COURT OF APPEALS OF VIRGINIA

PUBLISHED

Present: Judges Huff, Raphael and Lorish
Argued at Arlington, Virginia

RICHARD S. PERGOLIZZI, JR., M.D.

v. Record No. 0072-22-4

RAMONA BOWMAN

OPINION BY
JUDGE LISA M. LORISH
DECEMBER 29, 2022

FROM THE CIRCUIT COURT OF ARLINGTON COUNTY
William T. Newman, Jr., Judge

Paul T. Walkinshaw (Christine A. Bondi; Wharton, Levin, Ehrmantraut & Klein, on briefs), for appellant.

E. Kyle McNew (Michael J. Shevlin; MichieHamlett; Shevlin Smith, on brief), for appellee.

This case presents two matters of first impression in Virginia medical malpractice law. First, can a claim that a physician proceeded without informed consent rest on that physician's failure to inform the patient that the physician may have misdiagnosed them, rendering other alternative treatments more appropriate? Second, should a factfinder assessing whether a failure to obtain informed consent was the proximate cause of later injuries ask whether the *particular* patient, or a *reasonable* patient, would have gone forward with the procedure anyway? We conclude that a negligence theory based on a physician's failure to obtain informed consent must be constrained by the diagnosis that physician actually made. As a result, the trial court erred by allowing Bowman to proceed on an informed consent claim based (in part) on Dr. Pergolizzi's failure to inform Bowman about alternative treatments that would have been appropriate had he reached a different diagnosis. We also hold that under Virginia law, a factfinder must determine

whether the plaintiff herself—not an objective "reasonable person"—would have elected alternative treatment after receiving adequate information from the physician.

BACKGROUND[1]

I. Bowman's Surgery

In October 2017, Ramona Bowman experienced a sudden severe headache localized to the left side of her head. She began feeling better the following morning, but her symptoms returned later that day. The next day, she went to her primary care physician, who sent her to get a CT scan. The CT scan revealed a bleed in the back right part of her brain, known as a "subarachnoid hemorrhage" ("SAH"). She was discharged from the hospital three days later with a referral to a neurologist, who then referred her to his partner, Dr. Richard S. Pergolizzi, an interventional neurologist.

Bowman first visited Dr. Pergolizzi on October 31, 2017, at which time he documented that she was not currently experiencing headaches and had been "having right occipital pain associated with nausea (severe)" twice a week on average for the past year. Dr. Pergolizzi testified that he was concerned about the SAH "because having [SAH], the first thing we think about is having a ruptured aneurysm." During this visit, Dr. Pergolizzi recommended a vascular test called a "cerebral angiogram," which he performed on November 7, 2017.

Dr. Pergolizzi determined that the angiogram revealed a left middle cerebral artery aneurysm and that there was no evidence of an alternative non-aneurysmal cause for the SAH. He also believed that the "lobular and irregular shape" of Bowman's aneurysm, coupled with her symptoms, suggested that the aneurysm had ruptured.

[1] In reviewing the evidence presented at trial, we view it "in the light most favorable to the prevailing party, granting it the benefit of any reasonable inferences." *Starr v. Starr*, 70 Va. App. 486, 488 (2019) (quoting *Congdon v. Congdon*, 40 Va. App. 255, 258 (2003)).

Dr. Pergolizzi then met Bowman and her daughter to discuss the angiogram results. He told them that Bowman had "an aneurysm in the front left of her brain that was 2 to 3 millimeters in size that was in the shape of Mickey Mouse ears." According to Bowman and her daughter, he did not communicate any concerns about the aneurysm's irregular shape or state that there was a connection between the aneurysm and the SAH.[2]

Everyone agreed Dr. Pergolizzi did not mention monitoring the aneurysm as a treatment option. He testified that he did not offer monitoring because the aneurysm "was lobular and irregular" and he had "already excluded the majority of other causes of [SAH]," so it "didn't seem safe for [him] to recommend that [Bowman] would sit there and monitor it, which means just going on with [her] life, doing whatever, and hoping it doesn't rupture—or rupture again . . . because it had ruptured."

Instead, Dr. Pergolizzi recommended that the aneurysm be treated through either an open craniotomy to clip the aneurysm or a less invasive coil embolization procedure.[3] Bowman ultimately opted for and scheduled the coil embolization procedure for the next week. But before the scheduled date, Bowman's headaches returned and worsened, and came with nausea and vomiting. On November 9, Bowman's husband called Dr. Pergolizzi, who suggested that Bowman go to the emergency room, fearing that the aneurysm was bleeding or growing. Bowman went to the emergency room, where she underwent another CT scan. That scan did not reveal any evidence of bleeding or a new hemorrhage. Still, Dr. Pergolizzi elected to move

[2] Dr. Pergolizzi testified: "I told [Bowman] . . . what I found and what my opinion was as to what the etiology of her hemorrhage was . . . ."

[3] Coiling embolization blocks blood flow into an aneurysm. The surgeon inserts a catheter up through a groin artery to the affected brain artery. The surgeon then guides small, thin metal coils into the artery that block the blood flow. *See Endovascular Coiling*, Johns Hopkins Med., https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/endovascular-coiling (last visited Dec. 28, 2022).

forward with the coil embolization procedure. Bowman signed a form consenting to the surgery the morning of the surgery. Again, Dr. Pergolizzi did not mention monitoring as a treatment option before proceeding with surgery.

Dr. Pergolizzi performed the coil embolization procedure. He inserted one coil without issue. After he inserted the second coil, Bowman suffered a hemorrhagic stroke, leaving her permanently impaired.

II. Bowman's Trial

Bowman sued Dr. Pergolizzi under three theories of liability: (1) Dr. Pergolizzi negligently misdiagnosed her condition when he concluded that her aneurysm had ruptured previously; (2) Dr. Pergolizzi performed the surgery negligently because he tried to place a second coil in the aneurysm; and (3) Dr. Pergolizzi failed to fully inform Bowman of the risks associated with the coil surgery or provide information about less risky nonsurgical treatment options, such as monitoring. She put forth two experts, Dr. Gaughen and Dr. Fredieu. Their testimony and Bowman's own testimony give rise to the errors Dr. Pergolizzi assigns on appeal.

A. Expert testimony about Bowman's diagnosis

Bowman's experts testified that Dr. Pergolizzi was wrong to conclude that Bowman had a ruptured aneurysm and that this was the cause of her SAH. Dr. Gaughen testified that he could "say with certainty that the [SAH] was not caused by the left middle cerebral artery aneurysm" because "brain aneurysms do not cause that pattern of bleeding." He cited medical literature supporting his position and concluded that "not a single reported case in the history of the literature" involved an aneurysm like Bowman's (per the November 7 angiogram) rupturing to cause a hemorrhage like Bowman's (per the October CT scan). Dr. Fredieu agreed that Bowman's aneurysm did not cause the initial SAH. Bowman's treating neurosurgeon, Dr. Chandela, also documented and testified that he had formed the impression to a reasonable

degree of medical probability that Bowman had an *unruptured* aneurysm before Dr. Pergolizzi performed the coiling procedure.

