STATE OF MINNESOTA
IN COURT OF APPEALS
A11-1423

Krishnaveni Karedla, et al.,
Appellants,

vs.

Obstetrics & Gynecology Associates, P. A.,
d/b/a Associates in Women's Health, et al.,
Respondents,

Allina Health System,
d/b/a Abbott Northwestern Hospital,
Defendant.

Filed June 11, 2012
Reversed and remanded
Collins, Judge[*]

Hennepin County District Court
File No. 27-CV-10-19754

Wilbur W. Fluegel, Fluegel Law Office, Minneapolis, Minnesota; and

Reed K. Mackenzie, John M. Dornik, Mackenzie & Dornik, P.A., Minneapolis, Minnesota (for appellants)

William M. Hart, Cecilie M. Loidolt, Damon L. Highly, Meagher & Geer, P.L.L.P., Minneapolis, Minnesota (for respondents)

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

Considered and decided by Wright, Presiding Judge; Hudson, Judge; and Collins, Judge.

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

COLLINS, Judge

Appellants contend that in dismissing their medical-malpractice action for failing to comply with the requirements for affidavits of expert identification in Minn. Stat. § 145.682 (2010), the district court: (1) applied an incorrect standard of proof to assess their affidavits; (2) erroneously decided the standard of care by impermissibly relying on rebuttal materials; and (3) incorrectly held that the submitted affidavits did not sufficiently show causation. We agree and reverse.

FACTS

Appellant Krishnaveni Karedla became pregnant with her second child in 2006. Karedla visited Associates in Women's Health (AWH) on July 20, 2006, and it was noted that she had elevated blood pressure and protein levels in her urine, indicating preeclampsia.[1] Karedla was sent home with orders for bed rest, though she reported that she attended a barbeque over the weekend before returning to AWH on July 24 with similar complaints. At that visit, Karedla was referred to a clinic for diagnostic tests, and she was subsequently admitted to Abbott Northwestern Hospital. On July 25 and 26, Karedla was monitored in the hospital, including periodic blood-pressure tests. On July

[1] Preeclampsia is a condition that precedes or indicates a likelihood for eclampsia, which "is defined as the presence of new-onset grand mal seizures in a woman with preeclampsia," and engenders additional risk of hemorrhagic stroke. Preeclampsia symptoms include elevated blood pressure and elevated proteinuria, or protein in urine.

27, at 2:10 p.m., Karedla became dizzy, and her blood pressure was recorded as 204/99. Karedla complained of a headache, but she was lethargic and it was "hard to assess her discomfort." Dr. Susan Dahlin was summoned to the hospital to perform a cesarean section to deliver Karedla's baby. Dr. Dahlin arrived at 3:38 p.m. and found Karedla unable to move her right arm or leg. Dr. Dahlin ordered the administration of Hydralazine, which is a blood-pressure-reducing or antihypertensive medication.

Karedla's healthy baby boy was born at 5:04 p.m. A CT scan at 6:03 p.m. showed that Karedla had suffered a serious stroke, described by one of her doctors as a "massive left intracerebral hemorrhage . . . and left to right shift." Karedla was taken into surgery; her doctor noted that "[t]he likelihood of survival is regrettably small." Karedla did survive, but is left with cognitive deficits and physical impairments.

Appellants commenced this medical-malpractice action based on the failure to properly treat Karedla's preeclamptic symptoms prior to her stroke. In addition to the affidavit of expert review filed with the complaint, appellants disclosed affidavits during discovery identifying Dr. Baha Sibai and Dr. Adrian J. Goldszmidt as medical experts that could testify in support of appellants' theory of causation. These affidavits state that Karedla's medical condition indicated the presence of severe preeclampsia because she had systolic blood pressures over 160 mm Hg on two occasions at least six hours apart. According to appellants' medical experts, the standard of care for severe preeclampsia requires the administration of an antihypertensive medication to reduce systolic blood pressure to below 160 mm Hg. These medical experts opine that, because this blood pressure regulation was not done as the standard of care required, Karedla's elevated

blood pressures exerted untenable pressure on the blood vessels in her brain and caused her stroke.

