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Loss of a Chance as a Cause of Action in Medical Malpractice Cases

Wollen v. DePaul Health Center

I. INTRODUCTION

Regarding the subject of causation in torts, Prosser and Keeton write, "There is perhaps nothing in the entire field of law which has called forth more disagreement, or upon which the opinions are in such a welter of confusion." Judicial treatment of the relationship between causation and the relatively new theory of loss of a chance in medical malpractice cases demonstrates this welter of confusion. In 1992, the Supreme Court of Missouri addressed whether loss of chance can constitute a cause of action under Missouri law. This Note will examine the Wollen decision as well as the myriad of cases addressing loss of chance.

II. FACTS AND HOLDING

Linda F. Wollen filed a wrongful death action against Dr. Richard F. Jotte, Sr., DePaul Health Center, Ernst Radiology Clinic, Inc., and Dr. Edwin Ernst, III, for damages arising from the death of her husband, David L. Wollen. Ms. Wollen alleged the defendants failed to perform appropriate tests on her husband and incorrectly interpreted the tests conducted. Furthermore, proper procedures would have indicated that Mr. Wollen was suffered from gastric cancer. Had Mr. Wollen been accurately diagnosed

1. 828 S.W.2d 681 (Mo. 1992).
3. Wollen, 828 S.W.2d at 681. Missouri’s wrongful death statute, MO. REV. STAT. § 537.080 (1986), reads as follows:
   Whenever the death of a person results from any act, conduct, occurrence, transaction, or circumstance which, if death had not ensued, would have entitled such person to recover damages in respect thereof, the person or party who, or the corporation which, would have been liable if death had not ensued shall be liable in an action for damages, notwithstanding the death of the person injured . . . .
4. Wollen, 828 S.W.2d at 681-82.
5. Id. at 682.
and given treatment, his chance of surviving the disease would have been approximately thirty percent.\textsuperscript{5}

The Circuit Court of St. Louis County dismissed Ms. Wollen’s complaint because she failed to plead a causal connection between the defendants’ negligence and the death of her husband.\textsuperscript{7} Although the trial court granted Ms. Wollen leave to amend her petition, she refused and appealed to the Eastern District of the Missouri Court of Appeals.\textsuperscript{8}

In an unpublished opinion, the court of appeals affirmed the decision of the trial court.\textsuperscript{9} The court held Ms. Wollen did not properly plead that the defendants’ negligence was a legal cause of her husband’s death.\textsuperscript{10} In order to make a submissible case, the court noted, Ms. Wollen should have proven it was "more probable than not" that the defendants’ failure to diagnose the cancer caused her husband’s injury.\textsuperscript{11} Because Mr. Wollen would have had only a thirty percent chance of survival if the cancer was diagnosed, his death, more probably than not, would have happened because of his cancer.\textsuperscript{12}

Ms. Wollen argued she was not required to prove the defendants’ conduct was, more probably than not, the \textit{cause} of her husband’s death; but rather, that the defendants’ conduct was, more probably than not, merely a \textit{substantial factor} in causing her husband’s death.\textsuperscript{13} The court rejected this argument.\textsuperscript{14}

Ms. Wollen appealed to the Missouri Supreme Court. The court ordered the case transferred; vacated the decision of the court of appeals; and remanded the case for trial.\textsuperscript{15} The court held Ms. Wollen alleged facts supporting an action for lost chance of recovery under Missouri’s survivorship statute, which applies when the underlying injury did not cause death.\textsuperscript{16}

\begin{enumerate}
\item Id.\textsuperscript{5}
\item Id.\textsuperscript{7}
\item Id.\textsuperscript{8}
\item Id. at *1.\textsuperscript{9}
\item Id.\textsuperscript{10}
\item Id.\textsuperscript{11}
\item Id.\textsuperscript{12}
\item Id.\textsuperscript{13}
\item Id. at *11.\textsuperscript{14}
\item Wollen, 828 S.W.2d at 686.\textsuperscript{15}
\item Id. at 685. Missouri’s survivorship statute, Mo. REV. STAT. § 537.020 (1986), reads as follows:
\begin{quote}
Causes of action for personal injuries, \textit{other than those resulting in death}, whether such injuries be to the health or to the person of the injured party, shall not abate by reason of his death, nor by reason of the death of the person against whom such cause of action shall have accrued; but in case of the death of either or both such parties, such cause of action shall survive to the personal representative or such injured party, and against the
\end{quote}
\end{enumerate}

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III. LEGAL BACKGROUND

In order to clarify the relationship between causation and the theory of lost chance of recovery, it is necessary to examine the basic rules underlying causation in tort cases, including the rules for determining causation, proving causation, and introducing evidence of causation.

The usual medical malpractice case is a tort action sounding in negligence. Therefore, the plaintiff must prove the basic elements of negligence: duty, breach of duty, causation, and damages. To satisfy the causation element, the plaintiff must show both but-for causation and proximate causation. Under the traditional rule for determining but-for causation, the plaintiff must show that the injury would not have occurred without the defendant’s conduct. In the large majority of cases, this traditional and simple rule will be sufficient to determine but-for causation.

The traditional rule cannot determine but-for causation, however, in cases where two or more forces, each independently sufficient to produce an injury, combine simultaneously to produce injury. The classic example demonstrating the difficulty in applying the traditional rule for determining but-for causation in these situations is the "twin fires" problem, where a defendant negligently starts a fire which merges with another fire to destroy the plaintiff’s property. But for the defendant’s conduct, the plaintiff’s injury would still have occurred.

In cases where two or more independently sufficient forces combine to produce injury, courts have developed a different rule for determining but-for causation. To establish but-for causation in these cases, the plaintiff must show the defendant’s act or failure to act was a "substantial factor" in causing

person, receiver, or corporation liable for such injuries and his legal representatives, and the liability and the measure of damages shall be the same as if such death or deaths had not occurred.

Id. (emphasis added).
17. Wollen, 828 S.W.2d at 681.
18. For a detailed discussion of but-for causation, also labelled cause-in-fact, see Christopher M. Hohn, Note, Cause-In-Fact in Missouri: A Return to Normalcy, Callahan v. Cardinal Glenmon Hospital, 59 Mo. L. REV. 947 (1994).
19. KEETON ET AL., supra note 2, at 266.
20. See Hohn, supra note 18, at 950.
21. KEETON ET AL., supra note 2, at 266.
23. Id.
the plaintiff's harm. 24 Even though the substantial factor test usually applies to but-for causation, some courts will apply it to proximate causation.

