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DUTY-PRESERVING TORT RULES AS AN “OLD CATEGORY” FOR JUSTIFYING THE LOSS-OF-CHANCE DOCTRINE IN MEDICAL MALPRACTICE CASES

Mark A. Geistfeld*

The loss-of-chance doctrine paradigmatically applies to wrongful-death cases in which a physician commits malpractice and seeks to avoid liability on the causal ground that the patient probably would have died anyway from the preexisting medical condition, even if it had been treated properly. By rejecting this argument and permitting recovery in these cases, courts purportedly have either relaxed the plaintiff’s ordinary burden of proving causation or otherwise redefined the compensable harm as the patient’s lost chance of survival rather than the wrongful death. Either modification of ordinary tort principles could have profound effects that extend well beyond the context of medical malpractice.

The loss-of-chance doctrine has divided courts across the country, with about half of the states rejecting, deferring, or not yet addressing it. This halting development suggests that it might be useful to consider whether the doctrine can be justified by “old categories” of tort law based on established principles.

In other contexts, courts have adopted special rules to preserve the tort duty. Courts can rely on this “old category” to justify the loss-of-chance doctrine. For preexisting conditions that probably cannot be cured, a negligent physician could always avoid liability by invoking this exculpatory causal evidence, which in turn would negate the duty for the entire category of cases the duty governs. To preserve the duty, courts must preclude malpractice defendants from using such a preexisting condition to defeat liability.

Once this exculpatory causal evidence is excluded from the liability phase of the case, the plaintiff can show with the remaining evidence that the physician’s malpractice, more likely than not, caused the wrongful death. The extent to which the patient’s preexisting condition had already

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reduced her life expectancy instead factors into the damages award, because the ordinary measure of compensatory damages for wrongful death (or any permanent injury) depends on the patient's life expectancy at the time of the malpractice. The negligent physician accordingly incurs liability only for the extent to which the malpractice caused the patient to lose the remaining chance of surviving to a normal life expectancy—the same measure of damages courts have adopted in the loss-of-chance cases. Instead of profoundly modifying tort law, loss of chance can be justified by established principles.

INTRODUCTION

In medical malpractice cases, courts often confront a difficult causal problem. An illustrative case involves a patient who died from an advanced form of cancer. With proper treatment, the patient would have had a 40% chance of survival, but he lost that chance because the physician negligently misdiagnosed the disease. In a malpractice suit seeking compensation for the patient's wrongful death, the plaintiff apparently faced an insurmountable burden of proving causation: more likely than not, the cancer killed the patient (60% likelihood) and not the malpractice (the 40% lost chance of survival). Insofar as the ordinary, more-likely-than-not evidentiary standard would bar recovery for malpractice in these cases, an entire category of very sick patients—those with preexisting conditions that probably cannot be cured—would not be protected by the tort duty at a time when their need for competent care is vitally important. In a case largely based on these facts, the Massachusetts Supreme Court permitted recovery under the loss-of-chance doctrine.¹

Whether recovery ought to be permitted in this type of case has divided courts across the country.² “Although nearly all the states have now considered the loss of chance doctrine, there is not a clear

1. *Matsuyama v. Birnbaum*, 890 N.E.2d 819, 828 (Mass. 2008) (permitting recovery when the plaintiff's decedent had a 37.5% chance of survival which the malpractice reduced to 0–5%), *overruled on other grounds*, *Doull v. Foster*, 163 N.E.3d 976 (Mass. 2021).

