STATE OF MINNESOTA
IN COURT OF APPEALS
A08-1128

Joseph Crosby, as Trustee
for the next-of-kin of James Floyd Hall,
Appellant,

vs.

Karla G. Myhra-Bloom, M. D., et al.,
Respondents.

Filed April 7, 2009
Reversed and remanded; motion granted
Johnson, Judge

Hennepin County District Court
File No. 27-CV-07-1959

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Considered and decided by Halbrooks, Presiding Judge; Johnson, Judge; and Poritsky, Judge.[*]

[*]Retired judge of the district court, serving as judge of the Minnesota Court of Appeals by appointment pursuant to Minn. Const. art. VI, § 10.

U N P U B L I S H E D O P I N I O N

JOHNSON, Judge

James Floyd Hall died of cancer at the age of 64. In the three years preceding the diagnosis of his cancer, he had three x-rays of his lungs. The physician who reviewed the x-rays did not observe a tumor that allegedly was visible on the second and third x-rays. In this medical malpractice action, the district court granted summary judgment to the defendants on the ground that the plaintiff did not offer evidence sufficient to create a genuine issue of material fact as to whether the defendants' alleged negligence was the proximate cause of Hall's death. The district court reasoned that the evidence is not sufficient to prove that, even if the lung tumor had been detected in the second x-ray, Hall likely would have survived the cancer. We conclude that the evidence of causation was sufficient to withstand the motion for summary judgment and, therefore, reverse and remand.

FACTS

Hall began smoking cigarettes in his youth and quit when he was approximately 58 years old. In 2003, when he was 60 years old, Hall began participating in a scientific study designed to determine whether x-rays or CT scans were the better means of identifying early-stage lung cancer. Participants in the study were divided into two groups. One group received CT scans on a recurring basis; the other group received x-rays on a recurring basis. Hall was randomly assigned to the group that received x-rays, which were reviewed by Consulting Radiologists, Ltd., one of two respondents on appeal.

While participating in the scientific study, Hall had three lung-cancer-screening x-rays. The first x-ray occurred on February 6, 2003. Dr. Karla G. Myhra-Bloom, a radiologist with Consulting Radiologists and the second respondent on appeal, analyzed the x-ray image. Afterward, Hall received a letter stating that the results were "not suspicious for lung cancer." The second x-ray occurred on July 28, 2004, and Dr. Myhra-Bloom again analyzed the x-ray. Hall again received a letter stating that the results were not suspicious for lung cancer. The third x-ray occurred on August 17, 2005. Again, Dr. Myhra-Bloom reviewed the image, and Hall again received a letter stating that nothing suspicious was found.

On December 18, 2005, Hall experienced facial drooping and twitching, drooling, garbled speech, seizures, partial paralysis, and spasms. He visited an emergency room in the city of Little Falls, where he was diagnosed with Bells Palsy. On January 22, 2006, Hall returned to the emergency room because of weakness in his left arm and persistent facial drooping and twitching. A CT scan of his head revealed an "18 mm lesion in right frontal lobe" of his brain and a moderate amount of edema. The same day, Hall was transferred to the St. Cloud Hospital, where he underwent an MRI of his brain and a CT scan of his chest. The MRI image showed a nodular mass in his brain measuring 2.3 centimeters in diameter, with surrounding edema that was approximately 5.5 centimeters by 4.5 centimeters. The CT scan of his right lung showed, among other things, a mass measuring 2.5 centimeters by 1.6 centimeters. Hall's treating oncologist determined that he had "metastatic bronchogenic carcinoma arising from the right lung with metastatic

disease to the brain and lymph nodes." Following additional tests, Hall was diagnosed with poorly differentiated non-small-cell lung carcinoma, stage IV.

