. Robbins also believed that "had someone been in attendance and monitored the pony as promised, life saving procedures could have been implemented and may have prevented the death of the pony." J.A. at 619 (Robbins Report). Jahn's experts used the existing facts to present their opinions on causation: the anesthesia and infection, which should have delayed the surgery in the first place, caused Night Passage to go into shock and because Equine Services did not adequately monitor Night Passage, the shock led to the horse's death. Even Dr. Bennett believes that the shock contributed to Night Passage's death. *See* J.A. at 239 (Bennett Depo.). Of course, Dr. Bennett and the Equine Services staff professed that they monitored Night Passage, and Dr. Bennett pointed out that not all forms of shock are treatable. However, the adequacy of post-operative monitoring and whether better monitoring could have saved the horse is surely a question for the trier of fact, not one to be ruled on when determining the admissibility of expert testimony.

Because the opinions of Dr. Mundy and Dr. Robbins were based on undisputed objective medical facts and because the experts apparently applied a scientifically-based methodology to the limited facts with which they were presented, we

but it contains several specific findings from an internal examination. During this autopsy, Dr. Tramontin examined the area of the surgery and determined that the surgery had been done properly. He also performed cultures to check for bacterial infection in the lungs but found no evidence of an infection, although he noted that the lungs were very congested and the trachea and bronchi contained a "pale frothy material." J.A. at 452 (Tramontin's Case Summary). The report states that the "[c]ongestive change in various organs along with very pale mucous membranes indicate that this animal was in shock." *Id.* In his deposition, Dr. Tramontin stated that he did not know the specific cause of death, and the autopsy report noted simply "DIAGNOSIS: Hemorrhage, brain and spinal cord, etiology uncertain." *Id.* The LDDC sent numerous slides to Dr. Bolin, the veterinary pathologist at the Illinois Bureau of Animal Disease Laboratory. Looking at these slides, Dr. Bolin also identified signs of shock, but he could not determine the cause of death. Nor did Dr. Bolin see any signs of infection based on the slides in his possession.[6]

In November of 1997, Jahn filed suit against Dr. Bennett and Equine Services in the Eastern District of Kentucky, later adding Drs. Griffin and Wallingford as defendants in her first amended complaint. (We shall refer to the defendants collectively as Equine Services.) Jahn's complaint stated five counts against the defendants. First, she alleged that all the defendants had been negligent in their treatment of Night Passage before, during and after the surgery. Second, she claimed that Equine Services had breached an oral contract to monitor Night Passage "continuously, completely and around the clock." J.A. at 39 (First Amended Complaint). Third, Jahn alleged that Dr. Bennett and Equine Services were negligent by failing to inform her of the risks involved in Night Passage's surgery. Fourth, Jahn pleaded conversion against Dr. Bennett and Equine Services alleging that they did

[6] The slides contained sections of Night Passage's lungs, liver, intestines, spleen, kidney, thyroid, myocardium and portions of the brain.

not have consent to perform the surgery. Fifth, and finally, Jahn alleged that Equine Services had committed fraud by representing to her that Night Passage would be monitored "continuously, completely and around the clock." *Id.* at 42. Given the complicated nature of cases dealing with allegations of veterinary malpractice, Jahn employed two expert witnesses.

Jahn's first expert witness , Dr. George Mundy, has been a practicing veterinarian in Kentucky since 1983 and has extensive experience diagnosing and treating horses. He has presented several papers on the veterinary aspects of race horses, but as of the time he was deposed, Dr. Mundy had not performed a surgery in the preceding ten years and had never performed a modified Forsell's procedure. Jahn's other expert, Dr. Rhonda Robbins, has been a veterinarian since 1986, specializing in horse medicine, and has taught in the Department of Large Animal Surgery at Auburn University.