2. For a comprehensive survey of how the doctrine has fared across the country, see Lauren Guest, David Schap & Thi Tran, *The “Loss of Chance” Rule as a Special Category of Damages in Medical Malpractice: A State-by-State Analysis*, 21 J. LEGAL ECON. 53, 55 (2015) (finding “that 24 states have adopted some version of the ‘loss of chance’ rule, 17 have rejected it, four have deferred ruling on the doctrine, and five have yet to address the matter.”). The outcomes in each of the states is provided at tbl.1, *id.* at 59. Two of the jurisdictions that had not yet considered the doctrine as of 2015 have since done so. See *Estate of Frey v. Mastroianni*, 463 P.3d 1197, 1211 (Haw. 2020) (deciding not to adopt the loss-of-chance doctrine because the concept can be folded into the existing substantial-factor test for proving causation); *Parkes v. Hermann*, 852 S.E.2d 322, 325–26 (N.C. 2020) (holding that it is up to the legislature to determine whether the loss-of-chance doctrine should be adopted).

consensus on its merit; nor, among those states that have adopted it, is there agreement on what form it should take.”³

There are at least two different versions of the doctrine.⁴ Under one approach, “courts permit[] the jury to find causation and make an award for the whole of the loss, disregarding the fact that the patient was likely to die even if the physician had not been negligent.”⁵ The second, more commonly utilized method of implementing the loss-of-chance doctrine, “recognizes that the defendant may not have caused death, but he caused the loss of the plaintiff’s chance to live. . . . The idea is that the plaintiff’s chance of survival itself has value for which compensation is due.”⁶ As applied to the prior example, the physician’s malpractice more likely than not caused the patient to lose the 40% chance of surviving the cancer, yielding a compensatory damages award of 40% of the full amount of damages the plaintiff would otherwise receive for the patient’s premature death in an ordinary case of wrongful death.⁷

The case law has fractured along these lines for an evident reason: neither courts nor commentators have persuasively justified the doctrine in the first instance, which in turn has produced alternative formulations of the liability rule. Each formulation begs important questions and lacks a limiting principle for defensibly cabining this form of liability, which in turn has led other courts to reject the doctrine entirely.

The first version of the loss-of-chance doctrine relaxes the plaintiff’s burden of proving causation for policy reasons. If physicians were never liable for malpractice when treating patients with preexisting conditions that probably cannot be cured, then tort law would not deter these forms of malpractice or provide any compensation to the injured parties.⁸

This rationale, however, begs an important question. Why don’t these same compensation and deterrence concerns justify relaxing the

3. *Estate of Frey*, 463 P.3d at 1209.

4. Hawaii has adopted what the court characterized as a “third approach” of incorporating loss of chance into the substantial-factor test for causation. *Id.* at 1200, 1210–12. This approach, however, is not substantively different from the one that relaxes the plaintiff’s burden of proving causation by a preponderance of the evidence. *Cf. id.* at 1210 (“[W]e do not have a tradition of requiring plaintiffs to prove that their harm was more likely than not the result of negligence by the defendant. Rather, since the earliest days of statehood, we have required plaintiffs to prove that the defendant’s negligence was a substantial factor in bringing about their harm.”).

5. DAN B. DOBBS, PAUL T. HAYDEN & ELLEN M. BUBLICK, *THE LAW OF TORTS* § 196 (2d ed. & May 2023 update).

6. *Id.*

7. *Matsuyama v. Birnbaum*, 890 N.E.2d 819, 838–41 (Mass. 2008), *overruled on other grounds*, *Doull v. Foster*, 163 N.E.3d 976 (Mass. 2021).

8. *See id.* at 830 (identifying these concerns with the “all or nothing” rule based on the more-likely-than-not evidentiary standard and providing extensive citation to courts and commentators who have voiced these concerns).

burden of proof for other cases in which a negligent actor might have caused the injury, but the plaintiff cannot prove as much under the ordinary evidentiary standard? Unable to discern a defensible limiting principle, one court rejected the loss-of-chance doctrine, reasoning that “[i]t would . . . reduce the standard of causation to a mere possibility rather than a preponderance of the evidence,” which “would create unwarranted liability in other cases and other medical contexts.”⁹

