# TEXAS COURT OF APPEALS, THIRD DISTRICT, AT AUSTIN

NO. 03-10-00134-CV

Pifi Constancio, Individually and on Behalf of the Estate of Ruben Constancio, Deceased,
Appellant

v.

Shannon Medical Center d/b/a Shannon West Texas Memorial Hospital, Appellee

FROM THE DISTRICT COURT OF TOM GREEN COUNTY, 119TH JUDICIAL DISTRICT NO. B-06-0157-C-1, HONORABLE THOMAS J. GOSSETT, JUDGE PRESIDING

## MEMORANDUM OPINION

Pifi Constancio, Individually and on behalf of the Estate of Ruben Constancio, brings this interlocutory appeal from the district court's orders sustaining a challenge to the causation opinion of Constancio's expert witness and granting a no-evidence summary judgment dismissing Constancio's health care liability claim against Shannon Medical Center d/b/a Shannon West Texas Memorial Hospital. For the reasons that follow, we reverse both orders and remand this case to the district court.

<sup>&</sup>lt;sup>1</sup> Because appellant and the decedent share the same last name, we will refer to appellant as "Constancio" and to the decedent as "Ruben."

<sup>&</sup>lt;sup>2</sup> This appeal follows our remand of this case for the district court's consideration of whether to grant a statutory extension of time to cure a deficient expert report as to Constancio's health care liability claim against Dr. James Bray, who is not a party to this appeal. *See Constancio v. Bray*, 266 S.W.3d 149 (Tex. App.—Austin 2008, no pet.).

#### BACKGROUND

The record reflects that Ruben went to the emergency room of the Shannon West Texas Memorial Hospital on November 29, 2003, and was diagnosed with diabetic ketoacidosis (DKA).<sup>3</sup> Dr. James Bray initially wanted to admit Ruben to the Hospital's intensive care unit, which offers continuous monitoring and periodic recording of a patient's vital signs, but there were no ICU beds available. Instead, Ruben was admitted to the Hospital's "step-down" unit that cares for critical patients who require more care than a regular medical floor but do not receive constant monitoring of vital signs and oxygen level.

Ruben's DKA condition began to improve the next day. Unfortunately, Ruben also had pancreatitis and the undiagnosed conditions of pneumonia and methicillin-resistant *Staphylococcus aureus* (MRSA) sepsis.<sup>4</sup> Dr. Bray prescribed medications for Ruben—Ativan for restlessness, morphine for pain, and Phenergan for nausea—which the nurses administered on an "as needed" basis. On November 30, hospital staff observed Ruben becoming increasingly restless or agitated, pulling out his IV lines and oxygen. That afternoon, Dr. Bray prescribed 10 milligrams of Haldol, which he testified he would have ordered for signs of delirium, and a nurse administered it to Ruben.<sup>5</sup>

<sup>&</sup>lt;sup>3</sup> Diabetic ketoacidosis is a type of metabolic acidosis produced by an accumulation of ketone bodies resulting from uncontrolled diabetes mellitus. Dorland's Illustrated Medical Dictionary 17 (31st ed. 2007).

<sup>&</sup>lt;sup>4</sup> Methicillin-resistant *Staphylococcus aureus* (MRSA) is a species of bacteria that causes serious suppurative infections and systemic disease and has developed resistance to nearly all classes of antibiotics. *Id.* at 1203, 1790.

<sup>&</sup>lt;sup>5</sup> Haldol is a trademark name for haloperidol, an antipsychotic agent used in the management of psychoses and for control of vocal utterances and tics characteristic of Tourette's syndrome. *Id.* at 828, 830.

That evening, Ruben's respiratory condition began deteriorating. In the early morning hours of December 1, a nurse administered morphine, Phenergan, and Ativan to Ruben concurrently. When nurses checked on Ruben at about 3:40 a.m., they found that he had a respiratory rate of eight breaths per minute, with questionable detectable pulses and blood pressure. Ruben was intubated, received fluid resuscitation, and was transferred to the intensive care unit where he was resuscitated. But Ruben sustained significant brain damage after the respiratory event, and he died twelve days later after the withdrawal of life support.

Attributing Ruben's respiratory event to oversedation, Ruben's wife, Pifi Constancio, and his estate filed a health care liability claim against Shannon Medical Center d/b/a Shannon West Texas Memorial Hospital, alleging the hospital's vicarious liability for its nurses' negligence in: (1) administering the Ativan, morphine, and Phenergan medications concurrently to Ruben, and (2) failing to use proper monitoring devices on Ruben, such as a pulse oximeter. See Tex. Civ. Prac. & Rem. Code Ann. §§ 74.001-.507 (West 2011 & Supp. 2011) (Texas Medical Liability Act). In an effort to comply with the requirements applicable to health care liability claims under chapter 74 of the civil practice and remedies code, Constancio provided an expert report from Stephen J. Hata, M.D., a physician with four board certifications in anesthesiology, critical care medicine, pulmonology, and internal medicine, who addressed standard of care and causation issues.

<sup>&</sup>lt;sup>6</sup> A pulse oximeter is a device that measures the oxygen saturation of arterial blood. *Id.* at 76.

<sup>&</sup>lt;sup>7</sup> The district court concluded that Hata's original and first amended expert reports were inadequate and dismissed Constancio's suit on May 15, 2006. *See* Tex. Civ. Prac. & Rem. Code Ann. § 74.351(a), (*l*), (r)(6) (West 2011). In the first appeal of this case, we agreed that Hata's second expert report was inadequate, but we remanded the case for the district court's reconsideration of whether to grant a full 30-day extension of time to cure the report's deficiencies.

A fair summary of Hata's causation testimony is that but for the concurrent administration of the medications causing Ruben's respiratory event, and the Hospital staff's lack of continuous pulse-oxygen monitoring to alert when intervention was needed to prevent it, Ruben would have lived. The Hospital designated George Marck, M.D. as one of its experts on standard of care and causation.