In their depositions, both Drs. Mundy and Robbins stated that a fibrinogen level of 600 and a nasal discharge are signs of infection or inflammation and provided cause for delaying the surgery in order to conduct further tests. Dr. Robbins explained that Night Passage's fibrinogen level was high enough to be a significant factor in the pony's death, and Dr. Mundy noted that even a mild infection can threaten a horse's life. Both also agreed that infection matched with anesthesia—even normal dosages, when given to a horse with an infection—could lead to shock and then death. Dr. Robbins stated that it appeared, from the records she had before her, that Night Passage had been given an overdose of approximately 1.5 to 2 times the normal pre-operative dosage of Xylanine and Ketamine. Dr. Mundy believed that the pony went into shock at some point after the surgery, fell and hit his head, causing the hemorrhage in the brain and spinal cord and death. Drs. Mundy and Robbins were both critical of the lack of medical records kept by Equine Services and were especially critical of the lack of postoperative care. But, much like the pathologists Tramontin and Bolin, neither Dr. Mundy nor Dr. Robbins could identify with any degree of

physical symptoms to infer the presence of an infection is *not* a methodologically unsound "assumption" or "guess"—it is a diagnosis. *See Walker v. Soo Line R.R. Co.*, 208 F.3d 581, 586 (7th Cir. 2000) (noting that patient histories "provide information upon which physicians may, and at times must, rely in their diagnostic work"); *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 762 (3d Cir. 1994) ("[E]valuation of the patient's medical records . . . is a reliable method of concluding that a patient is ill even in the absence of a physical examination."). The fact that neither pathologist confirmed the existence of an infection certainly places the matter in debate, but it does not render the *methodology* of Drs. Mundy or Robbins unreliable (although their conclusions may be less than certain). Whether Night Passage was suffering from an undiagnosed infection and whether Equine Services negligently failed to conduct further tests on the horse are questions for the trier of fact, not for the district court to answer when ruling on admissibility of expert testimony.

The other components of Dr. Mundy's and Dr. Robbins' opinions are similarly based on the objective medical facts of this case. With respect to their belief that Equine Services' inadequate post-surgical monitoring contributed to Night Passage's death, recall that both Dr. Tramontin and Dr. Bolin noted that there were signs that Night Passage had been in shock and that there had been a hemorrhage in his brain and spinal cord. These documented observations by the pathologists, matched with the total absence of medical records for the post-surgical period, support the inference that Night Passage was in some kind of distress, of which Equine Services was not aware. Using other clues from the existing medical records, Dr. Mundy pieced together what he believed to be the probable series of events leading up to the pony's demise. Based on Dr. Tramontin's note that the brain hemorrhage "may have been self-induced through some form of trauma" and a photograph of Night Passage's corpse in the stall at Equine Services with blood pooling around its head and some blood on the wall of the stall, Dr. Mundy believed that the horse suffered a "progressive, agonal death

> The first is the elevated fibrinogen value that is documented, and second—and if you look in my conclusions, I also—I—I dictate two specific facts documented in the record, the elevated fibrinogen value concurrent with the mild serous mucoid bilateral nasal discharge.

J.A. at 382 (Mundy Depo.). This shows that Dr. Mundy based his opinion on clinical indicia of an infection. Dr. Robbins similarly explained that Night Passage's fibrinogen level and nasal discharge suggested an infection. *See* J.A. at 579-82 (Robbins Depo.). The district court discounted these facts by explaining that "it is very suspect to assume that the animal had an infection within a reasonable medical probability, especially considering that the pathologist did not find an infection." J.A. at 57G n.10 (Mem. Op. and Order, Apr. 6, 1999). *See also id.* at 57E n.6 ("Because the pathologist did not find an infection, this calls into question the reliability of Dr. Mundy's report."); *id.* at 57G ("The problem with this assumption is that it goes against the pathologist's report . . . ."). In so stating, the district court erred in two ways. First, the district court apparently *weighed* the pathologist's testimony against Jahn's expert testimony and apparently found the opinions of Dr. Mundy and Dr. Robbins suspect because they contradicted that of the pathologist. But comparing two pieces of evidence and determining which is more credible should be left for the finder of fact and should not be considered when ruling on Rule 702 admissibility. *See Kennedy v. Collagen Corp.*, 161 F.3d 1226, 1229 (9th Cir. 1998) (reversing district court's exclusion of expert testimony because "[u]ltimately, the trial court failed to distinguish between the threshold question of admissibility of expert testimony and the persuasive weight to be accorded such testimony by a jury").