In January 2007, Hall and his wife commenced this action, alleging that Dr. Myhra-Bloom and Consulting Radiologists were negligent in failing to identify and diagnose Hall's lung cancer in the July 2004 x-ray. Despite radiation and chemotherapy treatments, Hall died on August 16, 2007. After Hall's death, Joseph Crosby was appointed by the district court to be the trustee of this action, and the complaint was amended to allege a wrongful-death claim, seeking damages for loss of kinship and consortium and for funeral and medical expenses.

Meanwhile, in early August 2007, approximately one week before trial was scheduled to begin, respondents brought a motion *in limine* to strike Crosby's expert affidavits or, in the alternative, for judgment as a matter of law. Respondents argued that Crosby's expert affidavits failed to supply "the substance of the facts and opinions to which the expert is expected to testify, and a summary of the grounds for each opinion." Minn. Stat. § 145.682, subd. 4(a) (2008). In September 2007, respondents amended their motion due to the supplementation of one of the expert affidavits. In December 2007, the district court denied respondents' motion on the ground that Crosby's expert affidavits contained "a basic level of detail on their theory of the case." In its written decision, however, the district court noted that the "case may not have the requisite substance to withstand a motion for summary judgment."

In January 2008, respondents moved for summary judgment. In May 2008, the district court granted the motion, holding that Crosby had failed "to present a legally sufficient expert opinion on causation."[1] Crosby appeals.

D E C I S I O N

Crosby argues that the district court erred by holding that his evidence of causation is insufficient. As an initial matter, we must determine the applicable standard of review. The district court's decision referred to the requirements of Minn. Stat. § 145.682 (2008). A district court's dismissal of a complaint for failure to comply with section 145.682 is reviewed for abuse of discretion. *Broehm v. Mayo Clinic*, 690 N.W.2d 721, 725 (Minn. 2005). But the district court entered summary judgment, and the parties' appellate briefs are consistent in treating this appeal as one from a judgment entered pursuant to Minn. R. Civ. P. 56.03. In addition, the parties agreed at oral argument that the applicable standard of review is de novo. Thus, we will proceed to conduct a de novo review of the district court's decision, viewing the evidence in the light most favorable to the non-moving party. *See Osborne v. Twin Town Bowl, Inc.*, 749 N.W.2d 367, 371 (Minn. 2008); *Fabio v. Bellomo*, 504 N.W.2d 758, 761 (Minn. 1993).

To establish a prima facie case of medical malpractice, a plaintiff must offer evidence that is sufficient to prove (1) the standard of care recognized by the medical

[1]The district court also held that even if Crosby had sufficient evidence of causation, he had failed to present sufficient evidence of a resulting compensable loss. The district court further reasoned that Crosby's theory of liability was based on loss of chance, which, it stated, is not compensable in Minnesota. Neither of these grounds had been argued by respondents in their district court motion papers, and respondents do not argue on appeal that the district court's summary judgment should be affirmed on either of these grounds.

community as being applicable to case, (2) the defendant's departure from that standard of care, and (3) that the defendant's departure from the applicable standard of care was "a direct cause" of the patient's injuries. *MacRae v. Group Health Plan, Inc.*, 753 N.W.2d 711, 717 (Minn. 2008). To prove causation, a plaintiff must prove, typically with expert evidence, that "it is more probable than not" that the patient's injury "was a result of" the defendant's negligence. *Leubner v. Sterner*, 493 N.W.2d 119, 121 (Minn. 1992); *Cornfeldt v. Tongen*, 295 N.W.2d 638, 640 (Minn. 1980); *see also Reinhardt v. Colton*, 337 N.W.2d 88, 94-95 (Minn. 1983) (noting that expert testimony often is necessary in medical malpractice cases because subject matter is "not within the common knowledge of laymen"). In this case, the injury is Hall's death. *See Leubner*, 493 N.W.2d at 121. A medical expert's opinion concerning causation must be "based on an adequate factual foundation," which may include "legitimate inferences" with "probative value in determining disputed fact questions." *Blatz v. Allina Health Sys.*, 622 N.W.2d 376, 387 (Minn. App. 2001).