Both experts testified to possible alternative causes for Bowman's SAH. Dr. Fredieu testified that "there are a multitude of other sources that can cause [SAH] that are not caused by intercranial aneurysms." He suggested that the specific cause of the bleeding pattern on the October CT scan could have been vasculitis (inflammation of the blood vessels) or posterior reversible encephalopathy syndrome (PRES). Dr. Gaughen also suggested vasculitis, as well as reversible cerebral vasoconstriction syndrome (RCVS), cerebral amyloid angiopathy, and several other possible causes. He also read from medical literature identifying RCVS and cerebral amyloid angiopathy as the most common causes of non-aneurysmal SAH. But neither expert definitively identified an alternative diagnosis. On direct examination, Dr. Gaughen said, "I do not know for sure what the cause of [the SAH] was." Dr. Fredieu testified on cross-examination that Bowman's SAH more likely than not was not a spontaneous bleed and estimated the chances that vasculitis caused the SAH at less than 25%. Both experts noted that they could not make a definitive alternative diagnosis in part because many images from the November 7 angiogram were not preserved and thus were unavailable for review. Dr. Pergolizzi objected repeatedly to Bowman's experts' testimony about alternative causes for Bowman's SAH "because her experts could not state its cause to a reasonable degree of medical probability." He reiterated the argument in written and oral motions at trial before the seating of the jury, during a motion to strike, and during a motion for new trial.

B. Expert testimony about the informed consent standard

Each of Bowman's experts also testified about the appropriate standard of care for informed consent. Dr. Fredieu said that to give full informed consent on a coil embolization procedure, "[T]he first thing you have to talk about is the possibility of doing nothing." Thus,

Dr. Fredieu opined that Dr. Pergolizzi violated the standard of care by not suggesting the possibility of "just monitoring the aneurysm and following it with either noninvasive imaging or with cerebral angiography," particularly given the low risk of rupture in aneurysms as small as Bowman's. He testified that the physician should also "talk about the risks and benefits" of the coil embolization procedure and that Dr. Pergolizzi had understated the risks of a rupture based on the aneurysm's shape, size, and location. Dr. Fredieu further suggested that, based on Bowman's age and the location of her aneurysm, Dr. Pergolizzi could have recommended that Bowman seek an opinion from a neurosurgeon (again, Dr. Pergolizzi is an interventional neurologist). But on cross-examination, Dr. Fredieu agreed that if Bowman's aneurysm had in fact previously ruptured, it would have been appropriate for Dr. Pergolizzi to recommend coiling.

Dr. Gaughen also testified about informed consent. He opined, "I think the standard of care would have necessitated that Dr. Pergolizzi express to the patient that this was an *unruptured* aneurysm and that treatment options would include both . . . endovascular surgical treatments as well as conservative management in the form of noninvasive surveillance." (Emphasis added). He then stated, "I do not believe that an informed decision was able to be made, given the fact that there were no discussions regarding nonsurgical or interventional management of her small *unruptured* aneurysm." (Emphasis added).

Dr. Gaughen added that the standard of care required Dr. Pergolizzi to communicate to Bowman the risk of her small "unruptured" aneurysm rupturing in the future. Dr. Pergolizzi's counsel contemporaneously objected to this last statement, asserting that Dr. Gaughen impermissibly based the informed consent standard on his belief that the aneurysm was unruptured. Ultimately, Dr. Gaughen clarified that his only issue with the informed consent process was that Dr. Pergolizzi presumed Bowman's aneurysm had ruptured and thus did not

suggest alternatives that would be appropriate for an unruptured aneurysm—but with the caveat that he could not fully assess Dr. Pergolizzi's informed consent process with Bowman because it had not been fully documented. Dr. Gaughen, like Dr. Fredieu, conceded on cross-examination that if Bowman's aneurysm had in fact previously ruptured, it would have been appropriate for Dr. Pergolizzi to have recommended a prompt coiling treatment.

C. Bowman's testimony about informed consent

Bowman testified that if Dr. Pergolizzi told her at any time before her November 10 surgery that monitoring her aneurysm without treatment was an alternative, she would not have chosen to have surgery. She added that she would not have chosen the coiling procedure if Dr. Pergolizzi had informed her that an aneurysm like hers had a low risk of rupturing if untreated and that the risk of dying from the procedure was greater than the risk of rupture.

On the informed consent claim, the jury was given "Instruction R," which used verbatim the text of Virginia's model jury instruction on claims for lack of informed consent. *See* Virginia Model Jury Instructions—Civil, Instruction No. 35.080, at 35-33 (2021–2022 repl. ed.) (styled "Treatment Without Informed Consent"). Both "Instruction R" and Civil Model Instruction 35.080 read:

> A doctor has a duty to obtain his patient's informed consent before he treats him. Informed consent means the consent of a patient after a doctor has given the patient all information about the treatment and its risks that would be given to a patient by a reasonably prudent practitioner in the doctor's field of practice or specialty. A doctor is not required, however, to tell a patient what he already knows or what any reasonably intelligent person would know.
>
> If a doctor fails to perform this duty, then he is negligent and is liable for any injury proximately resulting from the doctor's treatment if you believe from the evidence that the patient would have refused the treatment if the doctor had disclosed the information.

D. Jury verdict and appeal

The jury returned a general verdict for Bowman, awarding her over $3,000,000 in damages. The trial court reduced the judgment to the statutory medical malpractice cap and entered final judgment in Bowman's favor. Dr. Pergolizzi timely appealed to this Court to reverse the trial court's findings, vacate the jury verdict, and remand for new trial.

ANALYSIS

Virginia recognizes claims for lack of informed consent based on a negligence theory. *See Mayr v. Osborne*, 293 Va. 74, 85 (2017) ("Whether a physician failed to disclose certain risks and, therefore, whether the patient's consent is truly 'informed' is a matter that sounds in negligence."). Thus:

> To succeed on an informed consent claim, the plaintiff must establish that the physician breached the standard of care by failing to disclose the material risks associated with the treatment or procedure, or the existence of alternatives if there are any, thereby precluding the plaintiff from making an informed decision about whether to undertake a particular procedure or course of treatment.

Allison v. Brown, 293 Va. 617, 628-29 (2017). Virginia courts measure that standard of care by the "degree of skill and diligence exercised by a reasonably prudent practitioner in the same field of practice or specialty in Virginia." *Tashman v. Gibbs*, 263 Va. 65, 73 (2002). Whether the defendant physician's lack of disclosure "deviat[es] from the applicable standard of care must generally be established by expert testimony." *Id.* at 74. Then, "once a plaintiff has met the burden of establishing the standard of care and a deviation from that standard, she may establish by lay testimony that her physician did not disclose certain information regarding risks, and that she had no knowledge of those risks." *Id.* And as in any negligence case, the plaintiff "must prove not only that the physician was negligent but also 'that the negligent act was a proximate cause of her injury.'" *Allison*, 293 Va. at 629 (quoting *Tashman*, 263 Va. at 76). Specifically, the plaintiff must "prove that she would not have agreed to the treatment or procedure had the

physician made a proper disclosure of the risks and alternatives associated with the treatment or procedure." *Id.*

Dr. Pergolizzi raises four issues in this appeal.[4] He first argues that the trial court erred when it allowed Bowman to proceed on a lack of informed consent theory based on Dr. Pergolizzi's failure to inform Bowman that he may have misdiagnosed her and, as such, failed to offer treatment options that would only have made sense for the possible alternative diagnosis he did not make. He then argues that the trial court erred by giving an informed consent jury instruction directing the jury to determine whether Bowman herself—rather than a hypothetical reasonable person—would have consented to the coil embolization procedure if adequately informed. By extension, he argues that the trial court erroneously admitted Bowman's testimony that she would not have consented to the procedure if adequately informed. Finally, Dr. Pergolizzi argues that the trial court abused its discretion when it admitted Bowman's experts' testimony that her SAH resulted from a non-aneurysmal cause because the experts could not identify a specific non-aneurysmal cause to a reasonable degree of medical probability.