The second error committed by the district court in dismissing Dr. Mundy's and Dr. Robbins's opinions that Night Passage had an infection prior to the surgery is that it mischaracterized the methodology they employed to come to that opinion. Looking at the records of test results and

certainty the specific physiological cause of Night Passage's death.

After the case proceeded through discovery, all the defendants moved for summary judgment. Although Dr. Wallingford had retained separate counsel, the defendants all made the same argument for summary judgment. They argued that Jahn's claims failed because she could not establish the cause of the pony's death. Because Jahn could not establish causation, they argued, her entire case collapsed. In response to these motions, the district court determined, *sua sponte* and without allowing additional briefing, that the proposed testimony of Drs. Mundy and Robbins was inadmissible under *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993), and rejected their expert testimony. The district court then decided summary judgment against Jahn on all her claims because without the testimony from her expert witnesses she could not prove causation. She appeals, arguing that the district court improperly excluded her expert-witness testimony. She also contends, under numerous theories, that the district court erred by granting summary judgment for the defendants. We shall address only her expert witness argument here. Summary judgment is, of course, closely linked with the *Daubert* analysis, although it might conceivably be available even with a different *Daubert* outcome. We will not discuss Jahn's res ipsa loquitur and bailment arguments, since they were apparently not raised below.

We review the district court's decision to grant summary judgment *de novo*. *See Harris v. General Motors Corp.*, 201 F.3d 800, 802 (6th Cir. 2000). Summary judgment is proper only if there is no genuine issue of material fact. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 330 (1986); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). The burden of proving proximate causation falls on the plaintiff, and in a professional negligence case in Kentucky, proximate causation must be established by expert testimony. *See Morriss v. Hoffman*, 551 S.W.2d 8, 9 (Ken. Ct. App. 1977); *see also Welsh v. United States*, 844 F.2d 1239, 1243 (6th Cir.

1988). Here, the sole basis for the district court's decision to grant summary judgment was its exclusion of Jahn's expert testimony. Thus, we must review its ruling that Jahn's proffered expert testimony was inadmissible, and, even in the context of summary judgment, we review that decision for abuse of discretion. *See General Elec. Co. v. Joiner*, 522 U.S. 136, 143 (1997).

The admissibility of expert testimony in a federal court is primarily governed by Federal Rule of Evidence 702, which states:

> 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, expertise, training, or education, may testify thereto in the form of an opinion or otherwise.

Fed. R. Evid. 702. In *Daubert*, the Supreme Court provided extensive guidance for the application of the dictates of Rule 702. The Court explained that Rule 702 displays a "liberal thrust" with the "general approach of relaxing the traditional barriers to 'opinion' testimony." *Id*. at 588 (quotation omitted). But, the Court continued, Rule 702 places some restrictions on the admissibility of expert testimony, and the district court retains the responsibility of "screening such evidence." *Id.* at 589. When a party proffers expert testimony, the district court must determine whether the testimony is both relevant and reliable when ruling on its admission. *See id*. at 590-91.

In assessing the relevance and reliability of proffered expert testimony, the district court must determine:

> whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue. This entails a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically

see J.A. at 386 (Mundy Depo.); *id.* at 541 (Robbins Depo.), and it seems patently unfair to allow Equine Services to *benefit* from what seems to be a deplorable, and perhaps even negligent, absence of record-keeping. *Cf. Welsh*, 844 F.2d at 1245-49 (explaining, in a diversity action governed by Kentucky law, that the party that negligently failed to preserve medical records must "bear the onus of proving a fact whose existence or nonexistence was placed in greater doubt by [that] negligent party").

Dr. Mundy and Dr. Robbins, after reviewing all of the evidence presented to them, present a chain of events that they believe, in toto, *probably* caused Night Passage to die. First, Night Passage probably had a mild infection on the day of the surgery. This indication of infection should have delayed the surgery and prompted further testing to determine if the infection made an operation hazardous. Second, being put under anesthetic stressed the horse's system to the point that, although it awoke from the surgery, Night Passage went into shock sometime thereafter. This shock progressed unnoticed and untreated and eventually killed the animal. The district court, however, viewed this as "stacking one guess on top of another," J.A. at 57D (Mem. Op. and Order, Apr. 6, 1999), and rejected his testimony on that basis.