Crosby submitted affidavits of three experts in response to respondents' summary judgment motion. First, Marshall Golden, M.D., a radiologist, executed an affidavit stating that he reviewed Hall's three x-rays and "immediately identified a vague 1 cm opacity between the right 3rd and 4th ribs anteriorly" on the 2004 x-ray. He further states, "had the radiologist appropriately read the screening x-ray of 07/28/04 more likely than not further work up would have led to a diagnosis of lung cancer."

Second, and most significant for purposes of this appeal, John A. Wangsness, M.D., an oncologist, executed an affidavit stating that Hall likely would have survived

for five years if Dr. Myhra-Bloom had diagnosed his lung cancer in 2004. The most pertinent part of Dr. Wangsness's affidavit states:

> The primary tumor of the lung, if diagnosed and treated on or about 7/28/04 more likely than not would have been a Stage IA tumor with a 67% survivability for 5 years. In 2006, Jim Hall was diagnosed at Stage IV disease, which has a 1-2% survivability for 5 years.

Dr. Wangsness based this conclusion in part on a scientific article concerning the correlation between stages of lung cancer and survival rates. *See* Clifton F. Mountain, M.D., *Revisions in the International System for Staging Lung Cancer*, 111 Chest 1710 (1997).[2] Dr. Mountain's article is based on the International Staging System for Lung Cancer, which is a means of describing and grouping cancerous lung tumors by measuring three variables: the degree of spread of the primary tumor (T), the extent of regional lymph node involvement (N), and the presence or absence of distant metastases (M). *See id.* at 1711. When applied to a particular tumor, each of the three variables is assigned a value based on the severity or extent of that factor, such as 0 if the factor is absent, a number greater than 0 if that factor is present to some degree or another, or an "X" if there is no information about that factor. A particular case of cancer then may be classified according to the resulting three-part designation. According to Dr. Wangsness, the TNM staging model "is, and has been for many years, the primary model used for the choice of treatment, for the estimation of prognosis, and the possible selection of

[2]Respondents have moved to strike three other scientific articles from the appendix to Crosby's reply brief, as well as all references in the reply brief to those three articles. The three scientific articles were not relied upon by Crosby's experts and were not otherwise included in the district court record. Thus, the motion to strike is granted.

adjuvant therapy" for cancer. Dr. Mountain's study enhanced the usefulness of the TNM staging model by calculating an average survival rate for each classification. Mountain, *supra*, at 1712. Dr. Wangsness's affidavit states that Dr. Mountain's article is "generally accepted in the medical community" and "sets out, in clear terms, what criteria the scientific community uses to define the various stages of lung cancer."

Relying on the TNM staging model and Dr. Mountain's article, Dr. Wangsness states in his affidavit that, in July 2004, Hall had a tumor of less than 3 centimeters in diameter (which implies a value of T1 for the first variable), no regional spread (thus, N0 for the second variable), and no signs of distant metastasis (thus, M0). The resulting classification of T1N0M0 corresponds to a diagnosis of stage IA lung cancer. Dr. Wangsness assigned a value of 1 to the first variable because the July 2004 x-ray shows a 1-centimeter mass in Hall's lung. Dr. Wangsness assigned a value of 0 to the second variable because there was "no evidence on the screening x-ray of regional spread." Dr. Wangsness's assessment of N0 is bolstered by the affidavit of Dr. Golden, which states that the August 2005 x-ray shows, for the first time, "a prominence to the lung markings in the right hilar area that was not present" on the July 2004 x-ray. Dr. Wangsness assigned a value of 0 to the third variable because there is no indication of "[i]nvasion of local tissues, blood and/or lymphatics" or other evidence of distant metastases in July 2004, and because Hall "was not experiencing nor suffering from any focal signs of CNS involvement until December 2005." The affidavit of Ronald Citron, M.D., an oncologist, corroborates Dr. Wangsness's assessment of M0 on the ground that "Hall did not demonstrate any signs of neurological involvement until December 2005."