After the parties took the experts' depositions, the Hospital filed a motion to exclude Hata's causation testimony and a no-evidence motion for summary judgment. *See* Tex. R. Civ. P. 166(a)(i); *Daubert v. Merrell Dow Pharm.*, 509 U.S. 579 (1993); *E.I. du Pont de Nemours v. Robinson*, 923 S.W.2d 549 (Tex. 1995). Two weeks before trial, the district court excluded Hata's testimony and granted the Hospital's no-evidence motion for summary judgment. Constancio appeals those two orders here.

#### **ANALYSIS**

# Hospital's *Daubert/Robinson* challenge and motion to exclude Hata's testimony

In her first issue, Constancio contends that the district court erred in granting the Hospital's *Daubert/Robinson* challenge and motion to exclude Hata's testimony. The order granting the Hospital's challenge specified that the court excluded Hata's testimony as to causation and noted that the ruling preceded its consideration of the Hospital's no-evidence motion for summary judgment:

*See Constancio*, 266 S.W.3d at 162-63. After remand, the district court granted the 30-day extension and subsequently ruled that Hata's second amended report, dated August 15, 2006, and served on September 19, 2008, was adequate.

Defendant SHANNON MEDICAL CENTER's *Daubert/Robinson* Challenge and Motion to Exclude Opinion Testimony of J. Stephen Hata, M.D. is GRANTED as to the causation testimony of J. Stephen Hata, M.D., and said testimony is hereby excluded pursuant to Rules 702-705 of the TEX. R. OF CIV. EVID.

It is also noted by the Court that this ruling has been made, and this Order has been entered, before consideration of Defendant SHANNON MEDICAL CENTER's No-Evidence Motion for Summary Judgment.

Because the court's order explicitly excluded Hata's testimony based on its unreliability as to causation, we review the court's ruling on that ground. *Cf. K-Mart Corp. v. Honeycutt*, 24 S.W.3d 357, 360 (Tex. 2000) ("Because the trial court did not specify the ground on which it excluded Dr. Johnston's testimony, we will affirm the trial court's ruling if any ground is meritorious."); *cf. also Tennyson v. Phillips*, No. 12-02-00154-CV, 2004 Tex. App. LEXIS 350, at \*10 (Tex. App.—Tyler Jan. 14, 2004, pet. denied) (mem. op.) (addressing each of appellees' objections to expert's testimony because trial court did not specify ground for its exclusion of expert's testimony); *see In re K.M.B.*, 148 S.W.3d 618, 622 (Tex. App.—Houston [14th Dist.] 2004, no pet.) (concluding that court's written order controls over oral pronouncement); *see also Hyperion Holdings, Inc. v. Texas Dep't of Hous. & Cmty. Affairs*, 03-05-00563-CV, 2006 Tex. App. LEXIS 1366, at \*8 (Tex. App.—Austin Feb. 16, 2006, no pet.) (mem. op.) (same).

### Standards for testing reliability of expert's causation testimony

Texas Rule of Evidence 702 provides that "[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise." Tex. R. Evid. 702. For an expert's

testimony to be admissible, the witness must be qualified to testify about "scientific, technical, or other specialized knowledge," and the testimony must be relevant and based upon a reliable foundation. *TXI Transp. Co. v. Hughes*, 306 S.W.3d 230, 234 (Tex. 2010) (citing Tex. R. Civ. Evid. 702; *Exxon Pipeline Co. v. Zwahr*, 88 S.W.3d 623, 628 (Tex. 2002)). The dispute in this case does not involve Hata's qualifications to render an opinion on the cause of Ruben's death, nor the relevancy of his opinions to this case; rather, his methodology was challenged as unreliable. Unreliable expert testimony may be excluded under Rule 702. *See TXI Transp.*, 306 S.W.3d at 234. We review a trial court's exclusion of expert testimony for an abuse of discretion. *Honeycutt*, 24 S.W.3d at 360; *see Cooper Tire & Rubber Co. v. Mendez*, 204 S.W.3d 797, 800 (Tex. 2006) (stating that abuse-of-discretion standard applies to review trial court's determination of whether admissibility requirements for expert testimony were met).

The Texas Supreme Court identified six factors in *Robinson* to assist courts in determining the reliability of an expert's testimony, including: (1) the extent to which the theory has been or can be tested; (2) the extent to which the technique relies upon the subjective interpretation of the expert; (3) whether the theory has been subjected to peer review and/or publication; (4) the technique's potential rate of error; (5) whether the underlying theory or technique has been generally accepted as valid by the relevant scientific community; and (6) the non-judicial uses which have been made of the theory or technique. 923 S.W.2d at 557. Subsequently, the court clarified that *Robinson*'s six factors are nonexclusive and "do not fit every scenario." *TXI Transp.*, 306 S.W.3d at 235; *Gammill v. Jack Williams Chevrolet, Inc.*, 972 S.W.2d 713, 726 (Tex. 1998).

Here, for instance, Hata relied on his professional experience, Ruben's medical records, deposition testimony in this case, and medical literature to opine that the concurrent administration of medications to Ruben and the lack of pulse-oxygen monitoring during his respiratory decline led to his respiratory event of December 1, which led to the deprivation of oxygen to his brain, which led to his brain damage, which led to the commencement of life support, and ultimately resulted in his death when support was withdrawn. There would be no practical way for Hata's peers to conduct objective, randomized experiments to test the validity of his two specific opinions about causation, i.e., it would not be ethically possible to: (1) administer a combination of Ativan, morphine, and Phenergan to a patient—after a 10 milligram dose of Haldol—to determine how soon they brought about a respiratory event, or (2) neglect a respiratory-compromised patient who is deprived of pulse-oximetry monitoring—or one placed on pulse-oximetry monitoring—to determine how soon nursing intervention would need to begin without further compromising the patient's health. *See Transcontinental Ins. Co. v. Crump*, 330 S.W.3d 211, 217 (Tex. 2011); *Robinson*, 923 S.W.2d at 557.