I. The trial court erred by allowing Bowman to base her informed consent theory in part on Dr. Pergolizzi's alleged misdiagnosis.

Dr. Pergolizzi's first assignment of error presents a question of law. While the decision whether to admit or exclude expert testimony is usually left to the trial court's discretion, "[a] trial court . . . 'by definition abuses its discretion when it makes an error of law.'" *Robinson v. Commonwealth*, 68 Va. App. 602, 606 (2018) (quoting *Dean v. Commonwealth*, 61 Va. App. 209, 213 (2012)). Thus, "evidentiary issues presenting a 'question of law' are 'reviewed de novo

[4] Bowman initially assigned error to the trial court's decision to grant Dr. Pergolizzi's motion to reduce the verdict to the medical malpractice cap but did not brief this error, so we consider it forfeited. *See* Rule 5A:20(c).

by this Court.'" *Abney v. Commonwealth*, 51 Va. App. 337, 345 (2008) (quoting *Michels v. Commonwealth*, 47 Va. App. 461, 465 (2006)). But we must first address Bowman's argument that Dr. Pergolizzi forfeited this first assignment of error by failing to contemporaneously object during Bowman's experts' testimony.

A. Dr. Pergolizzi preserved this assignment of error.

Under our contemporaneous objection rule, "No ruling of the trial court . . . will be considered as a basis for reversal unless an objection was stated with reasonable certainty at the time of the ruling, except for good cause shown or to enable this Court to attain the ends of justice." Rule 5A:18. Code § 8.01-384(A) further provides that "[n]o party, after having made an objection or motion known to the court, shall be required to make such objection or motion again in order to preserve his right to appeal." Taking Rule 5A:18 and Code § 8.01-384(A) together, to preserve an argument on appeal the appellant must have contemporaneously objected with reasonable certainty but need not have continually made the same objection repeatedly throughout the trial court proceedings.

Dr. Pergolizzi filed a pretrial motion *in limine* to preclude any expert testimony about his alleged failure to inform Bowman that her aneurysm may not have caused her SAH. At a pretrial hearing on the motion, Dr. Pergolizzi's counsel argued, as a matter of law, that Bowman could not base her informed consent claim on a theory that he had the duty to inform her that he may have misdiagnosed her and had to offer alternatives appropriate to other diagnoses he did not make:

> [P]art of Plaintiff's informed consent claim is that Dr. Pergolizzi should have informed the plaintiff that her aneurysm did not previously rupture. So, in other words, Plaintiff attempts to argue that Dr. Pergolizzi failed to provide informed consent because he didn't tell the plaintiff that his diagnosis was wrong. By doing this, the plaintiff takes one claim, which is a medical misdiagnosis, and tries to convert it into two claims of both negligence in failing to realize that the aneurysm did not previously rupture and

> informed consent . . . . And further, I think that Plaintiff concedes that Dr. Pergolizzi did believe that the aneurysm previously ruptured and given that he was of that belief, I don't think it's proper for them to argue that Dr. Pergolizzi should have then turned around and informed Plaintiff of the risks involved with something he didn't appreciate.

This oral argument and the corresponding written motion directly track Dr. Pergolizzi's first assignment of error. *See, e.g.*, *Bethea v. Commonwealth*, 297 Va. 730, 743 (2019) ("Procedural-default principles require that the argument asserted on appeal be the same as the contemporaneous argument at trial."). Dr. Pergolizzi also moved to strike, arguing he could not "be held liable on an informed consent theory for misdiagnosis," citing both Dr. Gaughen and Dr. Fredieu's testimony that treatment (and not monitoring) would have been appropriate had the aneurysm ruptured. And he renewed that motion to strike after the close of all the evidence. Finally, Dr. Pergolizzi moved for a new trial with the same argument. While Dr. Pergolizzi agreed that the informed consent claim was proper based on other legal theories (such as improperly stating the risk of the coil procedure), he raised whether an informed consent claim could proceed on the basis that he had failed to accurately diagnose Bowman.

Bowman suggests that Dr. Pergolizzi's assignment of error is unclear as to whether he is only raising a legal question about the basis of Bowman's informed consent claim, or also "taking issue with specific questions and answers in expert testimony." And Bowman correctly points out that Dr. Pergolizzi objected some of the times, but not every time, one of Bowman's experts testified that the appropriate standard of care was to advise Ms. Bowman about monitoring procedures that would have been appropriate if the aneurysm had not caused the SAH.[5] If Dr. Pergolizzi were merely challenging the admissibility of discrete pieces of evidence,

[5] Dr. Pergolizzi's counsel objected contemporaneously during trial when Dr. Gaughen opined that the standard of care required Dr. Pergolizzi to communicate to Bowman the risk of

Rule 5A:18 would apply to preclude our review. But he is not, and Dr. Pergolizzi "repeatedly made his objection known to the trial court, pretrial, during trial, and after trial . . . provid[ing] the trial court with multiple opportunities to consider his arguments and . . . the plaintiff ample opportunities to respond to these arguments." *Allison*, 293 Va. at 627 n.4 (citing Code § 8.01-384(A)) (rejecting the plaintiff's argument that the defendant physician had procedurally defaulted under Rule 5A:18). Thus, he preserved this assignment of error.

B. Physicians do not have a duty to disclose the risk that they may have misdiagnosed a patient or to disclose alternative treatments that would be appropriate only for other possible diagnoses.

Virginia's courts have not previously decided whether the standard of care for informed consent requires disclosure of other possible diagnoses and their corresponding alternatives and risks. Whereas some states have a statutory cause of action for informed consent, Virginia recognizes a claim based on a lack of informed consent as a subset of a negligence tort. *See, e.g.*, *Mayr*, 293 Va. at 85.

Whether informed consent proceeds under a statutory or tort theory in a given state has not changed how reviewing courts have resolved this question. Most courts to consider the question have held that the standard of care for informed consent does not extend to disclosures of possible misdiagnosis.[6] These jurisdictions conclude that claims of misdiagnosis should be

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her relatively small "unruptured" aneurysm rupturing in the future—although his counsel did not contemporaneously object to a few similar statements by Dr. Gaughen.