Respondents moved for dismissal of the action on the ground that the affidavits failed to sufficiently show causation. Appellants responded with supplemental affidavits from both doctors to bolster the chain of causation. After a hearing, the district court issued an order granting the respondents' motion to dismiss. Respondents moved for an amended order reflecting the district court's consideration of the supplemental affidavits. The district court issued an amended order on July 14, 2011. This appeal followed.

D E C I S I O N

Appellants challenge the district court's dismissal of their medical-malpractice action for failure to comply with Minn. Stat. § 145.682. When expert testimony is required to establish negligence, a plaintiff in a medical-malpractice case must submit two affidavits. Minn. Stat. § 145.682, subd. 2. First, the plaintiff must serve the summons and complaint with an attorney affidavit stating that the plaintiff's attorney reviewed the facts of the case with "an expert whose qualifications provide a reasonable expectation that the expert's opinions could be admissible at trial." *Id.*, subds. 2(1), 3(a). This affidavit was duly served and is not at issue in this appeal.

The second affidavit must be served within 180 days after commencement of the action and must identify, and be signed by, each expert witness that the plaintiff intends to present at the trial. *Id.*, subds. 2(2), 4(a). This affidavit must contain the substance of the facts and opinions to which the expert is expected to testify and summarize the grounds for those opinions. *Id.*, subd. 4(a). The affidavits and supporting grounds must

show a prima facie case in order for the action to proceed. To establish a prima facie case of medical malpractice, a plaintiff must submit evidence sufficient to demonstrate: (1) the standard of care; (2) the defendant departed from the standard of care; (3) direct causation between the defendant's departure and the plaintiff's injury; and (4) damages. *Tousignant v. St. Louis Cnty.*, 615 N.W.2d 53, 59 (Minn. 2000). If the plaintiff fails to satisfy any such affidavit requirement, the malpractice action must be dismissed with prejudice. Minn. Stat. § 145.682, subd. 6(c). We review the district court's dismissal of a medical-malpractice action based on the insufficiency of an expert affidavit for abuse of discretion. *Anderson v. Rengachary*, 608 N.W.2d 843, 846 (Minn. 2000).

I. Did the district court apply the correct standard of proof?

Appellants argue that the district court applied the incorrect standard of proof in reviewing the affidavits of expert identification because the district court stated that appellants "fail to cite to any medical proof that such treatment would have undoubtedly prevented Ms. Karedla's stroke." To establish a prima facie case of causation, a plaintiff must submit evidence sufficient to demonstrate that it is more probable that the plaintiff's injury "resulted from some negligence for which defendant was responsible than from something for which he was not responsible." *Plutshack v. Univ. of Minn. Hosp.*, 316 N.W.2d 1, 7 (Minn. 1982) (quotation omitted); *see also Leubner v. Sterner*, 493 N.W.2d 119, 121 (Minn. 1992) ("In order to establish a prima facie case of medical malpractice in this state, a plaintiff must prove, among other things, that it is more probable than not that his or her injury was a result of the defendant health care provider's negligence.").

Minnesota courts have never held that plaintiffs must prove their allegations to an absolute lack of doubt.

Appellants argue that the "undoubtedly" statement indicates that the district court applied the wrong standard of proof. Respondents argue that the district court was not indicating the standard it was applying, but that using "undoubtedly" was "nothing more than an isolated, albeit unfortunate, word choice." But the "undoubtedly" statement provides the only indication of the standard of proof the district court applied. Case law represented above informs that "more likely than not" is the correct standard of proof. To the extent that the district court applied an "undoubtedly" standard to the appellants' allegations, the district court erred.