Thus, in addition to any applicable *Robinson* factors, when experts rely on experience and training rather than a particular methodology to reach their conclusions, reviewing courts determine whether there may be "simply too great an analytical gap between the data and the opinion proffered" for the opinion to be reliable. *Gammill*, 972 S.W.2d at 726; *see Fennern v. Whitehead*, No. 03-09-00570-CV, 2010 Tex. App. LEXIS 4587, at \*5 (Tex. App.—Austin June 18, 2010, no pet.) (mem. op.); *see also Crump*, 330 S.W.3d at 217 (noting that *Robinson* and *Gammill* analyses were appropriate in assessing reliability of physician's testimony based on differential diagnosis);

TXI Transp., 306 S.W.3d at 239 ("Reliability may be demonstrated by the connection of the expert's theory to the underlying facts and data in the case."). However, trial courts are not required to ignore fatal gaps in an expert's analysis, to consider assertions that are simply incorrect, or to consider evidence connected to existing data only by the expert's say-so. See Cooper Tire, 204 S.W.3d at 800-01. The underlying data should be independently evaluated to determine whether the opinion itself is reliable. Merrell Dow Pharm., Inc. v. Havner, 953 S.W.2d 706, 713 (Tex. 1997). Ultimately, the trial court's task is not to determine whether the expert's conclusions are correct, but rather whether the analysis the expert used to reach those conclusions is reliable and therefore admissible. TXI Transp., 306 S.W.3d at 239 (citing Zwahr, 88 S.W.3d at 629; Gammill, 972 S.W.2d at 728); Keo v. Vu, 76 S.W.3d 725, 734 (Tex. App.—Houston [1st Dist.] 2002, pet. denied).

To recover on a claim of medical negligence, a plaintiff must prove to a reasonable medical probability that the defendant's negligence proximately caused the complained-of injuries. *Columbia Rio Grande Healthcare, L.P. v. Hawley*, 284 S.W.3d 851, 860 (Tex. 2009) (citing *Park Place Hosp. v. Estate of Milo*, 909 S.W.2d 508, 511 (Tex. 1995)). Proximate cause consists of two components: cause-in-fact and foreseeability. *Id.* (citing *LMB, Ltd. v. Moreno*, 201 S.W.3d 686, 688 (Tex. 2006) (per curiam)). Demonstrating that negligence was a cause-in-fact of an injury requires proof that (1) the negligence was a substantial factor in causing the injury, and (2) without the act or omission, the harm would not have occurred. *Id.* "These standards bar recovery by a patient if a condition preexists the negligence of a health care provider and at the time of the negligence, the condition resulted in the patient having a 50% or less chance of cure or survival."

*Id.* (addressing propriety of jury instruction and quoting *Kramer v. Lewisville Mem'l Hosp.*, 858 S.W.2d 397, 400 (Tex. 1993)).

An expert's causation opinion is the equivalent of "no evidence" if it is based completely on speculation and surmise rather than reasonable medical probability. *Keo*, 76 S.W.3d at 734; *Onwuteaka v. Gill*, 908 S.W.2d 276, 283 (Tex. App.—Houston [1st Dist.] 1995, no writ); *see Tennyson*, 2004 Tex. App. LEXIS 350, at \*31 (noting "analytical gap" in expert's analysis of how failure to timely diagnose and treat patient's condition ultimately caused his death); *see also Schaefer v. Texas Emp'rs Ins. Ass'n*, 612 S.W.2d 199, 204-05 (Tex. 1980) (holding, in workers' compensation case, that there was no evidence of how disease was transmitted to Schaefer or that bacteria suspected of causing disease existed where he worked). Generally, factual weaknesses underlying an expert's causation opinion go to the testimony's weight, not its admissibility. *Keo*, 76 S.W.3d at 734; *see TXI Transp.*, 306 S.W.3d at 239 (citing *Ford Motor Co. v. Ledesma*, 242 S.W.3d 32, 40-41 (Tex. 2007)). With these standards in mind, we consider whether the determination that Hata's causation testimony fell below Rule 702's reliability threshold was an abuse of discretion.

### Reliability of Hata's causation opinion

At the *Daubert/Robinson* hearing, the Hospital challenged the reliability of Hata's testimony, arguing that he relied only on speculation to opine that Ruben's respiratory event on December 1, 2003, proximately caused his death twelve days later. Constancio responded that the evidence supported Hata's opinion that the drug combination administered to Ruben, after he received the Haldol, caused his "respiratory event."

To refine our review of this issue, it is helpful to note where both experts' opinions in this case align and where they diverge. In several respects, Hata's testimony aligns with that of the Hospital's expert, Marck. Both agree that the cause of Ruben's death was the withdrawal of life support and that the reason necessitating the institution of life support was the respiratory event that occurred on December 1 at approximately 3:30 a.m., resulting in Ruben's brain damage. Both experts agreed that the medical records did not contain sufficient evidence suggesting that a stroke or a pulmonary embolus was a possible explanation for the event, but they disagreed about what did explain it. Marck opined that the respiratory event occurred because of Ruben's MRSA sepsis, while Hata attributed it to the drugs administered to Ruben concurrently at 1:45 a.m. and the failure to have Ruben on a pulse-oxygen monitor.

#### 1. Concurrent administration of medications

The Hospital argues that Hata's opinions were "not based upon appropriate evidence, but only on speculation and assumptions," and its motion to exclude Hata's testimony complained that Constancio "wholly failed to provide any evidence of probative value to prove that the patient's death [on December 13, 2003] was proximately caused by the respiratory arrest which occurred on December 1, 2003." The Hospital's brief rephrases that complaint, stating that Hata "does not have any valid way to determine how the medications he is critical of contributed to Ruben's death."