The plaintiff has the burden of proving causation, regardless of whether the court uses the traditional or substantial factor rule for determining but-for causation. 25 The plaintiff must prove it was "more probable than not" that the defendant's act, or failure to act, caused the plaintiff's injuries. 26 Reduced to a mathematical concept, the plaintiff must prove a greater than fifty percent chance that the defendant's act or failure to act caused the injury. 27

Because a medical malpractice case often involves matters outside a jury's common knowledge, the plaintiff should introduce expert medical

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24. Hamil v. Bashline, 392 A.2d 1280, 1284 (Pa. 1978). See also Restatement (Second) of Torts § 431 (1965): "The actor's negligent conduct is a legal cause of harm to another if (a) his conduct is a substantial factor in bringing about the harm . . . ." Comment a, following § 431, defines substantial factor: "The word 'substantial' is used to denote the fact that the defendant's conduct has "such an effect in producing the harm as to lead reasonable men to regard it as a cause, using that word in the popular sense . . . ." Keeton et al., supra note 2, at 268; Hohn, supra note 18, at 950.

25. Keeton et al., supra note 2, at 269.

26. See Wollen, 828 S.W.2d at 681-82. This was the approach taken by the Missouri Court of Appeals, Eastern District, in denying recovery for Ms. Wollen. See also Keeton et al., supra note 2, at 269:

On the issue of the fact of causation, as on other issues essential to his cause of action for negligence, the plaintiff, in general, has the burden of proof. He must introduce evidence which affords a reasonable basis for the conclusion that it is more likely than not that the conduct of the defendant was a substantial factor in bringing about the result. A mere possibility of such causation is not enough; and when the matter remains one of pure speculation or conjecture, or the probabilities are at best evenly balanced, it becomes the duty of the court to direct a verdict for the defendant;

Restatement (Second) of Torts § 433B cmt. a (1965):

In civil cases, the plaintiff is required to produce evidence that the conduct of the defendant has been a substantial factor in bringing about the harm he has suffered, and to sustain his burden of proof by a preponderance of the evidence. This means that he must make it appear that it is more likely than not that the conduct of the defendant was a substantial factor in bringing about the harm. A mere possibility of such causation is not enough; and when the matter remains one of pure speculation or conjecture, or the probabilities are at best evenly balanced, it becomes the duty of the court to direct a verdict for the defendant.


testimony that establishes causation to a "reasonable degree of medical certainty." 28

In some medical malpractice cases, primarily those involving a failure to diagnose a preexisting condition, the plaintiff may not be able to prove causation by a greater than fifty percent chance because the decedent, due to a preexisting condition, had less than a fifty percent chance of living even if properly diagnosed and treated. It is more probable than not that the preexisting condition, rather than the defendant's actions, caused the injury. In these unique medical malpractice cases, however, some courts have developed new rules to allow the cause of action to go forward, based on the theory of lost chance of recovery.

A. Jurisdictions Allowing Recovery for Loss of a Chance

Many jurisdictions allowing recovery for loss of a chance 29 cite obiter dictum from Hicks v. United States 30 as the genesis for loss of chance as a cause of action: "[w]hen a defendant's negligent action or inaction has effectively terminated a person's chance of survival, it does not lie in the defendant's mouth to raise conjectures as to the measure of the chances that he has put beyond the possibility of realization." 31 Aside from recognizing this as a general statement underlying the principles of the law, courts differ in their approach to loss of a chance. This section will discuss the various legal standards, damage valuation methods, and policy considerations cited by courts allowing recovery for loss of chance. 32

30. 368 F.2d 626 (4th Cir. 1966).
31. Id. at 632.
32. For a general discussion of loss of a chance, see John D. Hodson, Annotation, Medical Malpractice: "Loss of a Chance" Causality, 54 A.L.R. 4th 10 (1987); Martin
1. Legal Standards

Jurisdictions allow recovery for loss of a chance based on one of two fundamental approaches, depending on how the court view the underlying injury. Under the first approach, courts adopt a "relaxed causation" standard.
framed by the Restatement (Second) of Torts section 323(a), which views the underlying injury as the ultimate injury sustained, usually death. 33 Under the second approach, courts treat the actual loss of a chance as a distinct, compensable injury; thus, the loss of a chance is itself the underlying injury. Dividing the many jurisdictions into various categories, however, is really an exercise in broad generalization. Some courts develop standards that contain elements of several approaches, while others develop standards that fail to fall into any category. The legal standards for loss of a chance might more accurately be described as a continuum that changes as the doctrine develops and is tested over time.

Many courts cite Hamil v. Bashline, 34 decided by the Supreme Court of Pennsylvania, as recognizing a cause of action for loss of a chance using the relaxed causation theory under the Restatement, section 323(a). The section reads:

One who undertakes, gratuitously or for consideration, to render services for another which he should recognize as necessary for the protection of the other's persons or things, is subject to liability to the other for physical harm resulting from his failure to exercise reasonable care to perform his undertaking, if (a) his failure to exercise such care increases the risk of such harm . . . .

Under this standard, the plaintiff must show the defendant's acts or omissions increased the risk of harm to the plaintiff. Thus, Hamil and other cases citing section 323 characterize loss of chance as an "increased risk of harm."

In most negligence cases, the plaintiff alleges the defendant caused the injury by setting in motion a force which resulted in harm. 35 In medical malpractice cases like Hamil, however, the plaintiff alleges the defendant failed to protect from a preexisting disease, causing the injury by increasing the risk of harm. 36

The Hamil court found that the effect of section 323 is to "relax the degree of certitude" normally required of the plaintiff's evidence as to proof


34. 392 A.2d 1280 (Pa. 1978).

35. RESTATEMENT (SECOND) OF TORTS § 323(a) (1965).

36. Hamil, 392 A.2d at 1286.

37. Id.
of causation in order to take the case to the jury.\textsuperscript{38} In cases where the defendant allegedly increased the risk of harm, it may be difficult for the plaintiff to prove the harm would not have resulted from the independent source, even if the defendant had not been negligent.\textsuperscript{39} "Such cases by their very nature elude the degree of certainty one would prefer and upon which the law normally insists before a person may be held liable."\textsuperscript{40} Accordingly, "[s]ection 323(a) tacitly acknowledges this difficulty and permits the issue to go to the jury upon a less than normal threshold of proof."\textsuperscript{41} Therefore, the actor is not completely insulated from liability because of uncertainties surrounding the consequences of the negligent conduct. If a plaintiff can demonstrate the defendant's acts or omissions increased the risk of harm to another,

such evidence furnishes a basis for the fact-finder to go further and find that such increased risk was in turn a substantial factor in bringing about the resultant harm; the necessary proximate cause will have been made out if the jury sees fit to find cause in fact.\textsuperscript{42}

The court emphasized that it did not intend to undermine the traditional evidentiary burden, requiring a reasonable degree of medical certainty, as the accepted norm for medical opinions regarding causation.\textsuperscript{43} However, in increased risk of harm cases where section 323 applies a prima facie case of liability is established if the plaintiff presents expert medical testimony, to a reasonable degree of medical certainty, that the defendant's conduct increased the risk of harm.\textsuperscript{44} Furthermore, the quantum of proof necessary to warrant a jury verdict for the plaintiff would still be a preponderance of the evidence.\textsuperscript{45}

Most importantly, Hamil shifts evidentiary considerations to the fact-finder when the plaintiff alleges an increased risk of harm. Thus, the approach is labeled relaxed causation.