Third, Dr. Citron's affidavit generally reinforces Dr. Wangsness's staging of Hall's cancer as stage IA in July 2004, stating that "the most that anyone can say is that Mr. Hall could not be staged beyond a Stage I in July 2004. There was no evidence of metastasis at the time, *i.e.*, no regional nodal involvement or other distant metastases." Dr. Citron further states:

> [T]here is solid clinical evidence of what the tumor and surrounding region looked like in July 2004 and a seventeen month delay. In this circumstance, it is my opinion that Dr. Wangsness appropriately used the TMN Staging Model to arrive at a result that is reasonable, consistent with both the objective evidence and accepted understandings of cancer growth and proliferation.

Dr. Citron also acknowledges, "This is not to say that a physician could rule out a Stage IV cancer in July 2004 with absolute certainty; without a full clinical evaluation, including imaging, no one could make such a staging diagnosis with absolute certainty."

Crosby's expert evidence is sufficient to create a genuine issue of material fact concerning the third element of his claim, that there is a causal connection between Dr. Myhra-Bloom's alleged negligence and Hall's death. Dr. Wangsness's and Dr. Citron's opinion that the cancer in July 2004 was stage IA and had not metastasized is based on legitimate inferences using both the TNM staging model and the available clinical evidence from the 2004 and 2005 x-rays. *See Blatz*, 622 N.W.2d at 387 (noting that experts are "permitted to make legitimate inferences"). The expert affidavits provide sufficient detail to show that it is "more probable than not" that Hall had stage I cancer in July 2004, which progressed to stage IV by January 2006 because of the alleged negligent failure to diagnose. *See Leubner*, 493 N.W.2d at 121.

Respondents contend that Dr. Wangsness "has done nothing more than speculate that Mr. Hall did not have any cancer cells in his brain in July 2004." But Dr. Wangsness's opinion testimony is based on the evidence of Hall's condition, the TNM staging model, Dr. Mountain's article, and Dr. Wangsness's experience as an oncologist. Dr. Wangsness relied on Hall's medical records, including the July 2004 x-ray, to determine the extent of his cancer in July 2004, and he used a systematic approach to determining the survival rate that would have applied to Hall if his cancer had been diagnosed in July 2004. Dr. Wangsness acknowledges that a diagnosis of stage IA cancer in July 2004 cannot be made to an absolute certainty. But expert medical testimony need not be absolutely certain.

> It is well recognized that the rule that a verdict in a malpractice case cannot be based on speculation or conjecture as to cause does not necessarily require that the plaintiff prove causation by direct and positive evidence which excludes every other possible hypothesis as to the cause of the injuries. Generally, it is held that, after a fair preponderance of evidence discloses facts and circumstances proving a reasonable probability that the defendant's negligence or want of skill was the proximate cause of the injury, the plaintiff has supported his burden of proof sufficiently to justify a verdict in his behalf.

Walton v. Jones, 286 N.W.2d 710, 715 (Minn. 1979) (quoting *Schulz v. Feigal*, 273 Minn. 470, 476, 142 N.W.2d 84, 89 (1966)). Dr. Wangsness's affidavit states that his application of the TNM staging model was based on his "education and experience as a clinical oncologist for over 33 years, and knowledge of the medical literature." Dr. Wangsness's conclusion concerning causation also is based on Dr. Mountain's article, which states that a person with a lung tumor classified as T1N0M0 has a 67% chance of

surviving after five years of treatment. This number is of legal significance in this case because, under Minnesota law, a plaintiff in a medical malpractice case "must introduce medical testimony that it was more probable than not that the death resulted from the doctor's negligence." *Cornfeldt*, 295 N.W.2d at 640. Dr. Citron's affidavit corroborates Dr. Wangsness's opinion.