[6] *See, e.g.*, *Hall v. Frankel*, 190 P.3d 852, 865 (Colo. Ct. App. 2008) ("[A] physician does not have a duty to disclose the risk of an error in diagnosis or to disclose the availability of diagnostic and treatment procedures he or she has concluded are not medically indicated."); *Linquito v. Siegel*, 850 A.2d 537, 543 (N.J. Super. Ct. App. Div. 2004) (holding that a physician does not have a duty to inform a patient of a diagnostic test for a condition the physician does not believe exists because the physician improperly diagnosed the patient); *Pratt v. Univ. of Minn. Affiliated Hosps.*, 414 N.W.2d 399, 402 (Minn. 1987) (finding that a physician does not have a duty to explain to the patient that the physician's diagnosis in "cases involving genetic

brought under a traditional negligence theory of medical malpractice rather than an informed consent claim.[7] For a time, the Wisconsin Supreme Court was the only court to reach the opposite conclusion, *see Jandre v. Wis. Injured Patients & Fams. Comp. Fund*, 813 N.W.2d 627, 648-49 (Wis. 2012), but its legislature swiftly overruled that decision. It amended the state's informed consent statute to exclude from the standard of care "[i]nformation about alternate medical modes of treatment for any condition the physician has not included in his or her diagnosis at the time the physician informs the patient." 2013 Wis. Legis. Serv. Act 111 (West); *see also* Wisconsin Legislative Council, Amendment Memo, 2013 Assembly Bill 139 (2013). As many have observed, the majority rule rests on sound logic. *See, e.g.*, Michael Rohde, *Information Overload: How the Wisconsin Supreme Court Expanded the Doctrine of Informed Consent*, 46 J. Marshall L. Rev. 1097, 1111-15 (2013) (arguing that if physicians were "required to disclose a multitude of non-recommended alternative procedures," patients would "likely become confused and request to undergo costly and irrelevant procedures to definitively rule out illnesses despite the physician having already ruled them out"); Krista J. Sterken, Michael B. Van Sicklen & Norman Fost, *Mandatory Informed Consent Disclosures in the Diagnostic Context: Sometimes Less is More*, 17 N.Y.U. J. Leg. & Pub. Pol'y 103, 120-133 (2014)

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diagnosis" may be incorrect); *Russell v. Johnson*, 608 N.W.2d 895, 898-99 (Minn. Ct. App. 2000) (citing *Pratt* in non-genetic context).

[7] *See Frankel*, 190 P.3d at 865 (finding that diagnostic errors "are covered adequately by claims of negligence"); *Backlund v. Univ. of Wash.*, 975 P.2d 950, 956 (Wash. 1999) ("A physician who misdiagnoses the patient's condition, and is therefore unaware of an appropriate category of treatments or treatment alternatives, may properly be subject to a negligence action where such misdiagnosis breaches the standard of care, but may not be subject to an action based on failure to secure informed consent."); *Binur v. Jacobo*, 135 S.W.3d 646, 655 (Tex. 2004) ("if a physician recommends an unnecessary surgery, there may be liability for negligence in making an erroneous diagnosis or prognosis, but there can be no claim for lack of informed consent"); *Linquito*, 850 A.2d at 543 (finding that a negligence or malpractice claim is the appropriate vehicle for a misdiagnosis theory of liability); *Roukounakis v. Messer*, 826 N.E.2d 777, 780-82 (Mass. App. Ct. 2005) (adopting the rule of *Backlund*, *Linquito*, and several other Washington and New Jersey cases).

(concluding from an economic analysis that requiring physicians to disclose information about tests for excluded diagnoses would have "minimal, if any, benefit in most instances").

Dr. Pergolizzi affirmatively diagnosed Bowman with a ruptured aneurysm—he testified at trial that he believed the aneurysm was ruptured and documented his diagnosis of an aneurysmal SAH in Bowman's medical records. Indeed, Bowman's negligent misdiagnosis theory depends on the fact that Dr. Pergolizzi diagnosed her with a ruptured aneurysm.

In circumstances like these, courts have consistently precluded plaintiffs from importing negligent misdiagnosis theories into their informed consent claims. Take an example from Massachusetts. In *Roukounakis v. Messer*, 826 N.E.2d 777 (Mass. App. Ct. 2005), a physician failed to identify the plaintiff's cancerous tumor on a mammogram. *Id.* at 779. The plaintiff brought an informed consent claim for her physician's failure to offer her an ultrasound or biopsy. *Id.* But the plaintiff's expert radiologist testified that if the physician did not reasonably suspect a tumor based on the mammogram, the physician would not have had a duty to suggest additional diagnostic testing. *Id.* at 780. The trial judge refused to charge an informed consent claim. *Id.* The Massachusetts appellate court affirmed, finding that "[t]he crux of the plaintiff's claim was [the physician's] failure properly to diagnose and to recognize the need for further tests," which "gives rise to a claim for negligence but not to a claim on principles of informed consent." *Id.* at 782.

Likewise, the crux of Bowman's informed consent claim is that Dr. Pergolizzi failed to properly diagnose her aneurysm and recognize the need for further tests. Dr. Pergolizzi diagnosed a ruptured aneurysm and did not order further testing to investigate alternative diagnoses. But having diagnosed the ruptured aneurysm, Bowman's experts both agreed that immediate treatment with coiling would be appropriate—just as the *Roukounakis* expert testified that not ordering further testing was appropriate when the physician missed the tumor on the

mammogram. Dr. Gaughen repeatedly testified that the standard of care required Dr. Pergolizzi to "express to the patient that this was an unruptured aneurysm," despite Dr. Pergolizzi having diagnosed a ruptured aneurysm. And Dr. Fredieu said that informed consent would require "the possibility of doing nothing"—which the experts agreed would only be appropriate for an *unruptured* aneurysm. Under the rule set forth in *Roukounakis*, the arguments about misdiagnosis should not have seeped into Bowman's informed consent theory.

We adopt the majority rule that a physician has no duty to inform a patient about the risk of misdiagnosis or about alternatives that would only be appropriate had the physician correctly diagnosed the patient.[8] Negligent misdiagnosis and lack of informed consent are distinct theories of negligence. The trial court erred in allowing Bowman's experts to testify that Dr. Pergolizzi's duty to Bowman included disclosing the possibility that he had misdiagnosed her aneurysm as ruptured and offering alternatives that would only be appropriate for an unruptured aneurysm.

[8] Our holding today is limited to cases in which a physician makes a diagnosis to the exclusion of other possible diagnoses. As a result, we do not consider what rule may be appropriate when it is unclear what the physician's actual diagnosis was. In *Gates v. Jensen*, 595 P.2d 919, 923 (Wash. 1979), the Washington Supreme Court held that a patient has a right to know of "[t]he existence of an abnormal condition in one's body, the presence of a high risk of disease, and the existence of alternative diagnostic procedures to conclusively determine the presence or absence of that disease." In *Gates*, the physician performed an eye pressure test for glaucoma and found no abnormality, but the patient's pressure readings remained high for two years. *Id.* at 921-22. She became functionally blind and was eventually diagnosed with glaucoma. *Id.* The court found that the physician failed to meet the standard of care for informed consent because he could have offered more diagnostic tests to identify glaucoma that were "simple, inexpensive, conclusive and risk free." *Id.* at 924. But while the Washington Supreme Court still recognizes *Gates*, it now frames *Gates* as a narrow exception to its general rule. *See Davies v. MultiCare Health Sys.*, 510 P.3d 346, 354 (Wash. 2022); *Anaya Gomez v. Sauerwein*, 331 P.3d 19, 27 (Wash. 2014) (en banc) ("*Gates* is the exception and not the rule with regard to the overlap between medical negligence and informed consent."). It has narrowly cabined that language to cases in which testing is inconclusive as to the diagnosis and the physician could have offered more testing, not cases in which the physician affirmatively made a diagnosis and ruled out other possible diagnoses. *See Davies*, 510 P.3d at 354-55.