However, the record reflects that Hata's opinion relied on Ruben's medical records, published information on the risks of the intravenous use of the medications, his experience with patients in using the medications, and Constancio's deposition testimony about her observations of Ruben. During his deposition, Hata testified that Ruben received Ativan, morphine, and

Phenergan in a very short period of time. Hata stated that as a pulmonologist and anesthesiologist, he prescribed these medications to patients on a regular basis, he was familiar with published information on them, and he provided references in a packet of information addressing "major concerns" that "if you're going to use these IV, there is risk for respiratory depression and oversedation."

Additionally, Hata testified that because of the published half-life of Haldol, he believed that the Haldol administered previously to Ruben was still in his system when he received the Ativan, morphine, and Phenergan. Hata stated that Phenergan "can potentiate the effects of all the drugs," meaning that "it can increase, for example, the pain relief, but it can also increase the effects of sedation." Marck, the hospital's expert, agreed that there is an "additive" or "synergistic" effect of putting all four of those drugs together, meaning that "one drug potentiates the effect of another, even beyond what the individual drug itself would give." Hata reasoned that when dealing with a patient like Ruben, who already had significant respiratory compromise, there is a concern about giving drugs that would further compromise the patient.

Hata continued that on December 1 at 3:30 a.m., based on the deposition testimony of Ruben's wife, Ruben "was having increased respiratory difficulties." Ruben "was found with very labored respirations," a "respiratory rate that was reportedly very, very slow," he was "pale" and "unresponsive," and appropriately, "[t]he staff at that point called a code." Hata opined that "all the evidence supports that this was a respiratory—the patient had his event because of respiratory

<sup>&</sup>lt;sup>8</sup> The record reflects that Hata's deposition exhibits 3 and 5 contain the published drug information that Hata reviewed and provided. Although the exhibits are not in the record, the parties do not dispute their production at the deposition or their use as authority.

suppression." Hata stated the physical effect of the medications, specifically linking them to suppressed respiratory drive and brain damage:

- Q. Explain to us in common terms what happens as a result of the respiratory arrest.
- A. What happens when a person has medications of this sort, combined with underlying disease, is a patient's blood oxygen level goes down. All right. With that, a patient will respond by trying to breathe faster, but with the sedation, with the suppression of his respiratory drive by medications, oxygen level will drop to a life-threatening level. The heart can stop, you can have low blood pressure, and the brain is damaged.

Hata further detailed the facts from Ruben's medical records supporting the opinion that Ruben's respiratory event occurred because of the known effect of the medications:

- Q. What was the cause, in your opinion, within reasonable probability, of the cause of the respiratory depression?
- A. I believe the evidence supports that it was a combination of all three drugs that he received in a very rapid fashion, combined with his underlying compromised state.
- Q. What do you base that on, Doctor?
- A. Mr. Constancio had multiple predictors that he was going to have respiratory failure; markedly abnormal vital signs in terms of his pulse ox showed that his saturation was 84 percent at one period of time. He had a markedly abnormal exam in terms of his lung exam. He had had increasing tachypnea, which I've included reference in your packet that that is also a high risk factor for predicting cardiac arrest, and he had received four very potent medications which are known to cause respiratory depression. When he was found by the physicians at this time, they found a pulse initially suggesting that this was a respiratory event.

. . . .

Q. When you order medications like Ativan, Haldol, morphine, and Phenergan—You've prescribed all four of those; right?

A. Yes.
Q. Do you know what the pharmacological effects of those are on patients?
A. I do.
Q. Do you have any doubt in your mind that you have adequate training, knowledge, and experience with those medications to know what the effects of those are on patients such as Mr. Constancio?
[objections omitted]
A. I believe I have a very good foundation of effects in patients like this.
••••
Q. Have you studied them and used them in the practice of your profession?
A. Yes.
Q. Did you learn about them in medical school?
A Yes.
Q. And in residency?
A. Yes.
Q. In fellowship?
A. Yes.
Q. Do you teach about the facts of those four drugs to residents?
A. Yes.
Q. To fellows?
A. Yes.

Hata pointed to the temporal relationship between the administration of the medications and the respiratory event and, factoring in Ruben's sepsis, he opined that the medications were the critical "last straw" in causing Ruben's respiratory event:

- Q. So if I understand your opinions with respect to Mr. Constancio's underlying MRSA, your opinion within a reasonable medical probability as to what caused his code at 3:40 a.m. is the fact that three medications were administered at 1:45 a.m.; is that right?
- A. I would expound on that, if I may.
- Q. Go ahead.
- A. I think that when a patient like this dies, it's usually multiple factors. I think the patient's underlying disease contributed to his respiratory failure. I think the patient was likely septic and having increasing respiratory compromise. I think the final straw was receiving three medications—or, actually, four medications over a short period of time which caused respiratory depression.

Given Hata's testimony and its stated foundation on Ruben's medical records, Hata's professional experience, deposition testimony in this case, and medical literature, the Hospital's contention that Constancio "wholly failed to provide any evidence of probative value" to show that Ruben's death on December 13, 2003 was proximately caused by his "respiratory arrest" on December 1, 2003 is unpersuasive. Hata's testimony lacks the type of analytical gap identified in *Tennyson*, a case cited by the Hospital, in which the expert's causation opinion never stated how a particular type of abscess or infection caused death generally or the patient's cardiac arrest specifically, but offered only that "early surgical drainage often leads to a good result." *See Tennyson*, 2004 Tex. App. LEXIS 350, at \*30-31. Nor does Hata's causation testimony suffer from the type of analytical gap found in the causation testimony of an expert in *Badhiwala v. Favors*,

340 S.W.3d 560, 568 (Tex. App.—Dallas 2011, no pet.), who failed to connect the conduct of any hospital personnel to a patient's cardiorespiratory failure from side effects of drugs she was prescribed at admission.