This relaxed causation approach was followed by the Supreme Court of Washington in Herskovits v. Group Health Cooperative of Puget Sound.\textsuperscript{46}

\begin{enumerate}
\item 38. Id.
\item 39. Id. at 1287.
\item 40. Id.
\item 41. Id. at 1287-88.
\item 42. Id. at 1288. The Supreme Court of Pennsylvania framed increased risk of harm as a proximate cause issue rather than a cause-in-fact (or but-for cause) issue.
\item 43. Id.
\item 44. Id.
\item 45. Id. at 1288 n.9.
\item 46. 664 P.2d 474 (Wash. 1983) (plurality opinion).
\end{enumerate}
The court framed the issue as whether, under section 323, proof of increased risk of death by decreased chance of survival was sufficient to present the issue of proximate cause to the jury. Interpreting Hamil, the court stated that "[i]t is not necessary for a plaintiff to introduce evidence to establish that the negligence resulted in the injury or death, but simply that the negligence increased the risk of injury or death. The step from the increased risk to causation is one for the jury to make." The court held reduction of a chance of survival from thirty-nine to twenty-five percent would be sufficient evidence to allow the jury to consider the issue of proximate cause.

In Thompson v. Sun City Community Hospital Inc., the Supreme Court of Arizona followed Hamil and Herskovits and employed the relaxed causation approach. The court acknowledged the Restatement rule "permits the case to go to the jury on the issue of causation with less definite evidence of probability than the ordinary tort case." The jury is still instructed to find for the defendant, however, "unless they find a probability that defendant’s negligence was a cause of plaintiff’s injury." Therefore, it appears the traditional rules for proving causation remain intact, but the issue of causation may go to the jury upon proof of increased risk of harm. The jury will decide the issue of probability.

In McKellips v. Saint Francis Hospital, Inc., the Supreme Court of Oklahoma recognized a cause of action under a relaxed causation standard, but emphasized the traditional rules for determining causation in ordinary negligence cases would remain the same. The lowered standard for sufficiency of proof would allow the plaintiff to establish a jury question on the issue of causation. "The jury would be required to determine whether the increase in risk under the circumstances was more likely than not a substantial factor in causing the harm." Establishing a jury question did not require expert testimony expressing a precise percent loss of a chance.

47. Id. at 476. The court applied the relaxed causation standard to proximate causation rather than but-for causation.
48. Id. at 478 (citing Hamil, 392 A.2d 1280).
50. Id. at 615.
51. Id. at 616 (emphasis added).
52. Id.
53. Id.
54. 741 P.2d 467 (Okla. 1987).
55. Id. at 474-75.
56. Id. at 475.
57. Id.
58. Id.
Instead, testimony that the decedent's chances "would have significantly improved" was sufficient. 59

The Supreme Court of New Jersey adhered to its prior application of section 323 in medical malpractice actions in Scafidi v. Seiler. 60 "Evidence demonstrating within a reasonable degree of medical probability that negligent treatment increased the risk of harm posed by preexistent condition raises a jury question whether the increased risk was a substantial factor in producing the ultimate result." 61 The court approved the use of a two-pronged jury instruction. First, the jury must determine, as a matter of reasonable medical probability, that the defendant's deviation from the standard of care increased the risk of harm from the preexistent condition. 62 Second, the jury must determine whether the increase in risk was a substantial factor in producing the ultimate result. 63 "[T]he substantial factor standard requires the jury to determine whether the deviation [from the standard of care] was sufficiently significant in relation to the eventual harm." 64

The Supreme Court of Wisconsin in Ehlinger by Ehlinger v. Sipes 65 did not apply section 323, but nevertheless viewed the underlying injury as death. The court permitted the issue of causation to go to the jury on the basic "substantial factor" theory. In reversing the court of appeals' interpretation of section 323, the court noted "[s]ection 323(a) is generally viewed as relating only to the duty element in a negligence action. . . . Section 323(a) does not, as the court of appeals construed it to, lessen a plaintiff's burden of production on the issue of causation." 66 Under Wisconsin law, section 323 was not required to create a causation question for the jury. In short, "the plaintiff bears the burden of proving that the defendant's negligence was a substantial factor in causing the plaintiff's harm." 67 The court defined substantial factor as conduct that "has such an effect in producing the harm as to lead the trier of fact, as a reasonable person, to regard it as a cause, using that word in the popular sense." 68

59. Id.
60. 574 A.2d 398 (N.J. 1990). The Supreme Court of New Jersey also framed its inquiry in terms of proximate cause. Id. at 401-02.
61. Id. at 405-06.
62. Id. at 406.
63. Id.
64. Id. The court did not elaborate further or attempt to quantify substantial or sufficiently significant.
65. 454 N.W.2d 754 (Wis. 1990).
66. Id. at 758 (citations omitted).
67. Id.
68. Id.
The court refined this standard into a three-pronged test necessary to satisfy the burden of production on the issue of causation. In order to satisfy the test, the plaintiff must show that "the omitted treatment was intended to prevent the very type of harm which resulted, that the plaintiff would have submitted to the treatment, and that it is more probable than not the treatment could have lessened or avoided the plaintiff's injury had it been rendered." 69 If this burden is met, the trier of fact should determine whether the defendant's conduct was a substantial factor in causing the plaintiff's harm. 70 The court emphasized that the plaintiff need not show proper treatment would have been successful in lessening or avoiding the harm; only that it could have lessened or avoided it. 71 Finally, the court pointed out that the jury, in considering whether the defendant's conduct was a substantial factor in causing harm, may conclude that the conduct was not a substantial factor "because the injuries would have occurred irrespective of the negligence." 72

Several other jurisdictions have used section 323 when the plaintiff alleges the defendant increased the risk of harm, but fail to expressly indicate whether the "relaxed causation" or the traditional evidentiary standard of proof would apply. 73

Some courts, frustrated with the confusion of the various standards of proof, burdens of production, and ambiguous language involved with the section 323 relaxed causation approach, have developed a "pure chance" standard. This standard is almost universally recognized as deriving from an article by Yale Law School Professor Joseph H. King, Jr.:

To illustrate, consider the case in which a doctor negligently fails to diagnose a patient's cancerous condition until it has become inoperable. Assume further that even with a timely diagnosis the patient would have had only a 30% chance of recovering from the disease and surviving over

69. Id. at 759 (emphasis added).
70. Id.
71. Id. at 763.
72. Id.
73. See Thornton, 305 S.E.2d at 324-25 ("where a plaintiff in a malpractice case has demonstrated that a defendant's acts or omissions have increased the risk of harm... and... such increased risk of harm was a substantial factor in bringing about the ultimate injury to the plaintiff, then the defendant is liable for such ultimate injury."); Aasheim, 695 P.2d at 828 ("[T]he trier of fact should determine whether defendant's negligence was a substantial factor in reducing plaintiff's chances of obtaining a better result.") This court phrased the issue as whether the conduct reduced the plaintiff's chances, but held that the jury instruction should reflect the substantive law of § 323. See also Roberson, 686 P.2d at 160 ("[W]hether the negligence of defendant was a substantial factor in death is a matter for determination by a jury upon due consideration of all related factors.").
the long term. There are two ways of handling such a case. Under the traditional approach, this loss of a not-better-than-even chance of recovering from the cancer would not be compensable because it did not appear more likely than not that the patient would have survived with proper care. Recoverable damages, if any, would depend on the extent to which it appeared that cancer killed the patient sooner than it would have with timely diagnosis and treatment, and on the extent to which the delay in diagnosis aggravated the patient's condition, such as by causing additional pain.\(^7\)