At this stage, the only evidence to be assessed is the appellants' expert-identification affidavits, which are meant to indicate how medical errors led to the damages complained of. Because it is unclear whether the district court applied the correct standard of proof, it is unclear whether the district court abused its discretion on this point. Therefore, we review the affidavits to determine whether they satisfy the correct more-likely-than-not standard for proving a medical-malpractice claim.

II. Did the district court err in determining the standard of care?

Appellants argue that the district court erroneously determined that the standard of care did not require the treatment indicated by appellants' experts. They argue that in deciding the standard of care, the district court erred by considering rebuttal evidence submitted by respondents. Appellants point to the district court's stated conclusion that

"ACOG Bulletin Number 33[2] is the current recommended standard of care." Respondents argue that the standard of care was not the basis of the district court's decision, that appellants' experts opened the door for the ACOG Bulletin by citing to an article that cited the bulletin, and that the district court did not err in determining this standard of care because the ACOG Bulletin is the standard of care.

Appellants submitted a total of four affidavits from two medical experts. These affidavits indicate that "[p]reeclampsia is severe when . . . the following are present: systolic blood pressure of 160 mm Hg or higher or diastolic pressure of 110 mm Hg or above on 2 occasions at least 6 hours apart while the patient is on bed rest," among other various factors. According to the affidavits, the standard of practice indicates that "[e]xpectant management can be employed in the clinical setting of . . . severe preeclampsia." However, "[i]f expectant management is implemented in a patient with severe preeclampsia the accepted standard of practice requires . . . use of antihypertensives to keep the diastolic between 90 and 105 mm Hg and the systolic below 160 mm Hg." Dr. Sibai noted that this standard of care is supported by a 2005 article by Dr. James Martin (Martin article).

Respondents submitted a copy of the ACOG Bulletin and argued that this practice bulletin indicates that antihypertensives were not required unless the diastolic pressures reached 105 to 110 mm Hg. Despite that, respondents also stated repeatedly at the motion hearing, and in their appellate brief, that they were not challenging the standard of

[2] American College of Obstetricians and Gynecologists Practice Bulletin, January 2002 (ACOG Bulletin).

care based on systolic pressure. Rather, respondents argue that they only argued the motion challenging causation, and that the district court decided the motion to dismiss solely on that issue. Appellants served supplemental affidavits from their medical experts that addressed the issue of causation, and which disputed that the ACOG Bulletin's standard of care based on diastolic pressure controlled. Appellants also disclosed a number of published articles supporting the standard of care based on systolic pressure, which Dr. Sibai noted did "not negate the information in the [ACOG] Bulletin; [but] refine[d] it."

The district court made a finding that the ACOG Bulletin "recommends antihypertensive therapy be used for treatment of pregnancy induced hypertension when diastolic blood pressures reach 105-110 mm Hg or higher." The district court concluded as a matter of law that the ACOG Bulletin "is the current recommended standard of care." The court's memorandum of law reiterated that the ACOG Bulletin standard controlled, and stated that it "cannot allow the jury to speculate on what the appropriate standard of care was."

The prima facie case required at this stage must be supported by "evidence which suffices to establish the fact unless rebutted, or until overcome, by other evidence." *Tousignant*, 615 N.W.2d at 59 (emphasis and quotations omitted). When determining whether the appellants met their prima facie burden, a district court should not consider rebuttal evidence. *Id.* at 60 (stating that the district court's analysis "related to the [defendants'] *rebuttal* of [plaintiff's] case, not whether [plaintiff] established a prima facie case"); *Demgen v. Fairview Hosp.*, 621 N.W.2d 259, 267 (Minn. App. 2001)

(noting that "conflicting evidence is not considered in determining whether a plaintiff has established a prima facie case"), *review denied* (Minn. Apr. 17, 2001). A district court that does consider rebuttal evidence has erred. *See Demgen*, 621 N.W.2d at 267 ("[T]he district court erred in relying on a defendant's rebuttal expert affidavit in balancing and weighing . . . [plaintiff's] expert affidavit to see if it met the statutory requirements of Minn. Stat. § 145.682, subd. 4(a).").