Hata's testimony is more like the unobjected-to causation testimony that an expert presented to the jury in THI of Tex. at Lubbock I, LLC v. Perea, 329 S.W.3d 548, 579 (Tex. App.—Amarillo 2010, pet. denied), which "established a traceable chain of causation from the condition—[the patient]'s arrest—back to the event—the administration of multiple doses of Ativan." The physician expert in *Perea* opined that the patient—a seventy-eight-year-old man with a history of heart disease complicated by respiratory issues and diabetes—was oversedated and overdosed after he received a second dose of Ativan. *Id.* at 556, 562, 577. The expert opined that "[h]is breathing became increasingly more shallow until there was insufficient oxygen to support the functions of his heart or brain causing his heart to go into arrhythmia until he suffered a cardiac arrest and finally quit breathing altogether due to respiratory depression." Id. at 562, 577; see also Sanjar v. Turner, 252 S.W.3d 460, 467-68 (Tex. App.—Houston [14th Dist.] 2008, no pet.) (concluding that causation opinion in expert's report was sufficient in that it explained basis for expert's statements and described causal link between patient's congestive heart condition, depression of her respirations from overmedication, and failure to adequately monitor her deteriorating condition).

In *Perea*, approximately six hours passed between the time that the patient was administered medications and the time of his cardiac arrest. *Id.* at 578. Thus, the evidence offered by the claimants' expert in that case presented a weaker temporal connection than does the evidence

here, because fewer than two hours passed between Ruben's receipt of the medications and his respiratory event. *See Crump*, 330 S.W.3d at 219 n.3 (noting that while temporal proximity alone will not support inference of medical causation, "when combined with other causation evidence, evidence that conditions exhibited themselves or were diagnosed shortly after an event may be probative in determining causation" (quoting *Guevara v. Ferrer*, 247 S.W.3d 662, 667-68 (Tex. 2007)).

Hata's testimony offering a causal link between the effects of the administered medications and the respiratory event meets the minimum standards for reliability under *Robinson*. Hata relies on the medications' published literature instead of a "subjective interpretation" of the data. He considers Ruben's reported symptoms and the medical records to reach his opinion and rules out other theories in a process that accords with the differential diagnosis technique that is "generally accepted as valid" by the scientific community of physicians, and he utilizes the same methodology in a "non-judicial" setting when he treats patients who present with conditions like Ruben's. *See Robinson*, 923 S.W.2d at 557. Hata's testimony also satisfies *Gammill* by making a causal link between the concurrent administration of medications that are recognized in medical literature as respiratory depressants, the lack of continuous pulse-oxygen monitoring to alert Hospital staff to a decline in Ruben's respiratory function, the respiratory event, the lack of oxygenation to the brain, the brain damage, the commencement and discontinuance of support, and death; as such, there is not "too great an analytical gap between the data and the opinion proffered" to be reliable. *See Gammill*, 972 S.W.2d at 727.

However, this addresses only part of the Hospital's complaint about the unreliability of Hata's testimony. The Hospital also contended that Hata's opinion that Ruben would have survived was speculative and based only on assumptions. We turn now to Hata's causation opinion on continuous pulse-oxygen monitoring in addressing the Hospital's further contention.

# 2. Continuous pulse-oxygen monitoring

Hata's causation opinion attributes Ruben's respiratory event to the medications administered to him concurrently at 1:45 a.m., but Hata further opined that Ruben should have received continuous pulse-oxygen monitoring. Hata testified that if the staff had used continuous pulse-oxygen monitoring, even after the combination of medicines given to Ruben, there was a reasonable probability that Ruben would have received earlier oxygen intervention and survived. Hata testified that oxygen saturation is beneficial to patients like Ruben because respiratory failure, or failure of the lungs, is a complication of diabetic ketoacidosis, and having oxygen saturation information would have helped clinicians and nurses to know that he was doing poorly. Hata further testified that a pulse oximeter is a noninvasive, effective device that usually fits on a finger and is used in many intensive and intermediate care units to monitor oxygen in a patient's blood. The device will sound an alarm if a patient's oxygen level falls to life-threatening levels so that the health care provider can increase the oxygen or have other medical interventions. Hata specified the particular usefulness of continuous pulse-oxygen monitoring in Ruben's case:

Q. Do you have an opinion from the time he was admitted—Mr. Constancio was admitted into the step-down unit, up until the time of his arrest, whether or not he should have been under constant blood oxygenation monitoring; first of all, do you have an opinion?

A. It's my opinion he should have had continuous monitoring—

Q. Why?

A. —of oxygen saturations. The major reasons were that the patient had shown evidence of hypoxemia, that is, low blood oxygen levels, during the stay. Secondly, we know because of the del[i]rium he was at higher risk for failure of the lungs. Third, this is an intermediate care unit for somebody who the physician thought was at high risk.

Relying entirely on two excerpts of Hata's testimony, the Hospital argues that Hata's causation opinion was: (1) speculative in requiring assumptions that Ruben could and would have responded to treatment for sepsis and (2) incapable of testing because Hata declined to assign percentages of causation between Ruben's underlying condition and his medications:

Q: How, in your opinion, within reasonable medical probability did this respiratory event at 3:30 on the 1st play into his ultimate death, if at all?

A: I believe it was a major factor.

Q: Explain how?

A: Once the patient became hypoxemic and developed encephalopathy, ultimately there was a decision to limit support for the patient. If the patient had responded, his sepsis could have been treated, his DKA would have responded, and I think he would have survived.

. . .

Q: What percentage of the cause of his death do you attribute to these medications that you've talked about?

A: Again, that is very difficult. My concerns are the medications led to the rapid deterioration in terms of his respiratory status.

A: May I go on?