Describing his pure chance theory, King stated:

A more rational approach, however, would allow recovery for the loss of the chance of cure even though the chance was not better than even. The probability of long-term survival would be reflected in the amount of damages awarded for the loss of the chance. While the plaintiff here could not prove by a preponderance of the evidence that he was denied a cure by the defendant's negligence, he could show by a preponderance that he was deprived of a 30% chance of a cure.\(^7\)

Under the pure chance standard, the underlying injury is viewed as the lost chance rather than the ultimate injury sustained.\(^7\) In *Deburkarte v. Louvar*,\(^7\) the Supreme Court of Iowa declined to employ the relaxed causation theory under section 323(a). Instead, the court found that section 323 indicates the injury may also be viewed as the lost chance to survive.\(^7\) Although the court affirmed jury instructions virtually identical to section 323(a), it added that the failure to exercise reasonable care must not only increase risk, but also be a proximate cause of increasing the risk. According to the court, a failure to exercise reasonable care is a proximate cause "when the actor's conduct is a substantial factor in bringing about the condition or injury sustained and when it appears that if it had not been for such act or omission the condition would not have been brought about or the injury

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75. Id.


77. 393 N.W.2d 131 (Iowa 1986).

78. Id. at 135.
sustained."\textsuperscript{79} The court defined substantial as conduct that "has such an effect in producing the harm as to lead a reasonable person to regard it as a cause."\textsuperscript{80}

\textit{Falcon v. Memorial Hospital}\textsuperscript{81} moved further away from section 323 toward the pure chance theory. The Supreme Court of Michigan viewed the underlying injury as the "loss of opportunity of avoiding physical harm."\textsuperscript{82} The traditional standard for the burden of production, more probable than not, would remain the same; but the fact to be proven changed from cause of death to the loss of opportunity. The plaintiff must show, more probably than not, that "had there been a correct diagnosis, the patient would have had a substantial opportunity of avoiding the course of the disease and treatment that occurred."\textsuperscript{83} The court held that the thirty-seven and one-half percent chance of living in the case before it was a loss of a substantial opportunity of avoiding harm.\textsuperscript{84} The court expressly declined to decide, however, what lesser percentage would still constitute a substantial loss of opportunity.\textsuperscript{85}

The Supreme Court of Nevada in \textit{Perez v. Las Medical Center}\textsuperscript{86} adopted the loss of a chance doctrine. The court stated that under this doctrine, the injury to be redressed is not the death itself, but the decreased chance of survival.\textsuperscript{87} Like \textit{Falcon}, the court noted that defining the injury as the loss of chance of survival avoids the burden of production distinction involved in the relaxed causation cases; the traditional rule of preponderance will continue to apply.\textsuperscript{88} Specifically, the plaintiff must present evidence tending to show, to a reasonable medical probability, that some negligent act or omission by health care providers reduced a substantial chance of survival given appropriate medical care. In accord with other courts adopting this view, we need not now state exactly how high the chances of survival must be in order to be "substantial."\textsuperscript{89}

\textsuperscript{79} Id. at 138.

\textsuperscript{80} Id. This follows the Restatement. This definition seems particularly circular as the court had been previously attempting to define cause. See supra note 24.

\textsuperscript{81} 462 N.W.2d 44 (Mich 1990).

\textsuperscript{82} Id. at 52.

\textsuperscript{83} Id. at 57 n.43.

\textsuperscript{84} Id. at 56.

\textsuperscript{85} Id. at 56-57.

\textsuperscript{86} 805 P.2d 589 (Nev. 1991).

\textsuperscript{87} Id. at 592.

\textsuperscript{88} Id.

\textsuperscript{89} Id. The court noted this issue would be addressed on a case by case basis, but doubted the dissent's example of a ten percent chance of survival would be actionable. Id.
By viewing the underlying injury as the loss of a chance, the courts employing the pure chance approach maintain traditional rules for proving causation; the only change is recognizing the loss of a chance as a compensable injury. As Perez demonstrates, the plaintiff must still prove the defendant's act or failure to act more probably than not caused the loss of a chance and the evidence must still demonstrate within reasonable medical certainty that the act or failure to act caused the loss of a chance.90

The Indiana Court of Appeals adopted the pure loss of a chance doctrine in Mayhue v. Sparkman.91 The court rejected the section 323 approach because it "addresses the issue of duty, not causation."92 Furthermore, under section 323, "the compensable injury is generally viewed as the death and recovery for the death is allowed in the absence of a causal relationship between the negligence and the death."93 The court found the underlying injury to be the loss of chance rather than the death.94 Under this approach, the traditional reasonable probability test is still applied.95 The plaintiff must show, to a reasonable degree of medical probability, that the defendant decreased the plaintiff's chance of survival or successful treatment.96 The court later qualified this standard by requiring that the defendant deprive the plaintiff of a substantial chance of survival.97 The court did not define substantial, but instead left the issue to be determined on a case by case basis.98

2. Damage Valuation

The damage valuation method used by a court will often depend upon the legal standard applicable to loss of a chance. Like the legal standards, the damage valuation methods are not easily categorized.99

90. Id.
92. Id. at 1359.
93. Id.
94. Id.
95. Id. at 1360.
96. Id.
97. Id.
98. Id. The court, in conclusion, noted that in order for the husband to prevail on his loss of consortium claim (an entirely different cause of action from loss of a chance), he would still need to prove all the elements of a negligence claim, including causation as it is traditionally defined. Id. at 1361.
99. For a thorough discussion of damages under loss of a chance, see McMahon, supra note 32.
The *Herskovits* court, using the relaxed causation standard, held that causing the loss of a chance does not necessitate a total recovery for all damages caused by the injury. "Damages should be awarded to the injured party or his family based only on damages caused directly by premature death, such as lost earnings and additional medical expenses, etc."\(^1\)

The Supreme Court of Oklahoma in *McKellips* also used the relaxed causation approach. It noted that *Herskovits* did not offer a clear method to adjust the damage award. Rather than relying upon the jury's common sense to discount the damages, "[t]he amount of damages recoverable is equal to the percent of chance lost multiplied by the total amount of damages which are ordinarily allowed in a wrongful death action."\(^2\) This method of measuring damage recovery was taken from Professor King's article.\(^3\)

