ALBERTS V. SCHULTZ, 1999-NMSC-015, 126 N.M. 807, 975 P.2d 1279

DEE ALBERTS and MILDRED ALBERTS, husband and wife,
Plaintiffs-Appellants,
vs.
RUSSELL C. SCHULTZ, M.D., and GOPAL REDDY, M.D.,
Defendants-Appellees.

Docket No. 24,936

SUPREME COURT OF NEW MEXICO

1999-NMSC-015, 126 N.M. 807, 975 P.2d 1279

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CERTIFICATION FROM THE NEW MEXICO COURT OF APPEALS. Susan M. Conway, District Judge.

As Corrected April 26, 1999. Second Correction April 20, 1999.

COUNSEL

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JUDGES

GENE E. FRANCHINI, Chief Justice. WE CONCUR: JOSEPH F. BACA, Justice, PATRICIO M. SERNA, Justice, PETRA JIMENEZ MAES, Justice (dissenting).

AUTHOR: GENE E. FRANCHINI

OPINION

*{*808}* **OPINION**

FRANCHINI, Chief Justice.

{1} Dee and Mildred Alberts, husband and wife, brought a medical malpractice action for the amputation of Dee's right leg below the knee. The trial court certified the following question for interlocutory appeal: "Should New Mexico recognize a cause of action for the increased risk of harm to a patient as a result of a physician's negligence, and if so, should this doctrine apply to the facts of this case[?]" **Alberts v. Schultz**, No. CV 95-008040, slip op. at 2 (N.M. District. Ct. Feb. 17, 1997). We do not believe this theory of recovery-to which we apply the terms "loss of chance" or "lost chance"-should be deemed, as the trial court implies, a new "cause of action." We conclude, however, that it is appropriate for New Mexico to recognize this claim. Nevertheless, after applying the loss-of-chance theory to the facts of this case, we conclude that the Alberts failed to prove causation.

I. FACTS

{2} Dee had a history of peripheral vascular disease, which is a chronic progressive narrowing of the blood vessels which restricts the flow of blood to a particular area of the body. On July 14, 1992, he went to his primary care physician, Dr. Russell C. Schultz, with symptoms including severe pain in his right foot. He described pain in the absence of any activity or exercise, an affliction known as "rest pain," which is an acknowledged sign of impending gangrene that could lead to the amputation of the affected limb. Dr. Schultz noted that Dee's right foot was a "dusky" color. However, Dr. Schultz did not order an arteriogram, a diagnostic test that assists in evaluating the condition of blood vessels, and he did not conduct a motor sensory examination.

{3} Dee specifically requested a referral to Dr. Gopal Reddy, a vascular surgeon who had previously examined his condition. Dr. Schultz apparently gave Dee the impression that Dr. Reddy was on vacation and that Dee would have to await his return. The Alberts allege, and Dr. Schultz disputes, that he declined *{*809}* to refer Dee to a specialist other than Dr. Reddy, claiming the paperwork would be excessive.

{4} It was not until thirteen days later, on July 27, 1992, that Dee saw Dr. Reddy. Upon seeing the condition of Dee's right leg, Dr. Reddy immediately sent him to the hospital. That same day, following an arteriogram, several procedures were performed unsuccessfully. The following day, bypass surgery was attempted. Dee's leg showed no improvement and on August 1, 1992, his right leg was amputated below the knee.

{5} The Alberts brought a medical malpractice action on September 21, 1995, against Dr. Schultz and Dr. Reddy for negligence resulting in the amputation of Dee's right leg below the knee. They claimed Dr. Schultz did not advise Dee of the true nature of his condition, neglected to perform the appropriate examinations on his leg, and failed to

make a timely referral to a specialist. They further asserted that Dr. Reddy had not properly warned Dee about his condition and had failed to perform the appropriate diagnostic tests and treatments. The Alberts argued that the thirteen-day delay before Dr. Reddy's intervention decreased the probability that the leg could be saved.

{6} The Alberts' case was supported by the testimony of Dr. Max Carlton Hutton, a vascular surgeon. Dr. Hutton, through an affidavit and a deposition, testified that in his opinion Dr. Schultz should have performed motor and sensory exams and should have immediately ordered an arteriogram on Dee when he saw him on July 14, and should not have allowed nearly two weeks to pass before Dee could be seen by a vascular surgeon. Dr. Reddy, according to Dr. Hutton, was negligent in not performing motor and sensory exams, and in not doing a bypass immediately on July 27. Dr. Hutton noted that in cases such as Dee's, even the passage of six hours can make the difference between success and failure.

{7} Dr. Hutton's testimony was based on the presumption Dee's leg could have been saved if specific arteries in his leg were suitable candidates for bypass surgery. However, in his testimony, he could not establish this presumption with certainty because the medical records were incomplete regarding the specific arteries in question. Dr. Hutton testified that "the only thing we know is that at least by the point that Dr. Schultz saw the patient, we had crossed the line in non-limb-threatening ischemia to potentially limb-threatening ischemia." Ischemia is the lack of blood flow through vessels. However, Dr. Hutton could not pinpoint a time when the ischemia became irreversible, nor could he pinpoint a time when earlier intervention would have changed the outcome. In Dr. Hutton's opinion "the probability that Mr. Alberts' leg could have been saved decreased significantly," because of the inaction of both physicians. Nevertheless, Dr. Hutton testified that he could not state to a reasonable degree of medical probability that immediate use of the motor and sensory exams, the arteriogram, and the bypass would have increased the chances of saving Dee's leg.