Were Dr. Mundy and Dr. Robbins pulling their notions from thin air, the district court's use of "guess" would be appropriate, and their testimony should have been excluded as lacking a factual foundation. But they did no such thing: both based their opinions on the facts with which they were presented. By off-handedly labeling this a "guess," the district court failed to explore whether the proposed testimony was based on "the same level of intellectual rigor that characterizes the practice" of veterinary medicine. *Kumho Tire*, 526 U.S. at 152. We believe that Drs. Mundy and Robbins clearly used a methodology derived from scientific medical knowledge, although limited by the information provided to them by the defendants. For example, Dr. Mundy explained that he believed an infection was probable for two reasons:

a standard when considering the admissibility of their testimony.

The central issue in this case is whether Equine Services caused or failed to prevent Night Passage's untimely demise.[7] In order to be admissible on the issue of causation, an expert's testimony need not eliminate all other possible causes of the injury. *See Ambrosini v. Labarraque*, 101 F.3d 129, 140 (D.C. Cir. 1996). "The fact that several possible causes might remain 'uneliminated' . . . only goes to the accuracy of the conclusion, not to the soundness of the methodology." *Id.* Here, although they admitted that they did not know the cause of death, both Dr. Mundy and Dr. Robbins identified what they believed to be the probable cause of Night Passage's demise. *See* J.A. at 396-97, 419 (Mundy Depo.); *id.* at 582-83, 590 (Robbins Depo.). It is undeniable that Night Passage is dead, and Jahn has proffered expert testimony to "assist the trier of fact to understand the evidence or to determine" why this animal is dead. Fed. R. Evid. 702. *Daubert* and Rule 702 require only that the expert testimony be derived from inferences based on a scientific method and that those inferences be derived from the facts of the case at hand, *see Daubert*, 509 U.S. at 590-92, not that they *know* answers to all the questions a case presents—even to the most fundamental questions. Certainty is not to be found in this case, due in considerable part to the lack of medical records kept by the defendants. Hampered by a lack of post-operative medical records, Jahn has called on her expert witnesses to use their expertise to piece together what probably happened to her now-dead horse. If Equine Services had kept records, Drs. Mundy and Robbins could probably have stated their opinions in a more illuminating fashion, and it might have been possible for the witnesses to precisely determine the physiological cause of Night Passage's death. Both experts noted that their analysis was hampered by the lack of records,

[7] The defendants' negligence is, of course, also central to this case, but because the district court's decision to grant summary judgment did not address negligence, we will not do so either. Nor do we address the merits of Jahn's contract claims.

> valid and of whether the reasoning or methodology properly can be applied to the facts in issue.

Daubert, 509 U.S. at 592-93. "'[S]cientific knowledge' establishes the standard of evidentiary reliability," *id.* at 590, and to be considered appropriately scientific, the expert need not testify to what is "'known' to a certainty" but must only state "an inference or assertion . . . derived by the scientific method." *Id.* Testimony meets this threshold when "an expert, whether basing testimony on professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice in the relevant field." *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 152 (1999). Experts are permitted a wide latitude in their opinions, including those not based on firsthand knowledge, so long as "the expert's opinion [has] a reliable basis in the knowledge and experience of the discipline." *Daubert*, 509 U.S. at 592. The court explained that relevance of proposed scientific testimony is established through Rule 702's "'helpfulness' standard" which "requires a valid scientific connection to the pertinent inquiry as a precondition for admissibility." *Id.* at 591-92. In the end, Rule 702 embodies a flexible approach and its "overarching subject is the scientific validity . . . of the principles that underlie the proposed submission. The focus, of course, must be solely on principles and methodology, not on the conclusions that they generate." *Daubert*, 509 U.S. at 594-95.