To illustrate, consider a patient who suffers a heart attack and dies as a result. Assume that the defendant-physician negligently misdiagnosed the patient's condition, but that the patient would have had only a 40% chance of survival even with a timely diagnosis and proper care. Regardless of whether it could be said that the defendant caused the decedent's death, he caused the loss of chance and that chance-interest should be completely redressed in its own right. Under the proposed rule, the plaintiff's compensation for the loss of the victim's chance of surviving the heart attack would be 40% of the compensable value of the victim's life had he survived (including what his earning capacity would otherwise have been in the years following death). The value placed on the patient's life would reflect such factors as his age, health, and earning potential, including the fact that he had suffered the heart attack and the assumption that he had survived it. The 40% computation would be applied to that based [sic] figure.\(^4\)

The Supreme Court of New Jersey also cited this illustration as the appropriate standard for determining damages.\(^5\) In the court's view, "a rule that limits a plaintiff's damages ... to the value of the lost chance of recovery is an essential complement to ... modification of the proof required to establish proximate causation."\(^6\) The damages aspect of the cases using the relaxed causation standard makes them especially confusing. Courts view the underlying injury as death and relax the plaintiff's burden to prove

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100. *Herskovits*, 664 P.2d at 479.
102. See supra note 74.
103. *Supra* note 74, at 1382. King calculates damages based on the value of the decedent's life to the decedent.
105. *Id.* at 408.
causation. The courts compensate, however, not for the ultimate injury but for the loss of a chance.

In *Falcon*, the Supreme Court of Michigan used the pure chance approach and employed a damage valuation method similar to that proposed by Professor King and used by the court in *McKellips*. The percentage of chance lost "times the damages recoverable for wrongful death would be an appropriate measure of damages."\(^{106}\)

In *DeBurkarte*, the Supreme Court of Iowa also compensated for the value of the lost chance.\(^{107\) "The jury’s task was to value that reduction [in the decedent’s chance of survival]. It was limited under the instructions to award damages for past unreimbursed medical expenses, and past and future pain and suffering for the reduction."\(^{108}\)

Finally, the Supreme Court of Nevada adopted the pure loss of chance doctrine and, citing *McKellips*, held that the amount of damages recoverable would be the percent of lost chance of survival multiplied by the total amount of damages allowable in a wrongful death action.\(^{109}\) The court added an important qualifier, however, to damage awards: "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."\(^{110}\)

3. Policy Considerations

Courts cite a number of different policy considerations for rejecting the traditional standard of more likely than not causation. The standard "declares open season on critically ill or injured persons as care providers would be free of liability for even the grossest malpractice if the patient had only a fifty-fifty chance of surviving the disease or injury even with proper treatment."\(^{111}\)

The traditional standard "puts a premium on each party’s search for the willing witness... [F]or every expert witness who evaluates the lost chance at 49% there is another who estimates it at closer to 51%."\(^{112}\) The standard

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106. *Falcon*, 462 N.W.2d at 57.
107. *DeBurkarte*, 393 N.W.2d at 139.
108. *Id.*
110. *Id.* See also *Mayhue*, 627 N.E.2d at 1360 ("[R]ecovery for the loss of chance of survival can only occur where the patient dies because a patient who is still living has not lost the chance of survival.").
112. *Thompson*, 686 P.2d at 615. See also *McKellips*, 741 P.2d at 474 ("Under the present standard of probability applied in all negligence cases... an expert must speak the ‘magic words,’ i.e., that the defendant’s conduct more probably than not...")
defeats a primary function of the tort system—deterrence—because it "prevents any individual in a group from recovering, even though it may be statistically irrefutable that some have been injured."\footnote{113}

Another underlying reason for adopting loss of a chance is to prohibit the wrongdoer, who puts the possibility of recovery beyond realization, from saying afterward that "the result was inevitable. . . . To decide otherwise would be a blanket release from liability for doctors and hospitals any time there was a less than a 50 percent chance of survival, regardless of how flagrant the conduct."\footnote{114} In this limited class of cases, the defendant’s actions force the court to look at the proverbial crystal ball to decide what might have been.\footnote{115} Thus, the courts will refuse to place upon an injured person "the burden of proving what more probably than not would have happened had the defendant not been negligent."\footnote{116}

Adopting loss of a chance recognizes the realities inherent in medical malpractice litigation: "[p]eople who seek medical treatment are diseased or injured. Failure to diagnose or properly treat denies the opportunity to recover."\footnote{117}

Finally, loss of a chance serves important societal interests. "A rule of law that more precisely confines physicians’ liability for negligence to the value of the interest damaged should have a salutary effect on the cost and availability of medical care."\footnote{118}

\footnote{113.}\textit{Thompson}, 688 P.2d at 607. \textit{See also McKellips}, 741 P.2d at 474 (["T]his view tends to subvert the deterrance function of tort law.").

\footnote{114.} \textit{Herskovits}, 664 P.2d at 476-77. \textit{See also Perez}, 805 P.2d at 591 (The traditional rule "would bar any recovery in tort on behalf of the survivors of many potentially terminal patients, no matter how blatant the health care provider’s negligence." The physician could reduce a patient’s chances of survival from fifty to ten percent "and yet remain unanswered in the law of tort. This position is simply untenable.").

\footnote{115.} \textit{Thompson}, 688 P.2d at 616.

\footnote{116.} \textit{Ehlinger}, 454 N.W.2d at 761.

\footnote{117.} \textit{Aasheim}, 695 P.2d at 828.

\footnote{118.} \textit{Scafidi}, 574 A.2d at 408.
B. Jurisdictions Denying Recovery For Loss of a Chance

A number of jurisdictions deny recovery for loss of a chance.\textsuperscript{119} These courts adhere to the traditional standard for proving causation by requiring the plaintiff to show the defendant's conduct more probably than not caused the ultimate injury.\textsuperscript{120} As long as the plaintiff can show the defendant caused the injury, the plaintiff can recover all damages resulting from the injury. If the plaintiff cannot show the defendant caused the injury, the plaintiff recovers no damages. This is sometimes referred to as the "all-or-nothing" approach. Courts rejecting loss of a chance cite a number of policy reasons counseling against recognition of the cause of action.

Many courts follow the reasoning of the Ohio Supreme Court in \textit{Cooper v. Sisters of Charity of Cincinnati:}\textsuperscript{121}

Lesser standards of proof are understandably attractive in malpractice cases where physical well being, and life itself, are the subject of litigation. The strong intuitive sense of humanity tends to emotionally direct us toward a conclusion that in an action for wrongful death an injured person should be compensated for the loss of any chance for survival, regardless of its remoteness. However, we would have trepidations that such a rule would be so loose that it would produce more injustice than justice.\textsuperscript{122}

Florida also rejected the loss of a chance theory in \textit{Gooding v. University Hospital Building, Inc.}\textsuperscript{123} The court pointed out that the theory could create an injustice because health care providers would be forced to defend cases where either a patient fails to improve or where serious disease processes are not eliminated by a course of action that could somehow produce a better result.\textsuperscript{124} "[N]o other professional malpractice defendant carries this burden


\textsuperscript{120} See, e.g., Cooper, 272 N.E.2d at 103.