{8} The trial court granted partial summary judgment in favor of the defendants, because the Alberts could not establish to a reasonable degree of medical probability that the physicians' conduct proximately caused the amputation of Dee's leg. It denied the defendants' motions for summary judgment regarding the Alberts' claims for pain and suffering. However, the trial court found that there was an issue of fact about whether the allegedly negligent conduct of either or both defendants may have increased the risk that Dee's leg would have to be amputated. The trial court certified that issue for interlocutory appeal. As phrased by the trial court, this issue poses two questions: (1) whether New Mexico should recognize a patient's claim that, in the treatment of a medical condition, a health giver's negligence has resulted in the loss of a chance for a better result; and (2) if New Mexico does recognize loss of chance, whether the Alberts could recover under such claim. The Court of Appeals certified the case to us, having determined that it involves issues of substantial public interest. **See** NMSA 1978, § 34-5-14(C)(2) (1972). The New Mexico Trial Lawyers Association and the New Mexico Medical Society sought, and were permitted by this Court, to participate as amici curiae.

{9} *{*810}* Prior to our publication of this opinion, the Court of Appeals, on its own initiative, issued **Baer v. Regents of the Univ. of Cal.**, 972 P.2d 9, 1999-NMCA-5, 126 N.M. 508 (N.M. Ct. App., 1998 **)**, in which it expressly adopted the lost-chance concept that we were asked to evaluate in this opinion. Because we find the Court of Appeals' thoughtful analysis in **Baer** to be persuasive, we now affirm the adoption of the lost-chance theory in New Mexico. In response to the second part of the question certified, the facts of the case at bar do not support a lost-chance claim.

II. LOSS OF CHANCE

{10} As just mentioned, our Court of Appeals recently discussed in detail the lost-chance theory in **Baer**. In that case, the Court persuasively sets forth the equitable reasons for adopting this theory as well as its historical background. 1999-NMCA-5, PP7-18. In this opinion, for the benefit of the bench and bar, we will take the opportunity to set forth more explicitly the parameters, elements, and standards of proof for this claim.

{11} Generally, the fact pattern in a lost-chance claim begins when a patient comes to a health giver with a particular medical complaint. We will refer to "the illness, disorder, discomfort, pain, fear, etc. that is the main reason for the patient's seeking medical help" as the "presenting problem." **See** 5 J.E. Schmidt, **Att'ys' Dictionary of Med.** (MB), at P-426 (1998). The problem may be a sudden injury or illness, or it may be a malady that the patient has suffered over a long period of time. **See, e.g.**, **Delaney v. Cade**, 255 Kan. 199, 873 P.2d 175, 177-83 (Kan. 1994) (sudden injury; answering certified question in the affirmative, approving loss-of-chance claim for victim who claimed she suffered permanent paralysis after automobile accident, because of delay in transferring her to a facility that was equipped to properly treat her injuries); **Wendland v. Sparks**, 574 N.W.2d 327, 328-33 (Iowa 1998) (long term illness; even though patient had only 10% chance of leaving hospital, permitting loss-of-chance claim for patient being treated for several ailments including cancer of the plasma cells, and who suffered cardiorespiratory arrest while in hospital and was not revived by physician). A claim for loss of chance is predicated upon the negligent denial by a healthcare provider of the most effective therapy for a patient's presenting medical problem. The negligence may be found in such misconduct as an incorrect diagnosis, the application of inappropriate treatments, or the failure to timely provide the proper treatment. **See, e.g.**, **Boryla v. Pash**, 960 P.2d 123, 127 (Colo. 1998) (incorrect diagnosis permitted further growth of tumor); **Martin v. East Jefferson Gen. Hosp.**, 582 So. 2d 1272, 1278 (La. 1991) (improper treatment destroyed chance to survive treatable disease); **Hamil v. Bashline**, 481 Pa. 256, 392 A.2d 1280, 1289 (Pa. 1978) (prima facie case established that substantial chance of improvement was terminated by defendant's failure to provide timely treatment).