There is also no evident limiting principle for the second version of the doctrine, which does not relax the plaintiff’s burden of proving causation but instead redefines the compensable harm as the lost chance of survival.¹⁰ The problem with this formulation is that *any* risk of harm can be reframed as a lost chance of avoiding the injury.¹¹ For example, if a negligent defendant imposed a 10% risk of injury on the plaintiff, then the defendant deprived the plaintiff of a 10% chance of avoiding such harm. Does this equivalence imply that *any* plaintiff who has been exposed to a tortious risk can recover for the lost chance of avoiding the threatened harm? Without a defensible limiting principle, “how does an appellate court avoid application of the loss-of-chance doctrine in other areas of the law, beyond medical malpractice?”¹²

For these reasons, development of the loss-of-chance doctrine “has been halting, as courts have sought to find appropriate limits for this reconceptualization of legally cognizable harm. Without limits, this reform is of potentially enormous scope, implicating a large swath of tortious conduct in which there is uncertainty about factual cause”¹³

In evaluating the evolving jurisprudence of this doctrine, it is helpful to consider an observation Judge Guido Calabresi made about tort litigation in another context:

In cases that are dramatic and involve “hot” issues, there is a tendency for the parties to describe themselves as raising new issues that are remarkable in their legal context. But in fact, such cases are usually best looked at in the most traditional of ways. Courts must see how these cases fit into old categories before considering whether it is

9. *Cohan v. Med. Imaging Consultants, P.C.*, 900 N.W.2d 732, 741 (Neb. 2017).

10. *See, e.g., Perez v. Las Vegas Med. Ctr.*, 805 P.2d 589, 592 (Nev. 1991) (“By defining the injury as the loss of chance . . . the traditional rule of preponderance is fully satisfied.”).

11. David A. Fischer, *Tort Recovery for Loss of a Chance*, 36 WAKE FOREST L. REV. 605, 606 (2001); *see also, e.g., Alberts v. Schultz*, 975 P.2d 1279, 1283 (N.M. 1999) (“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.”).

12. *Cohan*, 900 N.W.2d at 741–42.

13. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 26 cmt. n (AM. L. INST. 2010).

either necessary or proper to expand those old categories or to create new ones.¹⁴

Medical malpractice claims for loss of chance are hot cases that would seem to raise fundamental questions about the nature of tort liability. Under what conditions, if any, can tort law justifiably reduce the plaintiff's burden of proving causation in order to permit recovery against a negligent defendant? Can a causal problem of this type be fairly resolved by redefining the compensable harm from the physical injury itself to a lost chance of avoiding that injury? By framing the debate in these remarkable terms, courts and scholars have not seriously considered whether there is a more traditional way to justify the loss-of-chance doctrine. Can loss of chance be "fit into old categories"?

Pursuing this interpretive strategy has evident appeal. If the doctrine does not necessarily entail a substantial (radical?) departure from traditional tort doctrines involving either the burden of proof or the nature of compensable harm, courts that have rejected the doctrine may be more amenable to adopting it.

For example, the North Carolina Supreme Court recently decided that only the legislature could adopt the doctrine because it "would require a departure from our common law on proximate causation and damages."¹⁵ Relatedly, the Maryland Court of Appeals recently affirmed its prior decision to reject the loss-of-chance doctrine because doing so is not "clearly wrong and contrary to established principles nor has there been a showing that the precedent has been superseded by significant changes in the law or facts."¹⁶

Unpersuaded by the existing rationales, courts like these will adopt the loss-of-chance doctrine only if it can be grounded in established tort principles. Courts of this type—those that have either rejected, deferred, or not yet considered the doctrine—could represent nearly half of the states according to one count.¹⁷ The future of the loss-of-chance doctrine may critically depend upon whether it can be "fit into old categories" as Calabresi put it.

As I will try to demonstrate, established tort principles can justify the loss-of-chance doctrine, a rationale that is immanent in the case law and commentary but not yet clearly specified. Unlike the existing rationales for the doctrine, this one relies on the ordinary burden of proof showing

14. *McCarthy v. Olin Corp.*, 119 F.3d 148, 161 (2d Cir. 1997) (Calabresi, J., dissenting) (citation omitted).

15. *Parkes v. Hermann*, 852 S.E.2d 322, 325–26 (N.C. 2020).