Throughout its order and memorandum, the district court shows that it considered the ACOG Bulletin's standard based on diastolic pressure to be the applicable standard of care. But it appears that the ACOG Bulletin was before the district court having been submitted by respondents for the purpose of rebutting appellants' asserted standard of care based on systolic pressure. Respondents had no other reason to offer it. Respondents argue that appellants "opened the door" for the ACOG Bulletin because Dr. Sibai cited to the Martin article in which the ACOG Bulletin is cited. But arguing that Dr. Sibai's citation to the Martin article opened the door for the ACOG Bulletin admits that the ACOG Bulletin was, indeed, offered as rebuttal evidence. Because rebuttal evidence is not properly considered at this stage, we conclude that the district court erred by considering the ACOG Bulletin in determining the applicable standard of care.

Respondents argue that, rather than relying on the ACOG Bulletin directly, the district court could adopt the standard of care based on diastolic pressure because the documentation disclosed with appellants' expert affidavits cites to the ACOG Bulletin. Respondents argue that the Martin article suggests using the systolic pressure as an indicator for the use of antihypertensives but does not require it. But again, this would

mean the district court would go beyond determining whether appellants made a prima facie showing. Appellants' medical experts, who are the only medical experts to have offered an opinion, both indicate that the standard of care is clear; they endorse the standard of care based on systolic pressure, and include an article written by Dr. Sibai, which indicates that the standard of care based on systolic pressure is the applicable best practice. Even if the Martin article indicated that a shift should occur from the still-controlling 2002 ACOG Bulletin, there was other significant evidence indicating that the standard of care in 2006 was predicated on the systolic blood pressure. At this stage of the case, the district court is not in a position to determine what standard applied to the actions of medical professionals presented with these circumstances.

III. Did the affidavits sufficiently outline causation?

Appellants argue that the district court erred in deciding that they were asserting an "earlier is better" theory of causation and in deciding that the affidavits did not set forth a sufficient outline of causation.

A. Is the appellants' theory of causation an "earlier is better" theory?

Respondents argue, and the district court concluded, that this case presents an impermissible "earlier is better" theory of causation. *See Leubner*, 493 N.W.2d at 122 (holding delay in diagnosis to be an insufficient theory of causation); *Maudsley v. Pederson*, 676 N.W.2d 8, 14 (Minn. App. 2004) (same). Appellants argue that this conclusion misconstrues the facts of the case and their theory of causation. Rather than an "earlier is better" theory, appellants argue that the standard of care dictated that treatment was warranted immediately upon Karedla's hospital admittance, and at each

spike in systolic blood pressure above 160 mm Hg. While it is implicit in that argument that immediate treatment is better than delayed treatment, this is not a simple time-based argument.

According to appellants' theory of causation, the catastrophic result of the failure to regulate Karedla's blood pressure could have happened at any time. Under this theory, treatment to reduce blood pressure would have nearly eliminated the risk of that catastrophic result, so while it would be better to provide that treatment immediately upon its indication, the treatment would still be effective at any time before that catastrophic result occurred. A true "earlier is better" theory involves a condition that is progressively worsening over time, making the effects of that condition both more damaging and more difficult to treat. Simply because the failure to act was not immediately catastrophic does not mean that action should not have been taken after each instance of elevated blood pressure. Instead, each subsequent spike in systolic pressure was a renewed call to action. We conclude that this is not an "earlier is better" case.[3]

B. Did appellants' affidavits sufficiently outline causation?

At this stage, a plaintiff must identify the facts and expert opinions that will support a prima facie case of negligence against the defendants. Essentially, this is so that the district court can determine if the case is frivolous and should be dismissed. *Sorenson v. St. Paul Ramsey Med. Ctr.*, 457 N.W.2d 188, 191 (Minn. 1990). In order to