{12} The essence of the patient's claim is that, prior to the negligence, there was a chance that he or she would have been better off with adequate care. **See** John D. Hodson, Annotation, **Medical Malpractice: "Loss of Chance" Causality**, 54 A.L.R. 4th 10, § 2(a), at 17(1988) (stating that in such cases patients must present "expert

testimony that if proper treatment had been given, better results would have followed"). Because of the negligence, this chance has been lost. As emphasized by **Baer**, under the lost-chance theory, the patient may seek recovery even if the chance of a favorable outcome prior to the negligence was very slim. **See Baer**, slip op. P 10. Every patient has a certain probability that he or she will recover from the presenting medical problem. The probability of recovery may be high-more than fifty percent; or the prognosis may be more bleak-less than fifty percent. Whether great or small, there is **some** chance that the person will recover. Under the loss-of-chance theory, the health provider's malpractice has obliterated or reduced those odds of recovery that existed before the act of malpractice. The patient with a greater-than-fifty-percent chance of recovery is deprived of a more promising outcome. The patient with a slim chance is deprived of the opportunity to beat the odds. Where there was once a chance of a better result, now there is a lesser or no chance. **See Delaney**, 873 P.2d at 178 *{*811}* (citing Joseph H. King, Jr., **Causation, Valuation, and Chance in Personal Injury Torts Involving Preexisting Conditions and Future Consequences**, 90 Yale L.J. 1353, 1354 (1981)); James Lockhart, Annotation, **Cause of Action for Medical Malpractice Based on Loss of Chance of Cure**, 4 C.O.A. 2d 1, § 2, at 8 (1994) (patient was deprived of "a real, though less than certain, chance of being cured").

{13} Ultimately, the patient may suffer the consequences of the presenting medical problem. However, under the lost-chance theory, the patient does not allege that the malpractice caused his or her entire injury. Rather, the claim is that the health care provider's negligence reduced the chance of avoiding the injury actually sustained. **See Herber v. Johns-Manville Corp.**, 785 F.2d 79, 82 (3d Cir. 1986). Thus, it is that chance in and of itself-the lost opportunity of avoiding the presenting problem and achieving a better result-that becomes the item of value for which the patient seeks compensation. **See Delaney**, 873 P.2d at 178 (citing King, **supra**, at 1354); **Baer**, slip op. P 9 (claim is for "the loss of a definable chance to survive").

{14} Some of the resistance that this concept has received from other courts seems, in part, to be caused by the very terms by which it is named. The idea of a "lost chance" raises the concern that the claim is for something indeterminate, if not completely unreal. Some courts seek to clarify the theory by use of the term "increased risk of harm." **See, e.g.**, **Gardner v. Pawliw**, 150 N.J. 359, 696 A.2d 599, 613 (N.J. 1997). "It is necessary not to step into a quagmire of semantics when discussing the name of this doctrine." **Borkowski v. Sacheti**, 43 Conn. App. 294, 682 A.2d 1095, 1104 n.19 (Conn. App. Ct. 1996). As used by this theory, the word "chance" connotes an opportunity for a better result that is measured by the same kinds of statistical probabilities that are familiar to both physicians and courts of law. **See Smith v. State Dep't of Health & Hosp.**, 676 So. 2d 543, 550 (La. 1996) (Victory, J., dissenting) (stating "loss of chance of recovery is based on statistical probabilities"); **Wollen v. DePaul Health Ctr.**, 828 S.W.2d 681, 684 (Mo. 1992) (analyzing lost chance in terms of statistics and probabilities). Moreover, we believe that, when considering compensation for injuries under this theory, malpractice that reduces the probability that a patient will recover from the presenting problem is equivalent to malpractice that increases the probability that the patient will suffer the effects of that problem. **Scafidi v. Seiler**, 119 N.J. 93, 574

A.2d 398, 410 (N.J. 1990) (Handler, J., concurring) (stating that the concept is equally understandable whether called "lost chance" or "increased risk"). **But see United States v. Anderson**, 669 A.2d 73, 75-76 (Del. 1995) (distinguishing between "increased risk" and "lost chance").

{15} Many courts recognize, at least implicitly, loss-of-chance claims, though there are differing views as to their significance in a malpractice case. Lockhart, **supra**, § 11, at 46. Some jurisdictions do not expressly recognize the claim but do permit juries to evaluate proof of a less-than-even chance of a cure. **See, e.g.**, **Richmond County Hosp. Auth. Operating Univ. Hosp. v. Dickerson**, 182 Ga. App. 601, 356 S.E.2d 548, 550 (Ga. Ct. App. 1987) ("Proximate cause is not eliminated by merely establishing by expert opinion that the patient had less than a fifty percent chance of survival had the negligence not occurred."). Other jurisdictions will instruct juries, in a concurrent-causation analysis, to evaluate whether the lost chance was a "substantial factor" in the causing of the plaintiff's injuries. **See, e.g.**, **Gardner**, 696 A.2d at 608. Still other courts consider loss of chance to be a separate and distinct injury established by the same basic elements as any other medical malpractice tort. **See, e.g.**, **Perez v. Las Vegas Med. Ctr.**, 107 Nev. 1, 805 P.2d 589, 592 (Nev. 1991) (defining the injury as the loss of chance of survival). This appears to be the approach taken by **Baer** and it is the approach we adopt today. **See Baer**, slip op. PP10, 13 (describing the "compensable injury" as "not the death as such, but the destruction of the chance of survival" (citing King, **supra**, at 1378)).