As a general matter, "[p]hysicians and other medical professionals routinely testify as experts since their specialized knowledge generally helps the jury resolve medical issues." 4 Jack B. Weinstein & Margaret A. Berger, Weinstein's Federal Evidence § 702.04[4] (Joseph M. McLaughlin ed., 2d ed. 2000). So here, given the inherently medical nature of Jahn's lawsuit, Jahn proffered the testimony of veterinarians Dr. Mundy and Dr. Robbins to assist the trier of fact in determining whether Equine Services was responsible for Night Passage's death. The district court's *Daubert* analysis consisted of five pages in its first order granting summary judgment. The court first notes that Dr.

Mundy had never performed a modified Forsell's procedure and had never worked outside of a university setting, concluding from these facts that Dr. Mundy's "opinions as to what may have killed Night Passage are very suspect." J.A. at 57C (Mem. Op. and Order, April 6, 1999). The district court also noted that Dr. Mundy, relying solely on the pathologists' report, "makes an assumption as to what killed Night Passage and then gives what he considers to be the most likely scenario that would have produced such a result," referring to this methodology as "stack[ing] one guess on top of another." *Id.* at 57D. The district court also noted that Jahn's other expert witness, Dr. Robbins, freely admitted that she did not have an opinion as to what specifically caused the horse's death. The district court finally noted that both experts' suggestion that an infection may have killed the pony was contradicted by the pathologist's report (which didn't find any evidence of infection)—reducing their explanations to "speculative and unreliable opinions." *Id.* at 57G. However, we believe that the district court's *Daubert* analysis both mischaracterized the methodology employed by Drs. Mundy and Robbins and ultimately employed a standard of admissibility more stringent than that expressed in Rule 702.

We first note that the district court erred in finding that Dr. Mundy's opinions as to how Night Passage died were "very suspect" on the ground that Dr. Mundy "never performed the surgery that was performed in this case and has never worked in a non-university setting." J.A. at 57C (Mem. Op. and Order, Apr. 6, 1999). The fact that Dr. Mundy had never performed a modified Forsell's procedure would cast doubt on any criticisms he had regarding the performance of the surgery, but he did not criticize the surgical procedure. As his report and deposition make clear, Dr. Mundy criticized Equine Services' failure to conduct a more thorough pre-operative examination and failure to monitor Night Passage after the surgery. Dr. Mundy did not base his opinions regarding Equine Services' care of Night Passage or the cause of his death on any knowledge of the procedure performed. Instead, he quite clearly explained that he was relying on the medical records presented to him by the defendants and his

own clinical/professional experience. Therefore, his lack of hands-on familiarity with the surgery performed was not relevant to a ruling on the admissibility of Dr. Mundy's testimony regarding pre-operative testing and post-operative monitoring.

The primary reason the district court gave for excluding Dr. Mundy's and Dr. Robbins' opinion testimony was their inability to specify what, in particular, killed Night Passage. The district court turned to this section of Dr. Mundy's deposition testimony:

> Q: One: Do you have an opinion as to what [Night Passage] died of?
> A: No, but I—it's apparent to me that something went wrong.
> Q: So you are not prepared to give testimony as to the cause of death; is that correct?
> A: I'm not prepared because I don't see anything in the medical records specifically giving a diagnosis.

J.A. at 361 (Mundy Depo.). From this excerpt, the district court concluded that "[w]ithout knowing the cause of death, Dr. Mundy's opinions are not reliable." J.A. at 57D (Mem. Op. and Order, Apr. 6, 1999). The district court also pointed to an excerpt from Dr. Robbins's deposition:

> Q: So as I understand you sitting here today you do not have an opinion as to what cause this horse's death?
> A: Not really.

J.A. at 543 (Robbins Depo.). Based on these excerpts, the district court stated that "[b]ecause plaintiff's experts do not know what caused the pony's death, they can only speculate." J.A. at 57G (Mem. Op. and Order, Apr. 6, 1999). Plaintiff concedes that no one knows the precise physiological cause of Night Passage's death, and by implying that specific knowledge of the precise physiological cause of Night Passage's death is a prerequisite to admissibility, we believe that the district court held the experts up to entirely too strict