\textsuperscript{121} 272 N.E.2d 97 (Ohio 1971).

\textsuperscript{122} Id. at 103.

\textsuperscript{123} 445 So. 2d 1015 (Fla. 1984).

\textsuperscript{124} Id. at 1019-20.
of liability without the requirement that plaintiffs prove the alleged negligence probably rather than possibly caused the injury.\textsuperscript{125}

In addition, \textit{Pillsbury-Flood v. Portsmouth Hospital}\textsuperscript{126} rejected loss of a chance. According to the Supreme Court of New Hampshire, "[c]ausation is a matter of probability, not possibility."\textsuperscript{127} Adopting loss of a chance would be contrary to "a fundamental tenet of tort law that the plaintiff retains the ultimate burden of persuasion in negligence actions."\textsuperscript{128} Upholding the traditional rule ensures that defendants will not be required to disprove causation.\textsuperscript{129}

The reasoning of \textit{Hamil} and its progeny, using section 323 to relax the burden of proof as to causation, was also criticized in \textit{Sherer v. James}.\textsuperscript{130} The Supreme Court of South Carolina held that even if section 323(a) applies to a medical malpractice case, "it applies only to duty and not proximate cause."\textsuperscript{131} Furthermore, even if section 323 could be construed to relate to proximate cause, the court was unwilling to relax the traditional standard.

Through the use of a hypothetical situation, the Maryland Court of Appeals in \textit{Fennell v. Southern Maryland Hospital Center, Inc.}\textsuperscript{132} examined the statistical problems associated with adopting loss of a chance:

\begin{quote}
To compare the two rules, assume a hypothetical group of 99 cancer patients, each of whom would have had a 33 1/3\% chance of survival. Each received negligent medical care, and all 99 died. Traditional tort law would deny recovery in all 99 cases because each patient had less than a 50\% chance of recovery and the probable cause of death was the pre-existing cancer not the negligence. Statistically, had all 99 received proper treatment, 33 would have lived and 66 would have died; so the traditional rule would have statistically produced 33 errors by denying recovery to all 99.

The loss of chance rule would allow all 99 patients recover, but each would recover 33 1/3\% of the normal value of the case. Again, with proper care 33 patients would have survived. Thus, the 33 patients who statistically would have survived with proper care would receive only one-third of the appropriate recovery, while the 66 patients who died as a result of the pre-existing condition, not the negligence, would be overcompensated
\end{quote}

\begin{footnotes}
\item 125. \textit{Id.} at 1020.
\item 126. 512 A.2d 1126 (N.H. 1986).
\item 127. \textit{Id.} at 1130.
\item 128. \textit{Id.} at 1129.
\item 129. \textit{Id.} at 1130.
\item 130. 351 S.E.2d 148 (S.C. 1986).
\item 131. \textit{Id.} at 150.
\end{footnotes}
by one-third. The loss of chance rule would have produced errors in all 99 cases.\textsuperscript{133}

\textit{Manning v. Twin Falls Clinic and Hospital, Inc.}\textsuperscript{134} reviewed the standards of relaxed causation and lost chance and rejected both. The court affirmed the decision of the trial court to instruct the jury based on substantial factor language for proximate cause. Proximate cause should be defined as "a cause which, in natural or probable sequence, produced the complained injury, loss or damage. It need not be the only cause. It is sufficient if it is a substantial factor in bringing about the injury, loss or damage."\textsuperscript{135} This standard, according to the court, strikes a fair balance between the claimant and defense.\textsuperscript{136} While the court expressly rejected loss of a chance, the substantial factor instruction nevertheless resembles instructions in other jurisdictions that purport to adopt loss of a chance.

\textit{Kramer v. Lewisville Memorial Hospital}\textsuperscript{137} points out a flaw in the reasoning of pure loss of a chance cases, where the underlying injury is deemed to be the loss of chance rather than the ultimate physical harm. "Unless courts are going to compensate patients who 'beat the odds' and make full recovery, the lost chance cannot be proven unless and until the ultimate harm occurs."\textsuperscript{138} Furthermore, a court cannot in any principled way apply loss of a chance to other professionals, such as lawyers who negligently handle cases and reduce their client's chances of winning.\textsuperscript{139}

\textbf{C. Missouri Law}

In Missouri, prior to the \textit{Wollen} decision, in order to show a causal connection between the defendant's actions and the injury, the plaintiff was required to show "the injury would not have been sustained but for the

\begin{footnotesize}
\footnote{133. \textit{Id.} at 213-14. \textit{See also} Mayhue v. Sparkman, 627 N.E.2d 1354, 1361 (Staton, J., dissenting); Lisa Perrochet et al., \textit{supra} note 32.}\footnote{134. 830 P.2d 1185 (Idaho 1991).}\footnote{135. \textit{Id.} at 1189.}\footnote{136. \textit{Id.} at 1190.}\footnote{137. 858 S.W.2d 397, 405 (Tex. 1994). In rejecting loss of a chance, the Texas Supreme Court employed language resembling Fourteenth Amendment incorporation theory: "The more likely than not standard is thus not some arbitrary, irrational benchmark for cutting off malpractice recoveries, but rather a fundamental prerequisite of an ordered system of justice." \textit{Id.}}\footnote{138. \textit{Id.}}\footnote{139. \textit{Id.} at 406. The court also noted that \textit{Restatement (Second) of Torts} § 323 (1964) "does not determine or suggest the appropriate standard of causation." \textit{Kramer}, 858 S.W.2d at 405.}
\end{footnotesize}
To establish a jury question on causation, the plaintiff was required to prove that it was more probable than not the injury was caused by the defendant’s negligence. 

In introducing evidence of causation, the plaintiff must be able to demonstrate with reasonable medical or scientific certainty that the defendant’s negligence caused the harm. Against the background of these legal principles, the Supreme Court of Missouri considered Ms. Wollen’s complaint.

IV. THE INSTANT DECISION

Judge Benton, writing for a unanimous court in Wollen, framed the issue in the case as "whether the ultimate legal fact of causation can be inferred from [the] facts." If the plaintiff can plead there is "reasonable medical or scientific certainty" that the defendant’s negligence caused the harm, causation can be inferred from the facts. A case involves reasonable medical certainty when there is a cure that works "in the overwhelming majority of cases." The court noted that in failure to diagnose cases, a statistic is often used to show causation. The statistic, however, cannot demonstrate causation to a reasonable degree of medical certainty because "there is a real chance that the patient will survive and a real chance that the patient will die." Therefore, under the traditional rules, the pleading would not survive a motion to dismiss. The court then addressed alternative theories of recovery.