Respondents also contend that, as the district court reasoned, Crosby's experts have said nothing more than "earlier is better." It is true that, in one paragraph, the affidavit says that the "earlier diagnosis and treatment, the better your chances of survival." But the affidavit also says much more. Dr. Wangsness's affidavit and supplemental affidavits total 17 pages. Dr. Wangsness's opinion is unlike the "broad and conclusory statements as to causation" that have been held to be insufficient in expert affidavits. *Lindberg v. Health Partners, Inc.*, 599 N.W.2d 572, 578 (Minn. 1999) (holding that plaintiff failed to submit affidavit complying with Minn. Stat. § 145.682). As a whole, plaintiff's expert evidence thoroughly explains the distinctions between Hall's condition in July 2004 and his condition in January 2006 and quantifies the impact of the alleged negligence on his chances of survival.

Respondents further attack Dr. Wangness's expert opinion on the ground that he changed the bases of his opinion between his first affidavit and his supplemental affidavit, an assertion that Crosby disputes. That argument must be addressed to the jury. On review of a grant of summary judgment, we must consider the evidence in the light most favorable to the party against whom summary judgment was granted. *Anderson v. State, Dep't of Natural Resources*, 693 N.W.2d 181, 186 (Minn. 2005).

Respondents last contend that Crosby's expert evidence is not scientifically reliable. For example, respondents argue that Dr. Wangsness did not have an evidentiary basis for assigning a value of 0 to the M variable, as opposed to an "X," because no information was available concerning the presence or absence of distant metastases. This is an argument concerning the admissibility of Crosby's expert evidence, not its sufficiency. An expert's opinion is admissible if "scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue." Minn. R. Evid. 702. In a medical malpractice case, the expert's testimony must, first, be based on a scientific theory that is "generally accepted in the relevant scientific community" and, second, "be shown to have foundational reliability" because the application of the scientific theory "in the particular instance conformed to the procedure necessary to ensure reliability." *Goeb v. Tharaldson*, 615 N.W.2d 800, 814 (Minn. 2000); *see also McDonough v. Allina Health Sys.*, 685 N.W.2d 688, 694 (Minn. App. 2004).

Although respondents challenged Crosby's expert affidavits pursuant to Minn. Stat. § 145.682, respondents never have argued that the expert evidence should be deemed inadmissible pursuant to rule 702. If Crosby's expert evidence were challenged, it is likely that the first requirement would be deemed satisfied because it appears from the current record that Dr. Wangsness used an accepted methodology to stage Hall's cancer. In addition, courts in other states have admitted expert evidence based on cancer staging models. *See, e.g.*, *Cudone v. Gehret*, 828 F. Supp. 267, 270-72 (D. Del. 1993) (breast cancer); *Boody v. United States*, 706 F. Supp. 1458, 1460-61 (D. Kan. 1989) (lung

cancer tumor proven to have been T1N0M0 at time of defendant's negligence); *Glicklich v. Spievack*, 452 N.E.2d 287, 291-92 (Mass. App. Ct. 1983) (breast cancer); *Columbia Rio Grande Regional Healthcare v. Hawley*, 188 S.W.3d 838, 844-45 (Tex. App. 2006) (colon cancer). Whether Dr. Wangsness properly applied the TNM staging model and Dr. Mountain's research, which respondents have questioned repeatedly and vigorously, is relevant to *Goeb*'s second requirement for admissibility. We express no view as to whether Crosby's expert evidence is admissible or inadmissible because that issue was not raised in the district court and, accordingly, was not argued to this court. Rather, we assume that the evidence is admissible and consider only whether, after being admitted, the evidence would be sufficient to permit a lay juror to conclude that Crosby has proved causation. We conclude that the evidence easily satisfies that standard. Dr. Wangsness concluded with precision that, but for respondents' alleged negligence, Hall's probability of survival in July 2004 would have been 67%. That evidence would support the conclusion that "it is more probable than not" that Hall's death "was a result of" respondents' alleged negligence. *See Leubner*, 493 N.W.2d at 121.

In sum, we conclude that Crosby's expert evidence of causation is sufficient to create a genuine issue of material fact regarding causation. Therefore, the district court erred by granting summary judgment to respondents.

Reversed and remanded; motion granted.