- A: If this patient had been a 25-year-old, healthy individual, these medications may not have caused the same degree of compromise; but this patient was, again, older. He had chronic medical problems. So I think all three together—all of the medications together caused his respiratory failure.
- Q: But you cannot tell the jury or me what percentage is attributable to his underlying disease as opposed to his medications?
- A: I think that's very hard to do that in a valid fashion.

The Hospital does not cite any legal authority requiring an expert to assign percentages between causation factors of death or injury; rather, the controlling legal authority on proximate cause requires a showing that the negligence was a substantial factor in causing the injury and without which the harm would not have occurred. *See Hawley*, 284 S.W.3d at 860. In any event, Hata did opine that Ruben would have survived, even with the sepsis:

Q. I know you're reluctant to do percentages, but would you agree with me that with all of the things that we've talked about, and the increased risk of mortality that we've added to the equation as we've gone through Mr. Constancio, that more likely than not he had a substantial risk of mortality when he first hit the door at Shannon?

# [objection omitted]

- A. When you say substantial, what do you mean by that?
- Q. Good. Was it more likely than not that this was going to be a terminal illness for him when he hit the door of the emergency room?
- A. When you say that, that infers you mean greater than 50 percent?
- Q. Yes, sir. I'm trying to avoid that percentage, but that's what I'm asking straight up; yes, sir.
- A. I don't think so.

- Q. It could be close to that; agreed? Again, you can't use percentages.
- A. I thought he had a better chance than that to survive, particularly with the response that he had.

Hata testified that "[i]f you intervene early, you can prevent deaths from sepsis," and noted that Ruben responded well to his initial treatment and did not have any other organ failure. Hata opined that even with the combination of medicines given to Ruben, if the staff had used continuous pulse-oxygen monitoring, there was a reasonable probability that Ruben would have survived:

- Q. Well, let me ask you another question. Would you agree with me that it was going to be a significant challenge for him to overcome the occult MRSA infection that he had, given his underlying health conditions; would you just agree with that statement?
- A. Yes. Once, after his arrest, he was placed on antibiotics, and initially he required some hemodynamic support, but those were—the hemodynamic support was—I mean, he did not require that for a long time. He did not have evidence of other significant organ failure. So once he received appropriate therapy, he seemed to get better, except for his brain injury.

. . .

- Q: Now, what difference would it have made, Doctor, if he had been on continuous pulse ox monitoring beginning at midnight, and even after he got these three medications? What difference, if any, would that have made, in your opinion?
- A: The benefits of having pulse oximetry continuously is that an alarm will sound, health care providers will go to the patient immediately and provide adequate support.
- Q: What, in your opinion, within a reasonable probability, would have happened if we assume this whole fact scenario that he got the Haldol at the afternoon, that he had the respiratory changes that we saw late in the night into the early morning of the 1st, that he even got these three drugs; had he been on a continuous pulse ox monitoring, what, in your opinion, would have been the results for Mr. Constancio?

A: I believe the patient would have survived. Q: Why? A: I believe that— Q: Why do you believe he would have survived? A: I believe that with appropriate support, treatment of his sepsis, which he was shown to have, he would have responded to. I believe that his major event in terms of having hypoxic encephalopathy would have been prevented by early use of oxygen. Q: Explain that. If he had been on the pulse ox after the 1:45 medications were given? A: Yes. Q: Do you have an opinion within reasonable medical probability whether or not his oxygen saturations decreased up to the time of his respiratory event at 3:30? A: Based on all of the evidence I have, I believe that his oxygen saturations would have dropped to life threatening levels. Q: If he would have been on—the little thing on his finger, the monitoring— A: Yes. Q: If it was hooked up, and it was working, would an alarm have sounded? A: Yes. Q: If an alarm had sounded, what is the staff or a nurse supposed to do? A: The staff will come to bedside, assess the patient, provide oxygen.

Q: Was that done in this patient, based on the records you've seen?

A: Based on the records I've seen, it was not done until it was too late.

Q: Let me re-ask this. Do you have an opinion as to whether or not the alarm would have sounded before it got to the point that he was in arrest that led to brain damage?

A: I believe that to be so.

Q: If the alarm had sounded prior to him getting to O2 sats to the point he had gotten brain damage, were interventions available that would have prevented the brain damage, within reasonable medical probability?

A: Yes.

Q: What would those interventions have been at this facility?

A: Based on all of the information I have, this is a very solid facility. They would have called people to the bedside, they would have provided oxygen, and they would have begun resuscitation.

Q: Resuscitation would include turning up his oxygen?

A: Yes.

Q: Could it include turning up his oxygen?

A: It could include increasing oxygen.

Q: Could it be call a code?

A: Yes.

Q: Could it include intubating the patient?

A: Yes.

Q: Within reasonable probability, had those things been done prior to the arrest, would he have survived?

A: I believe so.

The Hospital's expert, Dr. Marck agreed that timely medical intervention would have prevented Ruben's respiratory event, that Ruben showed signs of responding to his treatment for sepsis, and that nurses could use their own judgment to check a patient's blood oxygen saturation without a physician's order:

Q: And just so I—because we've got to change the tape, and I just want to finish this part. So what I'm hearing you say, if he would have gotten adequately oxygenated in the 1:00 a.m., 1:30 a.m. time frame—

A: Uh-huh.

Q: —had that been achieved—

A: It could have made a difference.

Q: —and it probably would have made a difference?

A: That's—that's possible. Yes. I'll agree with that.

Q: Those are kind of key words, probable, possible, could have. But what I want to know is based upon what you see after the event and before the—before the event. If he had gotten that oxygenation previously, he probably would not have had the event of 3:30. Correct?

A: That's possible. I would agree with that.

Q: You would agree with that?

A: Yes.

. . . .