C. The trial court's error in allowing Bowman's theory of informed consent was not harmless.

While the trial court erred, we do not reverse when a trial court's error is harmless. Under Code § 8.01-678:

> When it plainly appears from the record and the evidence given at the trial that the parties have had a fair trial on the merits and substantial justice has been reached, no judgment shall be arrested or reversed . . . [f]or any other defect, imperfection, or omission in the record, or for any error committed on the trial.

The general verdict entered for Bowman obscures whether and how much—if at all—the trial court's error contributed to the jury's finding of liability and its corresponding award. While Bowman argued several different theories of negligence to the jury, the verdict form merely states that "[w]e, the jury, find our verdict in the above captioned case in favor of the Plaintiff, Ramona Bowman." Bowman argues that the general verdict works to her advantage because of her separate claim for negligent misdiagnosis. Bowman encourages us to assume that even if the jury based its finding of liability on the erroneous informed consent theory—that the standard of care required Dr. Pergolizzi to inform Bowman about alternatives and risks he was unaware of because he had misdiagnosed Bowman— this error necessarily presumes that the jury found that Dr. Pergolizzi misdiagnosed Bowman. And because negligent misdiagnosis was another theory of malpractice before the jury, Bowman argues that the evidence and other testimony suggesting that Dr. Pergolizzi misdiagnosed Bowman's condition would be relevant to the negligent misdiagnosis claim and that any error was harmless.

But this theory misses a plausible scenario where the jury's decision could have turned on the trial court's error. The jury may well have believed that Dr. Pergolizzi misdiagnosed Bowman, but that his misdiagnosis was not *negligent*. But based on Bowman's experts' testimony, the jury might have mistakenly believed that Dr. Pergolizzi still had a duty to disclose more information about the possibility that her aneurysm was actually unruptured, as well as

alternative treatments that would only be appropriate for unruptured aneurysms. Our precedent weighs against finding harmless error under such circumstances. In *Hinkley v. Koehler*, 269 Va. 82, 91-92 (2005), the appellee argued that a physician expert's inadmissible testimony was harmless error for two reasons: (1) while the physician was unqualified to testify to the appropriate standard of care for medical malpractice, he was qualified to testify about causation and (2) another qualified expert testified to both the standard of care and causation. Our Supreme Court rejected both arguments and remanded for a new trial. *Id.* at 92. The Court held that the error in allowing the physician to testify on the standard of care was "presumed to be prejudicial unless it plainly appears that it could not have affected the result," particularly because the jury's verdict did not spell out how much relative weight it put on the question of causation versus the question of the standard of care. *Id.* (quoting *Spence v. Miller*, 197 Va. 477, 482 (1955)); *see also Ponirakis v. Choi*, 262 Va. 119, 126 (2001) (finding error in offering contributory negligence instruction was not harmless because the general verdict obscured whether the jury found for the defendant concluding he lacked primary negligence or because of the plaintiff's contributory negligence). Similarly, we cannot be certain how much relative weight the jury put on the theory of negligent misdiagnosis versus the theory of informed consent. Nor can we be certain how much the jury relied on the inadmissible testimony conflating negligent misdiagnosis with informed consent compared to the admissible testimony alleging lack of informed consent without reference to the misdiagnosis.

Given the possibility that the jury's decision turned on the impermissible informed consent theory, we cannot find that it "plainly appears" Dr. Pergolizzi "had a fair trial on the merits," and so the trial court's error was not harmless.

D. Bowman may still bring an informed consent claim on remand.

Bowman correctly points out that her experts, particularly Dr. Fredieu, testified that Dr. Pergolizzi failed to meet his duty to give informed consent for reasons independent of the theory for which we find error. While the jury's general verdict precludes us from finding harmless error, Bowman has presented enough admissible testimony to bring an informed consent claim on remand on grounds unrelated to the negligent misdiagnosis.[9] Indeed, Dr. Pergolizzi clarified at trial that his objections would not "strike Plaintiff's allegation of lack of informed consent entirely." And both parties agreed at oral argument that this Court would need to reach whether Virginia employs an objective, or subjective, causation standard for whatever informed consent claim may go forward on remand.

Because Bowman put forth enough evidence to argue an informed consent claim on remand if she so chooses, we next address the causation standard the trial court should apply.

II. The trial court did not err in offering Instruction R or admitting Bowman's testimony because we apply a subjective standard to determine causation in informed consent claims.

Dr. Pergolizzi argues that the trial court erred by giving an instruction (Instruction R) directing the jury to determine whether Bowman herself would not have consented to the coil embolization procedure if adequately informed (a subjective standard) rather than whether a reasonable person would not have consented under the circumstances (an objective standard). That instruction copied Civil Model Instruction No. 35.080, which reads:

> A doctor has a duty to obtain his patient's informed consent before he treats him. Informed consent means the consent of a patient after a doctor has given the patient all information about the

[9] For example, Dr. Fredieu testified that Dr. Pergolizzi had a duty to fully and accurately explain to Bowman the risks of the coil embolization procedure given her aneurysm's size, shape, and location. He also testified that Dr. Pergolizzi could have recommended Bowman seek another opinion from a neurosurgeon. Furthermore, both Dr. Gaughen and Dr. Fredieu pointed out that because (in their opinions) Dr. Pergolizzi's informed consent process was not fully documented, they could not fully assess Dr. Pergolizzi's informed consent process.

> treatment and its risks that would be given to a patient by a reasonably prudent practitioner in the doctor's field of practice or specialty. A doctor is not required, however, to tell a patient what he already knows or what any reasonably intelligent person would know.
>
> If a doctor fails to perform this duty, then he is negligent and is liable for any injury proximately resulting from the doctor's treatment if you believe from the evidence that the patient would have refused the treatment if the doctor had disclosed the information.

Dr. Pergolizzi also argues that, because an objective causation standard should apply, the trial court erroneously admitted Bowman's testimony that she would have refused the treatment had Dr. Pergolizzi disclosed adequate information.

The purpose of appellate review of jury instructions is "to see that the law has been clearly stated and that the instructions cover all issues which the evidence fairly raises." *Dorman v. State Indus.*, 292 Va. 111, 125 (2016) (quoting *Cain v. Lee*, 290 Va. 129, 134 (2015)). "[W]hether a jury instruction accurately states the relevant law is a question of law that we review *de novo*." *Watson v. Commonwealth*, 298 Va. 197, 207 (2019) (quoting *Payne v. Commonwealth*, 292 Va. 855, 869 (2016)). Likewise, "evidentiary issues presenting a 'question of law' are 'reviewed *de novo* by this Court.'" *Abney v. Commonwealth*, 51 Va. App. 337, 345 (2008) (quoting *Michels*, 47 Va. App. at 465).