[3] Further illustrating this point is the contrast between this theory of causation, and Dr. Goldszmidt's statement in his first affidavit regarding post-stroke treatment that "[e]arly treatment can limit the size of the hemorrhage [and] the extent of the damage, and improve [the] clinical outcome."

make a prima facie case, a plaintiff must "make an initial showing of all of the elements of a medical malpractice claim" such that it would "prevail[] in the absence of evidence invalidating it." *Tousignant*, 615 N.W.2d at 59 (quotations omitted). The expert affidavit must include "specific details" about "the applicable standard of care, the acts or omissions that plaintiffs allege violated the standard of care and an outline of the chain of causation that allegedly resulted in damage to them." *Sorenson*, 457 N.W.2d at 193. A plaintiff must show that the "defendant's action or inaction was a direct cause of the injury[;][a] mere possibility of causation is not enough to sustain a plaintiff's burden of proof." *McDonough v. Allina Health Sys.*, 685 N.W.2d 688, 697 (Minn. 2004) (citations omitted).

Establishing a prima facie showing of causation may be accomplished by "provid[ing] an outline of the chain of causation between the alleged violation of the standard of care and the claimed damages." *Stroud v. Hennepin Cnty. Med. Ctr.*, 556 N.W.2d 552, 556 (Minn. 1996). "The gist of expert opinion evidence as to causation is that it explains to the jury . . . 'how' and . . . 'why' the malpractice caused the injury." *Teffeteller v. Univ. of Minn.*, 645 N.W.2d 420, 429 n.4 (Minn. 2002). The plaintiff must provide more than "broad, conclusory statements as to causation." *Id.* at 428. It is not enough for the plaintiff to state "that the defendants 'failed to properly evaluate' and 'failed to properly diagnose'" because those statements "are empty conclusions which, unless [it is] shown how they follow from the facts, can mask a frivolous claim." *Sorenson*, 457 N.W.2d at 192-93. But as long as a medical expert's opinion is "based on an adequate factual foundation," the expert "is permitted to make legitimate inferences,

which have probative value in determining disputed fact questions." *Blatz v. Allina Health Sys.*, 622 N.W.2d 376, 387 (Minn. App. 2001), *review denied* (Minn. May 16, 2001).

Respondents argue that appellants' affidavits are insufficient as to causation. In particular, respondents claim that "the affidavits needed to provide the *details* supporting that opinion, namely (1) that treatment with antihypertensives would have lowered elevated blood pressure, and (2) that such a decrease in her blood pressure would have prevented the stroke." Appellants point to the expert affidavits addressing both points.

First, Dr. Sibai noted that "[t]he cause of stroke in patients with preeclampsia is thought to be related to loss of cerebral autoregulation." As explained by Dr. Goldszmidt:

> Typically the initial vascular response to mild or moderate increases in blood pressure is vasoconstriction of the arterial or arteriolar vessels. This is the body's healthy attempt to maintain tissue perfusion to the brain at a relatively constant level. As the systemic blood pressure continues to increase, the ability to regulate the blood flow is lost. The high pressure in the arterioles and capillaries forces leakage of fluid through the walls of the capillaries leading to cerebral edema.

In order to prevent the body from encountering pressures that cause it to lose the ability to self-regulate pressure, both doctors indicated that antihypertensives should be administered. Dr. Goldszmidt stated that "[a]nti-hypertensives must be administered to keep the blood pressure under control at safe levels to avoid complications." In his supplemental affidavit, Dr. Sibai stated that "Hydralazine lowers blood pressure by exerting a peripheral vasodilating effect through a direct relaxation of vascular smooth

muscle. Hydralazine, by altering cellular calcium metabolism, interferes with the calcium movements within the vascular smooth muscle that are responsible for initiating or maintaining the contractile state." This effect decreases the arterial blood pressure, which "reduce[s] the risk of a rupture of the vessels."