{16} As **Baer** points out, the loss-of-chance concept is not an unprecedented departure from traditional theories of recovery in New Mexico tort law. **See Baer**, slip op. PP17-18. *{*812}* It is certainly not a theory that we have ever expressly abrogated. Loss of chance is conceptually related to well-established theories of recovery in New Mexico tort law, such as failure to diagnose, **Gonzales v. Sansoy**, 102 N.M. 136, 137, 692 P.2d 522, 523 (1984); comparative negligence, **Scott v. Rizzo**, 96 N.M. 682, 685-90, 634 P.2d 1234, 1237-42 (1981), **superseded by** NMSA 1978, § 41-3A-1 (1987) (several liability); enhancement of a preexisting condition, **Martinez v. First Nat'l Bank**, 107 N.M. 268, 269-71, 755 P.2d 606, 607-09 ; and failure to inform about a condition so that the condition remains untreated, UJI 13-1116B NMRA 1998. Loss of chance is not a new cause of action so much as a logical extension of existing probable cause analysis.

A. The Elements of Lost of Chance

{17} The basic test for establishing loss of chance is no different from the elements required in other medical malpractice actions, or in negligence suits in general: duty, breach, loss or damage, and causation. **See Goffe v. Pharmaseal Labs., Inc.**, 90 N.M. 764, 767, 568 P.2d 600, 603 (quoting William L. Prosser, **Handbook of the Law of Torts**, § 30, at 143-44 (4th ed. 1971)), **rev'd in part on other grounds by** 90 N.M. 753, 568 P.2d 589 (1977); Carl T. Drechsler, Annotation, 61 Am. Jur. 2d **Physicians, Surgeons, and Other Healers** § 329 (1981); **Baer**, slip op. P 19 ("In the current case Plaintiff had to show that Defendant breached a duty of care owed to Baer and that Baer's lost chance of survival, however measured, was likely caused by that breach.").

Loss of chance differs from other medical malpractice actions only in the nature of the harm for which relief is sought.

{18} The plaintiff bears the burden of proving each of these elements. **Anderson v. Picciotti**, 144 N.J. 195, 676 A.2d 127, 135-36 (N.J. 1996). Because the issues raised in lost-chance actions are, in virtually every case, "beyond the province of lay persons," the plaintiff will almost always establish these elements through expert testimony. **Pfiffner v. Correa**, 643 So. 2d 1228, 1234 (La. 1994).

1. Duty

{19} In New Mexico, as in most jurisdictions, healthcare providers are "under the duty to possess and apply the knowledge and to use the skill and care ordinarily used by reasonably well-qualified [health care providers] practicing under similar circumstances, giving due consideration to the locality involved." UJI 13-1101 (duty of doctor or other health care provider); **see also Cervantes v. Forbis**, 73 N.M. 445, 448, 389 P.2d 210, 213 (1964). The healthcare provider is not required to guarantee a particular beneficial result. A poor medical outcome is not necessarily evidence of any wrongdoing. UJI 13-1112 NMRA 1998; **see also Cervantes**, 73 N.M. at 448, 389 P.2d at 213. Nor is the physician expected to practice with infallible accuracy, the most modern technology, or unexcelled expertise. **Cf. Snia v. United Med. Ctr.**, 637 So. 2d 1290, 1294 (La. Ct. App. 1994). The doctor's adherence to his or her duty is "evaluated in terms of reasonableness under the circumstances at the time, not in terms of results or in the light of subsequent events." **Id.**

2. Breach

{20} A healthcare provider who breaches this duty of skill and care is negligent. UJI 13-1101 (duty of doctor or other health care provider); see also Cervantes, 73 N.M. at 448, 389 P.2d at 213 ("Before a physician or surgeon can be held liable for malpractice in the treatment of his patient, he must have departed from the recognized standards of medical practice in the community, or must have neglected to do something required by those standards."). A critical issue in most lost-chance actions, is not whether the defendant owed the patient a duty, but whether that duty was breached by the defendant's failure to timely or properly diagnose the presenting problem and follow an appropriate course of treatment. **See** Lockhart, **supra**, § 4, at 15.

3. Loss or damage

{21} As mentioned above, it is the injury alleged, that separates a lost-chance claim from other medical malpractice actions. The injury is the lost opportunity of a better *{*813}* result, not the harm caused by the presenting problem. It is not the physical harm itself, but rather the lost chance of avoiding the physical harm. **See James v. United States**, 483 F. Supp. 581, 587 (N.D. Cal. 1980) (describing the injury as "the loss of the opportunity for earlier and possibly more effective treatment."). As we explain below, the

causal connection between the negligence and the resultant injury must be medically probable.

{22} The chance of a better result may be conceptualized as a window of time that existed before the malpractice took place; in that window of time the healthcare provider had an opportunity to timely implement proper medical treatments that would avoid or minimize the occurrence of the injury. **Cf. Pfiffner**, 643 So. 2d at 1234 ("There are surely cases in which there are obvious unnecessary delays in treatment which constitute medical malpractice and where causation is evident."). Through negligent misdiagnosis, inappropriate therapy, or unnecessary delay, the window of time was closed. The act of malpractice may have immediately shut the window of time, or it may have caused a delay during which the window of time expired. The claim is not for the subsequent injury, but for the fact that it is now too late to do anything to avoid the injury. Correcting the problem is no longer possible.