A. Dr. Pergolizzi preserved this assignment of error.

Dr. Pergolizzi did not offer an alternative jury instruction on the causation standard for informed consent or request specific modifications to the language of Instruction R, and for this reason Bowman argues that he forfeited any review of this jury instruction on appeal.

We have no bright-line rule that a party forfeits any objection to a jury instruction by not offering an alternative instruction. In a prior case (when no issue of error preservation was raised) our Supreme Court set out the general guidance that *at trial*, "the burden is on the parties

to furnish the trial court with proper and appropriate instructions that address their respective theories of the case." *Honsinger v. Egan*, 266 Va. 269, 275 (2003). When it comes to preserving an argument for our consideration on appeal, however, we look to Rule 5A:18, which requires that an objection be "stated with reasonable certainty at the time of the ruling." This allows the trial court an "opportunity to intelligently address, examine, and resolve issues in the trial court, thus avoiding unnecessary appeals." *Friedman v. Smith*, 68 Va. App. 529, 544 (2018) (quoting *Andrews v. Commonwealth*, 37 Va. App. 479, 493 (2002)). While requesting an alternate jury instruction is a good way to ensure that an objection to a proposed instruction is stated with reasonable certainty, it is not the only way. Clear and repeated objections to the legal error in a proposed instruction are enough to permit appellate review on whether the jury instruction is a fair statement of law. *See Dorman*, 292 Va. at 125 (we review for whether "the law has been clearly stated and that the instructions cover all issues which the evidence fairly raises").[10]

Dr. Pergolizzi clearly and repeatedly objected to Instruction R and its causation standard. Before Bowman testified, Dr. Pergolizzi's counsel sought to "preserve [his] ability to argue that [the model jury instruction] is incorrect" while also seeking a standing objection (which was granted) to any subjective testimony from Bowman about whether she would have consented to the procedure if adequately informed. Dr. Pergolizzi then objected in writing to Bowman's submission of her own jury instruction, stating that it "should be an objective standard." During

[10] Bowman relies on *Peele v. Bright*, 119 Va. 182, 184 (1916), where our Supreme Court rejected the appellant's argument that a jury instruction was incorrect because "[t]he court was not asked for any modification of the instruction and was under no obligation to give in place of it a new and correct one." But this only affirms that a request to modify a proposed instruction may be sufficient. Neither does *Crawford v. Commonwealth*, 35 Va. App. 438 (2001) (en banc), support Bowman's waiver argument. There, we explained that the appellant waived an objection to a jury instruction because he "did not proffer an alternative instruction, did not offer any alternative language, and did not specify his objection." *Id.* at 439. In *Crawford*, however, the appellant conceded that the proposed instruction accurately stated the law, and the appellant failed to clearly object to that instruction.

discussion of jury instructions, Dr. Pergolizzi again orally objected to including any instruction with a subjective standard. The trial court understood the objection, observing that "it's always interesting when the Supreme Court has not made a ruling on [the issue]" and that "I guess we can push that on them and find out what they would say."[11] In his motion to strike, Dr. Pergolizzi raised the issue again, arguing that Bowman had "presented only subjective evidence of whether [she] would have gone through with the procedure" but that it "should be an objective standard, and there [had] been no evidence admitted to assist the jury in determining whether an objectively reasonable person would have gone forward with the procedure." Finally, in his motion for new trial, he argued that the trial court should not have given the model instruction. Dr. Pergolizzi's objections to Instruction R match his argument on appeal that the instruction impermissibly permits subjective evidence of how the plaintiff would have acted had adequate information been disclosed, rather than objective evidence of how a reasonable person would act.

B. The causation element in a claim of lack of informed consent requires proof that the plaintiff would not have consented to the procedure if appropriately informed.

In Virginia, as discussed above, a claim for malpractice based on a lack of informed consent sounds in the tort of negligence. Thus, a plaintiff must prove "not only that the physician was negligent but also 'that the negligent act was a proximate cause of her injury.'" *Allison*, 293 Va. at 629 (quoting *Tashman*, 263 Va. at 76). In an informed consent claim, this

[11] All the same, Bowman argues Dr. Pergolizzi's counsel did not actually object to Instruction R—the verbatim model instruction—but only to Bowman's attempt to modify the model instruction (which the court rejected). Bowman relies on the statements of Dr. Pergolizzi's counsel: "I think we should follow the model instruction," and "I think that the model instruction is completely appropriate." But those statements are taken out of context and state only Dr. Pergolizzi's objections to Bowman's suggested modifications to the instruction. After this discussion, Dr. Pergolizzi's counsel clarified, "Again, I will just renew my objection for the record to the characterization of the informed consent being in the subjective view for the patient as opposed to what we think it should be which is an objective analysis of what a reasonable person would have known under the circumstances."

means the plaintiff must prove that "she would not have agreed to the treatment or procedure had the physician made a proper disclosure of the risks and alternatives associated with the treatment or procedure." *Id.* (citing *Tashman*, 263 Va. at 76). In affirming that a plaintiff must prove that the "negligent act was a proximate cause of her injury," our Supreme Court specifically rejected the alternate theory that an informed consent claim instead nests under the offense of battery. *Id.* (quoting *Tashman*, 263 Va. at 76).

But *how* a plaintiff proves proximate causation in an informed consent claim is a matter of first impression in Virginia. Our Supreme Court recently recognized that it has

> not squarely addressed whether Virginia's law of informed consent includes an objective standard (that is, that a reasonably prudent person in the plaintiff's position would not have consented to treatment when provided with proper disclosures) or a subjective standard (that *this patient* would not have consented in the face of the disclosures required by the standard of care).

Id. at 629 n.5 (noting that the Court need not determine a standard in a case when the plaintiff presented no evidence of lack of informed consent); *see also Martin v. Lahti*, 295 Va. 77, 84 n.3 (2018) (noting that the Court had not yet "affirmatively examined the merits" of the respective approaches).

The two approaches differ in how they consider certain forms of evidence. Under the subjective approach, the plaintiff's testimony about what she would have done speaks directly to the ultimate issue to be decided, and—if believed—is dispositive. But under the objective approach, the plaintiff's testimony only indirectly bears on the causal question. Meanwhile, under the subjective approach, reasonableness may have some bearing on what we might infer the plaintiff would have done. But reasonableness is the very question to be decided under the objective approach.

Even though our Supreme Court has not answered the question, Dr. Pergolizzi rightly points out that Civil Model Instruction No. 35.080 applies a subjective causation standard: a

physician is "liable for any injury proximately resulting from the doctor's treatment if [the jury] believe[s] from the evidence that *the patient* would have refused the treatment if the doctor had disclosed the information." (Emphasis added). We find that the model instruction is right to apply that standard.

Absent legislative intervention, the subjective approach better fits the basic principles of Virginia tort law. While most courts have reached a different conclusion, they have done so either as a matter of statutory interpretation or through weighing the pros and cons of the competing options. Evaluating whether a reasonable person standard is a good idea is a matter of policy better suited to the General Assembly.