Q. After the event of 3:30 in the morning—

A. Okay.

Q. —and they realized that he was septic at that point in time. Am I right?

A.	Yes.	
Q.	They began treating that, didn't they?	
A.	Yes.	
Q.	Was he responding to that treatment?	
[objection omitted]		
A.	There were signs of that, yes.	
Q.	Is that a good sign or a bad sign?	
A.	That's a good sign.	
Q.	All right.	
A.	His white blood cell count was coming back up. And yeah, it looked like things were improving.	

[objections omitted]

treatment, did you?

A. No.

. . . .

Q. All right. And in a patient like Mr. Constancio, the nurses don't have to have a—an order to check his O2 saturations if they think in their judgment there's a circumstance that says are we getting good oxygenation for the patient?

Q. And there was—save and except for his—the brain injury that he had, you didn't see anything that was keeping him from continuing to improve and respond to the

A. That's right.

Similar testimony came from Cynthia Clark, who worked for the Hospital as a bedside nurse and charge nurse. She worked at the Hospital from 11:00 p.m. on November 30 until

7:00 a.m. the next day, cared for Ruben, and made entries in medical records about his care. She testified that normal respirations for a patient with DKA are between 18 and 24, and agreed that there was a significant change between Ruben's vital signs at midnight, which showed respirations at 22, and the respiratory therapist's assessment forty minutes later, which showed respirations at 32. Clark also testified that with such information, a reasonable and prudent nurse should have gone to Ruben's bedside, assessed him, and checked his pulse oxygen.

Finally, with regard to the manner in which Hata worked through the data to his conclusions, Marck acknowledged that he had no criticism of the methodology that Hata used in reaching his causation opinion. *See Crump*, 330 S.W.3d at 217 (stating that *Robinson* reliability inquiry focuses "solely on the underlying principles and methodology, not on the conclusions they generate"); *Robinson*, 923 S.W.2d at 557. Marck testified that Hata used "a very academic approach" by considering the literature, pharmacology, his experience, and Ruben's condition to reach his conclusions. Marck further agreed that Hata was not "out of line" for coming up with his theory linking causation to the drugs.

A fair summary of Hata's causation testimony is that but for the concurrent administration of the medications causing Ruben's respiratory event, and the Hospital staff's lack of continuous pulse-oxygen monitoring to alert when intervention was needed to prevent it, Ruben would have lived. Hata specifically attributes Ruben's death to his receipt of a combination of drugs with published respiratory-suppressing effects, administered concurrently without proper pulse-oxygen monitoring, which resulted in his suppressed respiratory function as shown by the medical records and deposition testimony, a lack of notification to hospital staff to intervene when his blood

oxygen level declined, his loss of oxygen to the brain, the institution of life support, its eventual withdrawal, and his death. Hata's causation opinion relied on evidence in the medical records to refute Marck's suggestion that Ruben's death due to sepsis was inevitable, pointing out Ruben's positive response to his treatment and his lack of other significant organ failure.

By the Hospital's own expert's admission, Hata utilized a "very academic approach" in reaching his opinions. Nonetheless, as in many cases, the *Robinson* factors do not align perfectly with the issues in this case. *See Robinson*, 923 S.W.2d at 557. As previously noted, Hata's specific opinions are not susceptible to "testing" or "peer review," nor does his methodology have a mathematical "rate of error." *See id.* However, his reliance on the medications' published literature satisfies those criteria to some degree and tends to negate a "subjective interpretation" of the data, his process of considering Ruben's reported symptoms and the medical records to reach his opinion and ruling out other theories accords with the differential diagnosis technique that is "generally accepted as valid" by the scientific community of physicians, and Hata utilizes the same methodology in a "non-judicial" setting when he treats patients who present with conditions similar to Ruben's. *See id.* 

We conclude that Hata's testimony, which makes a causal link between the concurrent administration of medications that are recognized in medical literature as respiratory depressants, the lack of continuous pulse-oxygen monitoring to alert Hospital staff to a decline in Ruben's respiratory function, the respiratory event, the lack of oxygenation to the brain, the brain damage, the commencement and discontinuance of support, and death, does not present "too great an analytical gap between the data and the opinion proffered" to be reliable. *See Gammill*, 972 S.W.2d

at 727. Hata's testimony offered more than merely "his credentials and a subjective opinion." *Cf. Cooper Tire*, 204 S.W.3d at 801; *Havner*, 953 S.W.2d 706 at 712; *see also Viterbo v. Dow Chem. Co.*, 826 F.2d 420, 424 (5th Cir. 1987). Because Hata had a sufficiently reliable foundation for his opinions on proximate cause to warrant admission of his testimony linking the respiratory event of December 1, 2003 to Ruben's death, the exclusion of Hata's testimony was an abuse of discretion. Accordingly, we sustain Constancio's first issue.

Having determined that Hata's causation testimony should not have been excluded, we must now determine whether Hata's testimony constituted more than a scintilla of evidence to raise a genuine issue of material fact in response to the Hospital's no-evidence motion for summary judgment.

### Hospital's no-evidence motion for summary judgment

In her second issue, Constancio contends that the district court erred in granting the Hospital's no-evidence motion for summary judgment. As previously noted, the court excluded Hata's testimony specifically as to causation and clarified that its ruling and entry of the exclusion order preceded its consideration of the Hospital's no-evidence motion for summary judgment.