{23} It must be emphasized that the injury-the lost chance-is not in any way speculative. It is manifested by actual physical harm. This claim must not be confused with cases in which, as a result of the tortious conduct of one party, another party suffers exposure to something harmful, which may, in the future lead to an injury. Loss of chance does not involve prognostication about future injury or harm. **See Perez**, 805 P.2d at 592 ("Of course, the plaintiff or injured person cannot recover merely on the basis of a decreased chance of survival or of avoiding a debilitating illness or injury; the plaintiff must in fact suffer death or debilitating injury before there can be an award of damages."). Rather, the patient must present evidence that the harm for which he or she originally sought treatment-the presenting medical problem-was in fact made worse by the lost chance. **See** Todd S. Aagaard, Note, **Identifying and Valuing the Injury in Lost Chance Cases**, 96 Mich. L. Rev. 1335, 1343 (1998) ("The plaintiff's ability to show damages will hinge on the occurrence of the ultimate harm . . . only to the extent, if any, that it reflects the existence or nonexistence of these losses.").

{24} Thus, in lost-chance cases, courts must be cognizant of two injuries: the underlying injury caused by the presenting problem and the exacerbation of the presenting problem which evinces the chance that has been lost. **See** 96 Mich. L. Rev. at 1341. Because the defendant's negligence combined with the patient's presenting problem to produce the adverse medical outcome, the patient may have difficulty distinguishing between the underlying injury and the lost-chance injury. **See id.** at 1342. The deterioration of the presenting problem is evidence that the chance of a better result has been diminished or lost.

{25} We see no reason at this time to limit lost-chance claims to those cases in which the chance of a better result has been utterly lost. Denying compensation for the diminution-as opposed to the loss-of a chance may lead to unreasonable hairsplitting. "Evidence of the physical progression of the patient's disease during a negligent delay in diagnosis or treatment may be sufficient to establish that the plaintiff was 'injured' by the delay." Lockhart, **supra**, § 9, at 36. It is possible that trial courts may conclude in some cases that the diminished chance of a better result is of negligible significance.

See, e.g., **Wollen**, 828 S.W.2d at 685 n.3 (limiting loss-of-chance recovery "to those cases in which the chance of recovery lost was sizeable enough to be material, which must be so found by the jury"). The cost of litigating such actions will no doubt discourage claims that are insignificant. **See** Lockhart, **supra**, § 11, at 45-46.

4. Cause

{26} If the Alberts had brought a claim under an ordinary medical malpractice negligence theory, the injury alleged would be the loss of Dee's leg below the knee. They cannot sustain such a claim, however, because *{*814}* his preexisting condition-peripheral vascular disease-precludes proof to a reasonable degree of medical probability that the doctors' negligence proximately caused the loss of the leg below the knee. In contrast, Dee can submit evidence that he had a chance-even if it was a small chance-of being cured of the presenting problem of rest pain and possible impending gangrene. He can be compensated if he can demonstrate, to a reasonable degree of medical probability, a causal link between the doctor's negligence and the loss of that chance.

{27} As **Baer** notes, "When the injury is defined not as the ultimate injury to the patient, but as the loss of a chance of survival, the standard for proximate cause does not change." **Baer**, slip op. P 14. As in any malpractice case, "the patient must prove that the [unintended incident of treatment] was caused by the [healthcare provider's] negligence." UJI 13-1112.

> A proximate cause of an injury is that which in a natural and continuous sequence [unbroken by an independent intervening cause] produces the injury, and without which the injury would not have occurred. It need not be the only cause, nor the last nor nearest cause. It is sufficient if it occurs with some other cause acting at the same time, which in combination with it, causes the injury.

UJI 13-305 NMRA 1998. Even when a healthcare provider has negligently treated a presenting problem, the fact that there is no longer a definable chance of a better result does not necessarily establish liability. There must be proof of a causal link between the negligence and the lost chance. **See Cervantes**, 73 N.M. at 448, 389 P.2d at 213 (must show poor medical result occurred because of physician's negligence).

{28} In order to prove proximate cause, the plaintiff must show by a preponderance of the evidence that the defendant's negligence resulted in the lost chance for a better result. **See Hurley v. United States**, 923 F.2d 1091, 1094 (4th Cir. 1991). The plaintiff is not required to prove causation to an absolute certainty. Rather, the probability of a causal link between negligence and injury must be supported by the weight of the evidence. **Id.** (stating "causation must be proved to a probability, but not to a certainty").

{29} If testimony is introduced to establish proximate cause, the evidence thus introduced must show to a reasonable degree of medical probability that the defendant's negligence caused the loss of the chance of a better result. **Baer** appears to express