Under our existing tort law, the proximate cause element has two components. The plaintiff first must prove cause-in-fact. *See Wells v. Whitaker*, 207 Va. 616, 622 (1966). "The proximate cause of an event is that act or omission which, in natural and continuous sequence, unbroken by an efficient intervening cause, produces the event, and without which that event would not have occurred." *Kellermann v. McDonough*, 278 Va. 478, 493 (2009) (quoting *Beverly Enters.–Va. v. Nichols*, 247 Va. 264, 269 (1994)). "Unbroken by an intervening cause" is key—an "independent intervening act" will "cut off legal causation" even where an actor is the "but for" cause of an injury. *See Dorman*, 292 Va. at 122. And even upon proving cause-in-fact, the plaintiff must further prove a "connection sufficiently close that . . . the courts regard it as fair and just to require the defendant to pay for the wrong done" (sometimes called "causation in law"). Kent Sinclair, *Personal Injury Law in Virginia* § 4.1(B) (2022).

The question at issue here is about that first component of causation. Applied to informed consent, a physician's failure to inform must be a cause-in-fact of the plaintiff's injury. That causal connection exists if the plaintiff shows that, had the appropriate information been

disclosed, she would not have consented to treatment.[12] Thus, the failure to adequately inform cannot be the proximate cause of later injury if the plaintiff would have submitted to the treatment even had a full disclosure been made.

What a "reasonable person" may have done simply does not map onto the cause-in-fact component of the proximate cause framework. It is not an independent intervening act, breaking the causal chain—and a reasonable person standard would do little to assist the trier of fact in determining whether there was, in reality, such an intervening event. Without a legislative choice to supersede the common law tort of negligence, what a *reasonable* person may have done is only evidence that may be relevant to what the *actual* plaintiff would have done.[13]

As one observer has remarked, "[I]f the full disclosure would have led the plaintiff to refuse the operation, both the defendant's breach and its causal role is clearly established, so the [reasonable person requirement in the objective causation] rule does not reflect the causation requirement but imposes some additional and most unusual obstacle." Evelyn M. Tenenbaum, *Revitalizing Informed Consent and Protecting Patient Autonomy: An Appeal to Abandon Objective Causation*, 64 Okla. L. Rev. 697, 718 (2012) (second alteration in original) (quoting Dan B. Dobbs, *The Law of Torts* 657 (5th ed. 1984)). While *Tashman* did not conclusively resolve this issue, a subjective standard tracks that case's conclusion that the plaintiff's evidence on proximate cause was "insufficient as a matter of law" because it did not prove that the

[12] The cause-in-fact component of proximate cause in an informed consent claim also requires the plaintiff to show that she would not have suffered injury if an alternative treatment (or no treatment) had been pursued. Because Dr. Pergolizzi's assignments of error do not relate to this part of cause-in-fact, we do not address it here.

[13] In a number of other jurisdictions, the "reasonable person" is also accounted for in shaping a physician's duty to inform. *See* Laurent B. Frantz, Annotation, *Modern Status of Views as to General Measure of Physician's Duty to Inform Patient of Risks*, 88 A.L.R.3d 1008 (1978 & Supp. 2022) (collecting cases). Virginia adheres to the traditional rule that a physician's duty to inform is measured by expert testimony on what a reasonable physician would disclose. *Bly v. Rhoads*, 216 Va. 645, 650 (1976).

physician's failure to inform her of an alternative procedure "affected *her* decision" to have the procedure. 263 Va. at 76 (emphasis added); *see also Rizzo v. Schiller*, 248 Va. 155, 160 (1994) ("Here, the plaintiffs presented evidence from which the jury might have inferred that had *Ms. Rizzo* been informed of the possible consequences associated with the use of obstetrical forceps, *she* would have continued to assist in the birth process by 'pushing' and that Michael would have been born spontaneously." (emphasis added)).

Supporters of the objective standard worry that a subjective standard "places the physician in jeopardy of the patient's hindsight and bitterness." *Canterbury v. Spence*, 464 F.2d 772, 790-91 (D.C. Cir. 1972). Instead, these courts and legislatures prefer the objective approach, which "circumvents the need to place the fact-finder in a position of deciding whether a speculative and perhaps emotional answer to a purely hypothetical question [whether the patient would have undergone the procedure if given adequate disclosures] shall dictate the outcome of the litigation." *Ashe*, 9 S.W.3d at 123; *see also Arena v. Gingrich*, 748 P.2d 547, 549 (Or. 1988) (observing that the objective test "was invented and is defended for a purely pragmatic rather than logical reason: the apprehension that juries would hold physicians liable to patients for an undesired outcome when a patient testifies after the fact that she would not have consented to the procedure had she been properly informed").

But a subjective standard is far from unworkable. Courts regularly put fact-finders in a position of determining whether a witness's testimony is self-serving. We rely on fact-finders to make judgment calls about credibility even when criminal defendants' liberty is at stake. *See, e.g., Brown v. Commonwealth*, 75 Va. App. 388, 414 (2022) ("In its role of judging witness credibility, the fact finder is entitled to disbelieve the self-serving testimony of the accused and to conclude that the accused is lying to conceal his guilt." (quoting *Marable v. Commonwealth*, 27 Va. App. 505, 509-10 (1998))). Indeed, we have observed that "[t]he law has not reached the

point where it no longer relies on juries to make credibility determinations, based on their own knowledge and experience" and that "[w]hile there is no foolproof way to determine the truth, entrustment of this function to a jury is not a flawed and antiquated premise, but the bedrock upon which the jury system rests." *Payne v. Commonwealth*, 65 Va. App. 194, 211-12 (2015); *see also Fain v. Smith*, 479 So. 2d 1150, 1162 (Ala. 1985) (Jones, J., dissenting) (arguing that "juries are perfectly capable of finding that the evidence does or does not support an inference that the plaintiff would have withheld consent if properly informed"). Informed consent claims do not present a special difficulty to juries compared to any other credibility calls that courts routinely ask them to make. And defense counsel and courts can always instruct the jury that a witness's testimony may be self-serving. *See, e.g.*, Virginia Model Jury Instructions—Civil, Instruction No. 2.020 (2021–2022 repl. ed.) (styled "Credibility of Witnesses") ("You are entitled to use your common sense in judging any testimony. From these things and all the other circumstances of the case, you may determine which witnesses are more believable and weigh their testimony accordingly.").[14]

A subjective standard also adheres to the principles underlying the informed consent doctrine—that "[e]very human being of adult years and sound mind has a right to determine what shall be done with his own body." *Schloendorff v. Soc. of N.Y. Hosp.*, 105 N.E. 92, 93 (N.Y. 1914) (Cardozo, J.). In contrast, an objective standard "severely limits the protection granted an injured patient" because "[t]o the extent the plaintiff, given an adequate disclosure, would have declined the proposed treatment, and a reasonable person in similar circumstances

[14] We likewise reject the argument that a subjective standard would be unjust in cases where the patient has died and is unable to testify. That is no more a problem in this context than in others involving a decedent. For one thing, family members or friends might be called upon to provide admissible evidence reflecting on the patient's views on the question. For another, what a reasonable patient would have done could certainly bear on what the particular patient would have done. *See Aiken v. Clary*, 396 S.W.2d 668, 676 (Mo. 1965) (describing how the patient's views might be discerned even though the patient "does not specifically so testify").

would have consented, a patient's right of self-determination is irrevocably lost." *Scott v. Bradford*, 606 P.2d 554, 559 (Okla. 1979).