A party seeking a no-evidence summary judgment contends that there is no evidence of one or more essential elements of a claim on which an adverse party would have the burden of proof at trial. Tex. R. Civ. P. 166a(i); *Hamilton v. Wilson*, 249 S.W.3d 425, 426 (Tex. 2008). If the respondent does not produce summary judgment evidence raising a genuine issue of material fact, the trial court must grant the motion. Tex. R. Civ. P. 166a(i); *Hamilton*, 249 S.W.3d at 426. We review a no-evidence summary judgment for evidence that would enable reasonable and

fair-minded jurors to differ in their conclusions. *Hamilton*, 249 S.W.3d at 426 (citing *City of Keller v. Wilson*, 168 S.W.3d 802, 822 (Tex. 2005)). A no-evidence point will be sustained when (1) there is a complete absence of evidence of a vital fact, (2) the court is barred by rules of law or evidence from giving weight to the only evidence offered to prove a vital fact, (3) the evidence offered to prove a vital fact is no more than a mere scintilla, or (4) the evidence conclusively establishes the opposite of a vital fact. *King Ranch, Inc. v. Chapman*, 118 S.W.3d 742, 751 (Tex. 2003) (quoting *Havner*, 953 S.W.2d at 711). When determining whether more than a scintilla of evidence has been produced in response to a no-evidence motion for summary judgment, we view the evidence in the light most favorable to the non-movant. *Ford Motor Co. v. Ridgway*, 135 S.W.3d 598, 601 (Tex. 2004). Because the district court's order does not specify the grounds for its ruling, we may affirm the summary judgment if any of the theories presented to the district court and preserved for appellate review are meritorious. *Browning v. Prostok*, 165 S.W.3d 336, 344 (Tex. 2005) (citing *Provident Life & Accident Ins. Co. v. Knott*, 128 S.W.3d 211, 216 (Tex. 2003)).

To prevail on a medical-malpractice claim, the plaintiff must prove: (1) the health care provider had a duty to act according to a certain standard; (2) the provider breached that standard; and (3) the breach proximately caused the plaintiff to sustain injury. *See Hamilton*, 249 S.W.3d at 426 (recognizing required elements applied by appellate court). Constancio contends that if Hata's causation testimony had not been excluded, the Hospital's no-evidence motion for summary judgment would have been denied because she presented more than a scintilla of evidence to create an issue of material fact on her claim that the Hospital's nurses were negligent. The

Hospital's motion argued that there was no evidence of Constancio's wrongful death damages and, if Hata's testimony were excluded, Constancio would have no evidence of causation.

Although two of the Hospital's witnesses, Dr. Marck and Nurse Clark, testified as to certain aspects of causation—namely, that Ruben's respiratory event "almost had to be" the cause of his brain damage, and that a reasonable and prudent nurse should have included pulse oximetry in an assessment of Ruben's changing respiratory rate—Hata's testimony was essential because it was the only expert testimony affirmatively linking the nurse-administered medications and lack of continuous pulse-oxygen monitoring during Ruben's respiratory decline to his ultimate death. See American Transitional Care Ctrs. of Tex. v. Palacios, 46 S.W.3d 873, 876 (Tex. 2001) ("Texas courts have long recognized the necessity of expert testimony in medical-malpractice cases."); Chester v. El-Ashram, 228 S.W.3d 909, 914 (Tex. App.—Dallas 2007, no pet.) ("Without expert testimony in a medical malpractice action, there is no issue to submit to the jury."); Wiggs v. All Saints Health Sys., 124 S.W.3d 407, 414 (Tex. App.—Fort Worth 2003, pet. denied) (affirming trial court's take-nothing judgment because claimants' sole causation evidence supporting their claims was from experts' testimony that court had excluded as unreliable); see Tennyson, 2004 Tex. App. LEXIS 350, at \*32 (concluding that expert's testimony was sole evidence supporting medicalmalpractice action and after its exclusion claimant "was left with no evidence to defeat Appellees' no-evidence motion for summary judgment").

As the hospital predicted in its argument below, a favorable ruling on its Daubert/Robinson challenge cleared the way for its no-evidence motion for summary judgment: "[I]n the event the Court sustains the Defendant's Motion and precludes the testimony of Plaintiffs' expert witness as to offering any evidence as to any departure from the standard of care and/or proximate cause, then Plaintiffs would be precluded from offering any evidence of liability or causation and summary judgment as to those allegations would be ripe for dismissal." If Hata's testimony had not been excluded, Constancio would have presented greater than a scintilla of evidence on her allegation of the Hospital's liability for the negligence of its nursing staff. Because we have previously determined that the district court abused its discretion in striking Hata's causation testimony, and because his testimony constitutes more than a scintilla of evidence creating a material fact issue as to the element of causation, we conclude that the district court erred in granting the Hospital's no-evidence motion for summary judgment on this ground. *See* Tex. R. Civ. P. 166a(i).

Further, as to the Hospital's argument that there was no evidence of Constancio's wrongful death damages, Constancio provided an affidavit to the district court describing the history of her relationship with her husband, her presence at his side as he was treated and when he died at the Hospital, her emotional pain in his absence, and her grief over the loss of his advice, his emotional support, and their plans for the future together. Wrongful death damages may include recovery for mental anguish, loss of companionship and society, pecuniary losses, and loss of inheritance. *Moore v. Lillebo*, 722 S.W.2d 683, 687 (Tex. 1986); *see* Tex. Civ. Prac. & Rem. Code Ann. §§ 71.001-.012 (West 2008) (Wrongful Death Act). The Hospital did not challenge Constancio's affidavit.

We conclude that Constancio's affidavit constitutes more than a scintilla of evidence creating a material fact issue as to her wrongful death damages; thus, the Hospital was not entitled

to a no-evidence summary judgment on the alternative ground raised in its motion. See Tex. R.

Civ. P. 166a(i); *Knott*, 128 S.W.3d at 216; *Lillebo*, 722 S.W.2d at 687. Accordingly, we sustain

Constancio's second issue.

CONCLUSION

Having sustained both of Constancio's issues, we reverse the district court's

order granting the Hospital's Daubert/Robinson Challenge and Motion to Exclude Opinion

Testimony of J. Stephen Hata, M.D., reverse the order granting the Hospital's No-Evidence Motion

for Summary Judgment, and remand this case to the district court for further proceedings consistent

with this opinion.

Jeff Rose, Justice

Before Justices Puryear, Pemberton and Rose

Reversed and Remanded

Filed: May 22, 2012

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