approval for both the "reasonable degree of medical certainty" and the "reasonable degree of medical probability" standards of proof. **Compare Baer**, slip op. P 21 (discussing evidentiary standards of proof; quoting and looking for "guidance" in **Holton v. Memorial Hosp.**, 176 Ill. 2d 95, 679 N.E.2d 1202, 1213, 223 Ill. Dec. 429 (Ill. 1997), which used "medical certainty" standard), **with Baer**, slip op. P 22 (discussing **Borgren v. United States**, 716 F. Supp. 1378, 1381-83 (D. Kan. 1989), which used "reasonable medical probability" standard). In order to dispel the potential for any confusion, we emphasize that the standard in New Mexico is proof to a reasonable degree of medical probability. **See Madrid v. Lincoln County Med. Ctr.**, 1996-NMSC-49, P22, 122 N.M. 269, 923 P.2d 1154 (discussing medical probability standard as used by California courts); **Lopez v. Southwest Community Health Servs.**, 114 N.M. 2, 6-7, 833 P.2d 1183, 1187-88 (indicating New Mexico law requires negligence be established "to a degree of reasonable medical probability"); **Schrib v. Seidenberg**, 80 N.M. 573, 575, 458 P.2d 825, 827 (Ct. App. 1969) (finding of malpractice is substantially supported by experts' testimony that, "as a reasonable medical probability," physician's act proximately caused injury); **see also** NMSA 1978, § 41-5-20(A)(2) (1976) (under Medical Malpractice Act, panels that are empowered to review malpractice claims are instructed to inquire "whether there is a reasonable medical probability that the patient was injured" by acts of malpractice). The principle behind this terminology, is that, in proving causation, the plaintiff must introduce evidence that the injury more likely than not was proximately caused by the act of negligence.

{30} *{*815}* Both the "preponderance of evidence" and the "reasonable degree of medical probability" standards connote proof that a causal connection is more probable than not. It is appropriate, in a lost-chance case, that the plaintiff does not have to demonstrate absolute certainty of causation, because the physician's malpractice has made it impossible to know how the patient would have fared in the absence of any negligence. "The physician should not be able to avoid liability on the ground that it is uncertain what that outcome would have been." Lockhart, **supra**, § 2, at 9-10.

B. Calculation of Damages

{31} There are many theories as to the calculation of pecuniary damages for loss of chance. We conclude that damages should be awarded on a proportional basis as determined by the percentage value of the patient's chance for a better outcome prior to the negligent act. This is the approach suggested by **Baer**. **See Baer**, slip op. P 16 ("The percentage value of the patient's chance of survival is relevant only to the valuation of the damages that should be awarded.").

{32} In loss-of-chance cases, most courts apportion damages by valuing the chance of a better result as a percentage of the value of the entire life or limb. **See, e.g.**, **Boody v. United States**, 706 F. Supp. 1458, 1465-66 (D. Kan. 1989); **McKellips v. Saint Francis Hosp., Inc.**, 741 P.2d 467, 476 (Okla. 1987). For example, the value of a patient's fifty-percent chance of survival is fifty percent of the value of their total life. If medical malpractice reduced that chance of survival from fifty to twenty percent, that patient's compensation would be equal to thirty percent of the value of their life. **See,**

e.g., **Gordon v. Willis Knighton Med. Ctr.**, 661 So. 2d 991, 1000 (La. Ct. App. 1995) ("percentage probability of loss" applicable whether chance of survival is greater than or less than fifty percent). In another example, the value of a plaintiff's twenty-percent chance of saving a limb is twenty percent of the value of the entire limb. If that plaintiff lost the entire twenty-percent chance of saving the limb, their compensation would be twenty percent of the value of that limb. Thus, the percentage of chance lost is multiplied by the total value of the person's life or limb. **See, e.g.**, **Delaney**, 873 P.2d at 187; **Roberts v. Ohio Permanente Med. Group, Inc.**, 76 Ohio St. 3d 483, 668 N.E.2d 480, 484 (Ohio 1996); **Graham v. Willis-Knighton Med. Ctr.**, 699 So. 2d 365, 373 (La. 1997) (lost chance valued by jury at twenty to thirty-three percent of $ 470,000, which was total value of limb); Lockhart, **supra**, § 36, at 134 ("The proper method of fixing damages is . . . to determine the total amount of the plaintiff's injury arising out of loss of life or limb, then base damages on a percentage of that amount corresponding to a percentage of chance lost.").

{33} The valuation of life, limb, and lost chances is necessarily imprecise. Just as causation is proved by probabilities, the value of the loss must be established by fair approximations, based on the kinds of proof that courts commonly use when making such determinations. **But see Smith**, 676 So. 2d at 548-49 (criticizing as "imprecise" and "hypothetical" the calculation of the percentage of chance that has been lost and adopting method in which jury directly values lost chance and awards "lump sum").

III. LOSS OF CHANCE AS APPLIED TO THIS CASE

{34} When loss of chance, as set forth in this opinion, is applied to the facts of this case, the Alberts' claim must fail. The Alberts have not established the causation element in their negligence claim. They have not demonstrated, to a reasonable degree of medical probability, that the alleged negligence of Dr. Schultz and Dr. Reddy proximately caused Dee to lose the chance of saving his leg.

{35} As mentioned above, a lost-chance claim may be conceived of as the loss of a window of time. The loss of time is the essence of the Alberts' claim. They argue that there was a brief time, beginning on July 14, 1992, during which the proper medical intervention would have saved Dee's leg. He was showing symptoms of imminent gangrene, a condition that can become deadly with the passage of very little time. He was deprived of this window of time because, *{*816}* while his foot continued to deteriorate, he had to wait to see a specialist who would recognize the need for immediate treatment. Further, the Alberts claim Dee lost time because the proper tests were not performed and Dr. Schultz was thus not aware of the gravity of the situation. Additionally, they argue that the last available hours of the window were wasted by Dr. Reddy when he performed the wrong medical procedures.