The court first disposed of Ms. Wollen’s argument that the defendants’ actions were a substantial factor contributing to her husband’s death. To be a substantial factor in causing injury, a plaintiff must show it is more likely than not that but for the actions of the tortfeasors, the injury would not have occurred. Because Ms. Wollen could only allege that the defendants’ actions might have contributed to her husband’s death, Ms. Wollen could not

143. Wollen, 828 S.W.2d at 682.
144. Id.
145. Id.
146. Id.
147. Id. at 683.
148. Id.
show the defendants’ actions were a substantial factor in causing his death.\textsuperscript{149}

The court next considered whether Missouri should recognize a theory based on the Restatement (Second) of Torts, section 323(a).\textsuperscript{150} The court found that although section 323 creates a duty of care, it does not alter the rules of causation.\textsuperscript{151} Because the court had just rejected Ms. Wollen’s argument that the defendants’ conduct was a substantial factor in causing Mr. Wollen’s death, section 323 did not enable Ms. Wollen to recover.\textsuperscript{152}

Finally, the court considered whether Ms. Wollen was entitled to relief under the lost chance of recovery theory. The court found that a medical patient suffers a harm when a physician fails to diagnose or treat a disease; but the harm suffered is the loss of a chance of recovery rather than the loss of life or limb.\textsuperscript{153} Damages are measured by multiplying the value of a lost life or limb by the chance of recovery lost.\textsuperscript{154} In a case involving comparative fault, the damage award would be reduced by any percentage of fault attributed to the plaintiff.\textsuperscript{155} The cause of action for lost chance of recovery would be limited to cases in which the chance of recovery was "sizeable enough to be material."\textsuperscript{156}

In concluding, the court noted the proper statute by which loss of a chance of recovery actions must be brought. Ms. Wollen brought her case under Missouri’s wrongful death statute, which requires that the death of a person must result from the negligence of the tortfeasors.\textsuperscript{157} The wrongful death statute applies, therefore, when the injury causes death.\textsuperscript{158} Because there is a significant chance of either survival or death in loss of a chance cases, it is impossible to prove that a persons’s death resulted from the failure to properly diagnose or treat.\textsuperscript{159} Thus, loss of a chance of recovery actions

\textsuperscript{149} Id.
\textsuperscript{150} Id. at 686. It is noteworthy that this theory was not discussed in the plaintiff’s brief; it appeared for the first time in oral argument before the Supreme Court. Id.
\textsuperscript{151} Id. at 683.
\textsuperscript{152} Id.
\textsuperscript{153} Id. at 684.
\textsuperscript{154} Id.
\textsuperscript{155} Id. at 684 n.2.
\textsuperscript{156} Id. at 685 n.3. The question of materiality will be left to the jury to determine. The lost chance must be "statistically significant within applicable statistical standards." Id.
\textsuperscript{157} Id. at 685. See also Mo. Rev. Stat. § 537.080 (1986) (Missouri’s wrongful death statute), supra note 3.
\textsuperscript{158} Id.
\textsuperscript{159} Id.
cannot be brought under Missouri's wrongful death statute. Instead, a plaintiff must bring suit under Missouri's survivorship statute, which applies when the alleged injury did not cause death. Based on this analysis, the court allowed Ms. Wollen to amend her petition and bring the suit under Missouri's survivorship statute.

V. COMMENT

As with the recognition of any new cause of action, Wollen raises important issues of both policy and practicality.

A. Policy Issues

Loss of a chance is a compelling subject not only in the realm of tort liability but also in medicine. Recognizing loss of a chance may or may not affect the costs of medical care. While impressive statistics can be marshalled by both supporters and opponents of the rule, it seems impossible to conclusively determine the impact of loss of a chance upon medical care costs.

Judge Chasanow, writing for the majority in Fennell, posed a hypothetical to analyze loss of a chance and concluded that it should be rejected as a cause of action. Further examination of the statistical analysis posed by the court in Fennell leads this author to believe no additional money would change hands between plaintiffs and defendants under loss of chance, as compared to the traditional standards, provided there are equal numbers of people on either side of the traditional fifty percent standard.

Suppose in the Fennell hypothetical that each plaintiff sustained one dollar in damages. Under the traditional system, since injured plaintiffs could not recover any amount of money, the medical defendants would pay nothing. Under the loss of chance rule, the thirty-three undercompensated plaintiffs would recover one-third of their damages, or eleven dollars. The sixty-six overcompensated plaintiffs would also recover one-third of their damages, or twenty-two dollars. Thus, the medical defendants would pay a total of thirty-three dollars. The difference between the traditional system (no recovery) and the loss of chance rule (thirty-three dollars total) yields a thirty-three dollar detriment for the medical defendants.

However, consider a group of ninety-nine people on the other side of the coin, each with a sixty-six and two-thirds chance of survival. Again, suppose

160. Id.
161. Id. at 685. See also Mo. Rev. Stat. § 537.020 (1986) (Missouri's survivorship statute), supra note 16.
162. Id.
163. See supra text accompanying note 133.
each injured plaintiff sustained one dollar in damages. Under the traditional system, because the chance of survival is greater than fifty percent, the medical defendants would pay all damages to all plaintiffs, for a total of ninety-nine dollars. Under the loss of chance rule, the sixty-six undercompensated plaintiffs would recover two-thirds of their damages, or forty-four dollars. The thirty-three overcompensated plaintiffs would also recover two-thirds of their damages, or twenty-two dollars. Thus the medical defendants would pay a total of sixty-six dollars. The difference between the traditional system (ninety-nine dollars total) and the loss of chance rule (sixty-six dollars total) yields a thirty-three dollar benefit to the medical defendants.

This hypothetical demonstrates that the medical defendants will pay out more money under the loss of chance rule than under the traditional system when the chance of survival is less than fifty percent, but less money when the chance is greater than fifty percent. If statistically there are just as many people with a less than fifty percent chance to survive before the failure to diagnose and treat as there are with a greater than fifty percent chance to survive, the money changing hands between plaintiffs and defendants will still be the same.

The value of Fennell's hypothetical is that it precisely embodies a major rationale behind American tort law: loss spreading. Additional errors resulting from applying the loss of chance rule is simply another way of saying more people are compensated than would statistically deserve compensation. Because more people are compensated but the same amount of money changes hands under the loss of chance rule, it seems the general class of plaintiffs, rather than the individual plaintiffs, bears the loss of potential undercompensation.

One drawback of the loss of chance rule is increased transaction costs, i.e., litigation costs. The loss of a chance rule allows more suits to be brought. Thus, medical defendants will actually be paying more to lawyers, experts, and courts. At least one court has suggested a counter argument: "in cases where the chances of survival were modest, plaintiffs will have little monetary incentive to bring a case to trial because damages would be drastically reduced to account for the preexisting condition."164

It is likely that loss of a chance arguments will be made to expand liabilities in areas beside medical malpractice, despite the courts' admonitions that the doctrine is limited to those types of cases. Several courts have already confronted this argument in legal malpractice cases.165 While the policy reasons set forth for adopting loss of a chance seem equally applicable

to other areas of negligence, distinguishing when loss of a chance is appropriate will be a difficult challenge.

B. Practical Issues

Aside from the general policy questions surrounding the adoption of loss of a chance, Wollen leaves a few practical issues unresolved.