Respondents also argue that appellants' affidavits were insufficient in showing whether a decrease in blood pressure would have prevented the stroke. Dr. Goldszmidt stated that

> [a]s the vessels relax and dilate, the vessel size increases without increasing the volume of blood circulating through the vessel. This in turn lowers the pressures exerted on the walls of the blood vessel. The lower the pressure on the walls of the blood vessel, the less likely the vessel wall will rupture as a result of high pressure.

Dr. Sibai added that "[t]he decreased pressure inside the blood vessels serves to reduce the risk of a rupture of the vessels." The appellants' affidavits show with ample detail that administration of antihypertensive medication such as Hydralazine would have reduced Karedla's blood pressure, and that the reduction of blood pressure would have lowered the risk of a blood-vessel rupture.

Respondents also argue that "nothing in the expert affidavits establishes that antihypertensives will *inevitably* avoid all strokes." While it is true that the affidavits do not rule out other possible causes for Karedla's stroke, at this stage appellants' burden is only to show that it is more likely that treatment with antihypertensives would have prevented Karedla's stroke than it is that such treatment would not have prevented her stroke. Indeed, appellants' experts acknowledge that there are other causes of strokes,

but after lengthy discussions of the details, both experts opined that reducing Karedla's blood pressure would more likely than not have prevented her stroke.

As to the district court's assessment of the sufficiency of the affidavits on the element of causation, three other important statements were erroneous. First, the district court stated that "[n]either of plaintiff's experts defined what would have been adequate treatment." But Dr. Sibai's supplemental affidavit addressed that issue, stating that a variety of antihypertensives could have been adequate treatment in the correct dose. He adds that "[t]he specific dose required would depend on the specific medication chosen by the obstetrician," but that an adequate treatment of Hydralazine would be "5-10 mg doses [given] intravenously every 15-20 minutes until the desired response is achieved."

Second, the district court misconstrued the affidavits in stating that "[t]he existence of high blood pressure does not automatically result in the conclusion that antihypertensive medication should be administered and failure to do so would constitute malpractice." But the affidavits indicate the opposite; the experts opine that Karedla's elevated levels of blood pressure should have automatically resulted in the administration of anithypertensives, and failure to do so in this situation is malpractice. Appellants' expert affidavits provide the only medical evidence to be considered at this stage.

Finally, respondents argue, and the district court concluded, that appellants' expert affidavits were conclusory or insufficiently detailed. In *Lindberg v. Health Partners, Inc.*, 599 N.W.2d 572, 578 (Minn. 1999), the plaintiff's expert affidavit stated that the doctor was "familiar with the applicable standard of care but fail[ed] to state what it was or how the appellants departed from it," failed to "recite any facts upon which [the

doctor] will rely as a basis for his expert opinion," failed "to outline a chain of causation" and failed "to even identify the medical condition for which Ms. Lindberg allegedly was not given attention." In *Teffeteller*, the plaintiff's expert affidavit treated the cause of the death "summarily" by stating that "the departures from accepted levels of care, as above identified, were a direct cause of Thad Roddy's death." 645 N.W.2d at 429. Here, however, appellants' expert affidavits reflect a considered level of detail that readily distinguishes them from the insufficiently detailed affidavits in other cases. While these affidavits contain conclusions, restating and summarizing the information throughout an affidavit does not render the affidavit merely conclusory. The district court's statement that the affidavits contain "only broad, conclusory statements regarding causation" is in error.

Appellants' theory of causation is that although the failure to administer antihypertensive medication does not inexorably result in a stroke, the administration of that treatment will more likely than not prevent that result. While it remains to be seen whether appellants can prevail on a full presentation and consideration of evidence from both sides, at this stage the viability of appellants' case is to be judged only on the sufficiency of their affidavits of expert identification. We conclude that when assessed by the proper "more likely than not" standard, appellants' expert affidavits are sufficiently detailed to establish a prima facie case.

Reversed and remanded.