{36} Unfortunately, the Alberts cannot demonstrate that there was a window of time during which measures could have been taken to foreclose the need to amputate Dee's leg. They cannot show, to a reasonable degree of medical probability, that timely and proper medical intervention would have saved Dee's leg. Specifically, they cannot show

that a bypass on July 14, 1992, would have precluded the amputation; nor can they show that Dee was a suitable candidate for a bypass on that date; nor can they show that Dee was a suitable candidate for a bypass on July 27, 1992, when Dr. Reddy finally saw him, but that he became unsuitable by the next day when the bypass was actually performed.

{37} The evidence the Alberts presented to support their lost-chance claim was based on incomplete medical records and unsupported assumptions. Dr. Hutton, the Alberts' expert, based his opinion on inadequately verified and speculative assumptions concerning Dee's condition. For example, he testified that bypass surgery would have had a strong chance of being successful **if** Dee's leg had exhibited "a good saphenous vein." However, Dr. Hutton stated no authoritative conclusions about the integrity of Dee's saphenous vein. In fact, he unequivocally stated that the medical records were incomplete, that certain information that would have credibly established Dee's suitability for surgery was not available. Thus Dr. Hutton stated that, **if** he had available "better arteriograms," he "would find **probably** " a particular artery to be suitable for bypass surgery. Without proof that Dee's leg possessed at least one vein or artery that was suitable for bypass surgery, the Alberts cannot validly contend that the failure to timely perform a bypass caused the leg to deteriorate. **Pfiffner**, 643 So. 2d at 1235 (concluding there was no support for contention that earlier surgical intervention would have saved patient's life). The Alberts, through their expert, were thus unable to prove to a reasonable medical probability that the physicians' alleged negligence proximately caused the lost chance to avoid the amputation of Dee's leg below the knee. **See Herber**, 785 F.2d at 82-83 (discussing the requirements under the loss-of-chance theory).

{38} The burden of proving reasonable medical probability rests with the plaintiff, and a causal connection between the alleged act of malpractice and the plaintiff's loss or damages cannot be substantiated by arguments based upon conjecture, surmise, or speculation. **See Wojcik v. City of Chicago**, 299 Ill. App. 3d 964, 702 N.E.2d 303, 314, 234 Ill. Dec. 137 (Ill. App. Ct. 1998). The testimony by the Alberts' expert failed to establish whether, absent any negligence by the physicians, Dee would have had a chance to avoid further deterioration of his leg. **See Snia**, 637 So. 2d at 1294 (nothing physician did or did not do deprived patient of her chance of survival). As mentioned above, proximate cause must be shown as a probability, not a possibility. **See Buchanan v. Downing**, 74 N.M. 423, 426, 394 P.2d 269, 271-72 (1964). The Alberts have failed to meet their burden.

{39} In answer to the second part of the certified question, we conclude that, in terms of the lost-chance theory, the Alberts have failed to demonstrate causation.

IV. CONCLUSION

{40} We recognize the legitimacy of the lost-chance concept in New Mexico, as set forth in this opinion. However, in this specific case, the Alberts are not entitled to

compensation under that theory because they did not prove that the alleged malpractice proximately caused Dee's lost chance for a better result.

{41} IT IS SO ORDERED.

GENE E. FRANCHINI, Chief Justice

WE CONCUR:

JOSEPH F. BACA, Justice

PATRICIO M. SERNA, Justice

PETRA JIMENEZ MAES, **Justice (dissenting)**

DISSENT

*{*817}* **PETRA J. MAES, Justice (Dissenting).**

{42} I agree with the adoption of the theory of loss-of-chance, but respectfully dissent on the disposition of this case.

{43} Here, through expert testimony Alberts cleared the hurdle of summary judgment on the theory of loss-of-chance, in my opinion. Plaintiff's expert, Dr. Hutton, testified to a reasonable degree of medical probability that the success rate of the bypass procedure would be greater than 90 percent. The testimony raises a genuine issue of material fact.

{44} I disagree with the majority's statement that Dr. Hutton's testimony is based on "incomplete medical records and unsupported assumptions". Granted, the opinions and reports upon which Dr. Hutton relied do not perfectly establish the condition of every inch of Plaintiff Alberts' leg. However, that is not the standard in New Mexico for the reliability of expert opinions. The standard is set forth in **Sanchez v. Molycorp, Inc.**, 103 N.M. 148, 152, 703 P.2d 925, 929 :

> An expert's opinion is not impermissibly speculative or lacking as to a factual basis where the expert gives a satisfactory explanation **as to how he [or she] arrived at his opinion. Harrison v. ICX Illinois-California Exp**., Inc., 98 N.M. 247, 647 P.2d 880 (Ct. App.), **cert. denied,** 98 N.M. 336, 648 P.2d 794 (1982). **Cf. Duran v. General Motors Corp.**, 101 N.M. 742, 688 P.2d 779 , **cert. denied,** 101 N.M. 555, 685 P.2d 963 (1984). Causation exists within a reasonable medical probability when a qualified medical expert testifies as to his opinion concerning causation and, in the absence of other reasonable casual [sic] explanations, it becomes more likely than not that the injury was a result of its action. NMSA 1978, § 52-1-28; **Bufalino v. Safeway Stores, Inc.**, 98 N.M. 560, 650 P.2d 844 (Ct. App.1982); **Lyon v. Catron County Commissioners**, 81 N.M.