Missouri Approved Instructions ("MAI") 21.09 sets out jury instructions for damages under lost chance of survival. The jury must determine the total amount of damages sustained by the decedent before death as a direct result of the absence of recovery and any damages sustained by the decedent’s survivors after death as a direct result of the decedent’s death.166 The Notes on Use following the section state:

While a case in which the "lost chance of recovery" resulting in death is brought in the name of the personal representative of the decedent, damages are to be determined in accordance with elements of damages in a wrongful death case and set forth in § 537.090, RSMo. Likewise, the "survivors" of decedent referred to in this instruction, and from whose perspective damages due to the death are to be determined, are those persons allowed to recover in a wrongful death case as set forth in § 537.080, RSMo.167

These instructions seem to be inconsistent with the Wollen opinion. The court stated that the instructions for loss of a chance would require the jury to find the value of the lost life or limb.168 Furthermore, the court expressly prohibited loss of a chance cases from being brought under Missouri’s wrongful death statute. However, the MAI instructions state that the decedent’s survivors may recover damages allowable under the wrongful death statute.

One of the most important issues Wollen raises is exactly when loss of a chance applies. Will the wrongful death statute apply when the defendant fails to diagnose and treat a preexisting condition? A lawyer confronted with a potential wrongful death or loss of a chance case should evaluate the evidence to determine how the case might be characterized. As Judge Benton points out in Wollen, there are three initial possibilities: first, a circumstance where a cure works in the overwhelming majority of cases; second, a circumstance where a cure fails in the overwhelming majority of cases; and

166. See also 49 J. Mo. B. 232 (1993).
167. Id. at 233.
168. Wollen, 828 S.W.2d at 684 n.2.
third, a circumstance where treatment works in a large number of cases and fails in a large number of cases.\textsuperscript{169}

If the evidence falls into the first possibility, one in which a cure works in the overwhelming majority of cases, the plaintiff will be able to plead with reasonable medical certainty that the defendant’s act or failure to act caused the harm.\textsuperscript{170} Thus, recovery may be allowed under the wrongful death statute.

On the other extreme, if the evidence demonstrates that there is no known cure for the disease and medical science could have at best only extended the decedent’s life a short time, the evidence falls into the second possibility.\textsuperscript{171} The defendant can establish with reasonable medical certainty that the act or failure to act did not cause the harm. Recovery should be denied under both the wrongful death and the survivorship statute.

In the third possibility suggested by Judge Benton, the evidence falls between the first and second possibilities. There is a real chance that the decedent would have lived and a real chance that the decedent would have died even if properly diagnosed.\textsuperscript{172} Because the evidence in this third possibility does not normally involve reasonable medical certainty, it is impossible for an expert to show the effect of the defendant’s act or failure to act.\textsuperscript{173} Thus, recovery might be allowed but reduced under the survivorship statute.

Accordingly, for either the plaintiff or defendant, the magic words appear to be "overwhelming majority of cases." Both sides will optimally want the facts to be cast in these terms. Use of these somewhat artificial verbal distinctions, however, may present practical problems for a court. First, what exactly does "overwhelming" mean? Can a statistic alone be translated to mean overwhelming, and if so, at what point does a statistic become overwhelming? Second, is the definition of overwhelming a question of law, fact, or both? In other words, who decides what overwhelming means? Should the trial judge alone make a legal determination of whether the facts demonstrate an overwhelming cure, should the judge make an initial determination and allow the jury to ultimately decide whether the facts demonstrate an overwhelming cure, or should the jury alone determine whether the cure is indeed overwhelming? Finally, what degree of discretion should be left to the body that defines overwhelming if the case is appealed?

If the evidence does not fall in the first or second possibilities, both sides could further evaluate the evidence in the third possibility to argue that

\textsuperscript{169} Id. at 682.
\textsuperscript{170} Id.
\textsuperscript{171} Id.
\textsuperscript{172} Id.
\textsuperscript{173} Id.
recovery, though possibly allowed but reduced under the survivorship statute, should instead be either allowed in full under the wrongful death statute or denied under both the wrongful death and the survivorship statute.

The evidence could be evaluated in two different areas: the statistical percent chance of survival and the amount of evidence, if any, establishing the decedent's particular chance. At least four different possibilities can be envisioned.

Two possibilities involve the use of statistical evidence only: first, a situation where the statistical chance of survival is less than fifty percent; and second, a situation where the statistical chance of survival is greater than fifty percent. In both possibilities, the statistical inference between the act or failure to act and death involves a "speculative leap of faith." 174

Judge Benton presented these first two possibilities in *Wollen* and found that neither would be allowed under the wrongful death statute. Regardless of whether the loss chance of survival is less than or greater than fifty percent, "statistical evidence—without more—does not give a jury a basis to believe that the decedent belongs to either the group that lives, or the group that dies." 175 As long as the plaintiff can present a statistic in which the lost chance of survival is sizeable enough to be material, however, these actions will survive a motion to dismiss if filed under the survivorship statute. 176

The remaining two possibilities involve more than statistical evidence, regardless of the statistical chance of survival. The evidence in these possibilities establishes with reasonable medical certainty that the decedent would have been in either the group that lives or the group that dies. In the first possibility, the plaintiff might argue that recovery should be allowed in full under the wrongful death statute. In the second possibility, the defendant might argue that recovery should be denied under both the wrongful death and the survivorship statute. Either side must present an additional quantum of evidence, beyond a mere statistic, that demonstrates a logical rather than speculative inference between the act or failure to act and death.

The difficulty in these remaining two possibilities will be producing evidence establishing with reasonable medical certainty that the decedent would have been in the group that lives or dies. A lawyer may want to gather additional evidence that the decedent shared distinguishing characteristics with a particular group, thus making the decedent more likely to live or die. As with the overwhelming majority of cases standard, production of this additional evidence could present problems for the court. When will the evidence establish with reasonable medical certainty that the decedent would have been in a particular group, and who will decide this question? What if

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174. Id. at 685.
175. Id. at 686 (emphasis added).
176. Id.
both sides produce equally convincing statistical evidence? One can imagine a statistical battle leaving the fact-finder in complete confusion. Nevertheless, allowing the use of statistics in these medical malpractice cases seems to more closely match what Judge Benton described as the "maybe" aspect of everyday life. 177

VI. CONCLUSION

Examination of the loss of a chance doctrine reveals much disagreement among the courts. Both proponents and opponents of loss of a chance seem to point out equally plausible reasons why the doctrine should or should not be adopted. Finding the "right" method to argue and decide these cases is extremely difficult.

Judge Levin of the Supreme Court of Michigan writes in *Falcon v. Memorial Hospital* that the standards of causation are "analytic devices—tools to be used in making causation judgments. They do not and cannot yield ultimate truth. Absolute certainty in matters of causation is a rarity." 178 After noting the welter of confusion regarding causation, Prosser and Keeton point out the concept of cause "is associated with policy—with our more or less inadequately expressed ideas of what justice demands." 179 The wisdom of these jurists should not be forgotten when examining the doctrine of loss of a chance.

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177. *Id.* at 684.