For these reasons, we find no error in the trial court's use of Civil Model Instruction No. 35.080.

C. The trial court did not err in admitting Bowman's subjective testimony about whether she would have undergone the procedure if adequately informed.

Having clarified that a subjective standard of proximate causation applies, a plaintiff's testimony about whether she would have undergone a procedure if the physician had satisfied his duty to obtain informed consent is relevant evidence. Bowman testified that if Dr. Pergolizzi told her at any time before performing the coil embolization procedure that monitoring her aneurysm without treatment was an alternative, she would not have agreed to the surgery. She added that she would have declined the coiling procedure if Dr. Pergolizzi had informed her that her aneurysm had a low risk of rupturing if untreated and that the risk of dying from the procedure was greater than the risk of rupture. The trial court did not err in admitting Bowman's testimony and allowing the jury to weigh its credibility.

III. The trial court did not abuse its discretion by admitting Bowman's experts' testimony that Bowman's SAH had a non-aneurysmal cause.[15]

Dr. Pergolizzi argues that the trial court abused its discretion when it admitted Bowman's experts' testimony that her SAH resulted from a non-aneurysmal cause. Unlike the assignments of error above, which relate to Bowman's informed consent theory of liability, this assignment of

[15] Bowman argues that Dr. Pergolizzi is "taking a shot into the flock" instead of "lay[ing] his finger" on this specific alleged error, and thus failed to object with reasonable certainty under Rule 5A:18. But Dr. Pergolizzi objected repeatedly to Bowman's experts' testimony about alternative causes for Bowman's SAH "because her experts could not state its cause to a reasonable degree of medical probability." He also made the argument in written and oral motions at trial before the jury was seated, during his motion to strike, and during his motion for a new trial. These objections consistently made the same argument Dr. Pergolizzi makes on appeal now. This assignment of error has not been forfeited.

error challenges evidence supporting Bowman's negligent misdiagnosis theory of liability. Dr. Pergolizzi seems to concede that Bowman's experts testified to a reasonable degree of medical probability that the aneurysm found during the angiogram did not cause Bowman's SAH. But he contests her experts' further testimony about what alternative conditions Bowman may have had that could have caused her SAH, because her experts admitted that they could not identify a specific non-aneurysmal cause with certainty.

"[T]he admission or exclusion of expert testimony is a matter within the sound discretion of the circuit court," so we "reverse the circuit court's judgment only when the court has abused this discretion." *Lucas v. Riverhill Poultry, Inc.*, 300 Va. 78, 92 (2021). But under the abuse of discretion standard, we still have a duty to ensure the trial court "was not guided by erroneous legal conclusions" in exercising its discretion. *Coffman v. Commonwealth*, 67 Va. App. 163, 167 (2017) (quoting *Porter v. Commonwealth*, 276 Va. 203, 260 (2008)). "Expert testimony is inadmissible if it is speculative or founded on assumptions that have an insufficient factual basis." *John v. Im*, 263 Va. 315, 320 (2002). "A medical opinion based on a 'possibility' is irrelevant, purely speculative and, hence, inadmissible." *Spruill v. Commonwealth*, 221 Va. 475, 479 (1980). To be relevant, the medical expert's testimony "must be brought out of the realm of speculation and into the realm of reasonable probability; the law in this area deals in 'probabilities' and not 'possibilities.'" *Id.*

Dr. Pergolizzi argues that Bowman's experts' admissions that they could not identify an alternative diagnosis with certainty show that their testimony about alternative diagnoses was speculative and not stated to a reasonable degree of medical probability, citing *Lucas*, 300 Va. at 97. In *Lucas*, the plaintiff's estate brought a wrongful death action against the defendant on the theory that the defendant had fallen asleep at the wheel, causing the crash that killed both the plaintiff and the defendant. *Id.* at 83. The plaintiff's medical expert testified that it was his

opinion that, based on the defendant's history of sleep problems, the defendant lost consciousness due to daytime sleepiness induced by sleep apnea and worsened by sedating medications that showed up on a toxicology report. *Id.* at 96. On cross-examination, the expert conceded that to affirmatively diagnose sleep apnea, he would need more information about the decedent defendant's history of taking the sedatives, lifestyle, hydration levels, and other factors. *Id.* at 96-97. The trial court excluded the testimony. *Id.* at 97. Our Supreme Court affirmed, finding that the trial court had not abused its discretion because the expert "conceded that there was information he needed to know, but did not know," which rendered his attempt to prove the cause of the crash "invalid and inadmissible because it was founded on assumptions that were not established." *Id.*

This case is distinguishable from *Lucas*. True, Dr. Gaughen and Dr. Fredieu both "conceded that there was information [they] needed to know, but did not know" to prove an alternative diagnosis with a reasonable degree of medical probability. *Id.* But unlike in *Lucas*, where the plaintiff failed to affirmatively prove the cause of the accident, Bowman's negligent misdiagnosis theory required her to prove only that her SAH was *not* caused by a ruptured aneurysm. Also, the deferential abuse of discretion standard cuts the other way here; in *Lucas*, the court found that *excluding* the evidence was not an abuse of the trial court's discretion, but here we must assess whether *admitting* the evidence was an abuse of discretion.

We conclude that the trial court did not abuse its discretion in admitting Bowman's experts' testimony. The trial court had sufficient grounds to consider the evidence relevant—not to diagnose Bowman's actual condition, but to help lay a foundation for proving that Dr. Pergolizzi negligently misdiagnosed Bowman's aneurysm as the cause of her SAH when other potential causes existed and should have been explored before surgery. And while Dr. Gaughen may have spoken in terms of "possibilities" and not "probabilities" as to what

condition Bowman had, the relevant issue for negligent misdiagnosis was proving the condition she did *not* have, which Dr. Gaughen framed in terms of probabilities. He testified: "I can say *with certainty* that the [SAH] was not caused by the left middle cerebral artery aneurysm" that Dr. Pergolizzi operated on. (Emphasis added). He based his opinion on his "training . . . [,] experience[,] and a very robust body of literature that would tell us that brain aneurysms do not cause [the] pattern of bleeding" on Bowman's CT scan. He used the possibility of alternative explanations only to support the idea that Dr. Pergolizzi should have done more testing before operating. And both experts' testimony finds more support from Bowman's treating neurosurgeon, Dr. Chandela. Dr. Chandela documented in medical records and testified that he had concluded to a reasonable degree of medical probability that Bowman had an unruptured aneurysm—which would not cause SAH—before Dr. Pergolizzi performed the coiling procedure. It was within the trial court's discretion to find that Dr. Gaughen and Dr. Fredieu's testimony was sufficiently grounded in fact to admit as relevant.

CONCLUSION

The trial court did not err in giving the model jury instruction reflecting a subjective proximate cause standard for Bowman's informed consent claim, or in admitting Bowman's own testimony on proximate cause, or in allowing Bowman's experts to testify that her SAH resulted from a non-aneurysmal, but unknown, cause. But because we find that a physician has no duty to inform a patient that the physician may have misdiagnosed the patient or offer treatment options that would only make sense for conditions the doctor has excluded, the trial court erred in admitting Bowman's experts' testimony suggesting such a duty exists. That error was not harmless, so we must reverse and remand for retrial.

Reversed and remanded.