120, 464 P.2d 410 (Ct. App.1969), **cert. denied,** 81 N.M. 140, 464 P.2d 559 (1970).

* * *

The testimony about causation was not speculative and constitutes substantial evidence sufficient to support the trial court's findings concerning causation.

{45} I believe Dr. Hutton's testimony met this test. For example, based on the lack of any mention of distal occlusions of the peroneal and posterior tibial artery in Dr. Winterkorn's **report, Dr. Hutton infers that there were none.** His opinion that either of these arteries would have been suitable for a bypass is based on this inference. (R.P. at 428.)[1]

{46} His opinion is not impermissible speculation; it is a reasonable inference from known facts. **See,** S**anchez v. Molycorp, supra; See** also **Orth v. Emerson Elec. Co., White-Rodgers Div**., 980 F.2d 632, 636-37 (10th Cir. 1992) (finding expert testimony sufficient to support jury verdict in products liability case even though expert's opinion rested "on a series of assumptions"); **Jones v. Otis Elevator Co.**, 861 F.2d 655, 663 (11th Cir. 1988).

{47} Dr. Hutton's expert **opinion was based on Dr. Winterkorn's reported observations of the blood vessels in Alberts' leg and on an objective test. In his deposition testimony, Dr. Hutton refers to Dr. Winterkorn's report of the condition of Alberts' arteries and veins:**

> Q. And are you relying on the angiograms for that, or what would did you use?
>
> A. **Combination of the angiograms and Dr. Winterkorn's angiographic description.**

Dr. Hutton refers to specific parts of the arteriogram and Dr. Winterkorn's report:

> A. . . . Over here we see what is probably the peroneal and the posterior tibial artery. We see that there's this chunk here. All right? And one of these vessels, we don't have films that *{*818}* show it farther distal. Okay? **But there is no mention in the dictated report of distal occlusions of the peroneal and posterior tibial artery.**
>
> Q. Okay.
>
> A. **Based upon that,** I would find probably the peroneal artery, probably the posterior tibial artery, if I had better arteriograms, as to **a suitable, although complex, outflow artery for a bypass.**

Dr. Hutton's assessment of the suitability of Alberts' blood vessels is **based on reported observations of those vessels:**

> Q. Let me ask you first with regard to the vessels that you now circled on Exhibit 9. Based on the films that you see, are these vessels that you think are going to be good sources for bypass that are going to supply circulation to the lower extremity?
>
> A. What do you mean by "good"?
>
> Q. Are they marginal, or is it going to be successful?
>
> A. I think the technical success rate, if they're continuous the rest of the way down, is greater than 90 percent.
>
> . . . .
>
> Q. And what you're saying is you felt that these angiograms showed you that more distal to that there was vessel that you could bypass to?
>
> A. Yes, and that's what [Dr. Winterkorn] says.
>
> (R.P. at 431.)
>
> (Emphasis added throughout testimony.)

{48} These statements are reliable enough to be admissible under Rule 11-703 NMRA 1998. **See Sanchez v. Molycorp, Inc**., 103 N.M. 148, 152, 703 P.2d 925, 929 . Dr. Hutton's assessment of the chances of success of a bypass from the common femoral artery to either the popliteal or the peroneal outflow artery was based in part on an extrapolation **from the condition of observed portions of these vessels to nearby portions. This is a satisfactory explanation and a reliable inference.**

{49} The majority has, I believe, weighed the evidence on appeal. **See Sanders v. Smith**, 83 N.M. 706, 710, 496 P.2d 1102, 1106 . Dr. Hutton's testimony must be viewed in the light most favorable to support the Plaintiffs' position. **See Wheeler v. Board of County Comm'rs**, 74 N.M. 165, 171, 391 P.2d 664, 668 (1964). We are required to make all inferences in favor of Plaintiff and interpret all material facts in favor of a trial on the merits. **See Rummel v. St. Paul Surplus Lines Ins. Co**., 1997-NMSC-42, P9, 123 N.M. 767, 770, 945 P.2d 985. I would conclude that the plaintiff has shown a genuine issue of material fact concerning the failure to timely perform the bypass which caused increased risk of harm to the plaintiff's leg. For these reasons, I would reverse the summary judgment **and remand this case to the district court for further proceedings.**

PETRA J. MAES, Justice

DISSENT FOOTNOTES

1 Dr. Winterkorn was a physician who performed a roentgenogram on the plaintiff and made a report of the results. From the record it seems that at times the parties refer to the X-ray photographs as an arteriogram and at other times as an angiogram. Technically, these terms differ in distinguishing whether an artery or a vessel was being depicted.