16. *Wadsworth v. Sharma*, 278 A.3d 1269, 1284 (Md. 2022) (internal quotations and citations omitted).

17. By one count (as of 2015), twenty-six states have either rejected, deferred, or not yet considered the doctrine. *See supra* note 2.

that the malpractice caused the wrongful death or other type of permanent bodily injury. The argument proceeds in three parts.

Part I begins with the self-evident proposition that the substantive nature of a physician's tort obligation is to provide patients—no matter how sick—with professionally competent treatment for the health condition in question. If a negligent physician could avoid malpractice liability on the ground that the patient's preexisting condition probably could not have been cured even if treated competently, that type of exculpatory causal evidence would necessarily have the effect of negating liability in *all* cases the duty governs, thereby negating the duty itself. In other contexts, courts have adopted special rules to preserve the duty. As applied in the loss-of-chance cases, this "old category" justifies a special evidentiary rule preventing negligent physicians from invoking their patients' preexisting conditions to avoid legal responsibility for their incompetent treatment of those conditions when causal evidence of that type would negate their duty to competently treat those conditions.

Once this exculpatory causal evidence is excluded from the liability phase of the case, the remaining evidence shows that the physician's malpractice, more likely than not, caused the bodily injury in question, such as wrongful death. The plaintiff's burden of proving causation is not relaxed as applied to this restricted set of evidence, subjecting the negligent physician to liability for the patient's bodily injury and not merely the loss of chance.

The inquiry then moves into the damages phase of the case, at which point the preexisting condition becomes a relevant factor in calculating compensatory damages for the bodily injury. Part II shows why the traditional measure of compensatory damages for a permanent injury such as wrongful death is discounted by the patient's life expectancy at the time of the malpractice, producing the same damage awards as the loss-of-chance doctrine. Consequently, loss of chance can be formulated as a liability rule that does not alter ordinary tort principles but instead preserves the duty by preventing a negligent physician from relying on the patient's preexisting condition as exculpatory causal evidence.

Part III then extends the analysis to cases in which the malpractice only reduces but does not eliminate the chance of survival (or cure more generally). In these cases, the different rationales for the loss-of-chance doctrine justify different damage measures. The duty-preserving formulation of the doctrine compensates for the wrongful death and not for the lost chance, generating the same damage awards as the majority rule for determining loss-of-chance damages. This damages measure is not appropriate, however, if the compensable harm in the liability phase of

the case is the lost chance or risk of injury rather than the bodily injury itself. To determine how loss-of-chance damages should be measured in cases of this type, courts will need to choose between these two different formulations of the doctrine.

None of this reasoning shows that the duty-preserving formulation of the doctrine is more justifiable than the alternatives. But unlike the other formulations that have no evident limiting principles, the duty-preserving rationale for the loss-of-chance doctrine is based on traditional tort principles applied to the substantive nature of the tort duty in medical malpractice cases.

I. THE LOSS-OF-CHANCE DOCTRINE AS A DUTY-PRESERVING RULE

In explaining why the loss-of-chance doctrine is well suited for medical malpractice cases, the Restatement (Third) of Torts observes that “a contractual relationship exists between the patient and physician (or physician’s employer), in which the *raison d’être* of the contract is that the physician will take every reasonable measure to obtain an optimal outcome for the patient.”¹⁸ This observation effectively restates the reasoning courts have employed to justify this liability rule. For example, in a leading case that adopted the doctrine, the court emphasized the nature of the physician’s duty: “A patient goes to a physician precisely to improve his opportunities of avoiding, ameliorating, or reducing physical harm of pain and suffering. . . . That is what physicians undertake to do.”¹⁹

The nature of this obligation has implications for the types of evidence that are relevant for proving causation in cases of medical malpractice. Having voluntarily undertaken the obligation to competently treat a patient’s preexisting health condition, the physician cannot then rely on that condition to wholly negate the associated tort duty to competently treat it. Yet that is what a physician attempts to do when seeking to avoid malpractice liability on the ground that the preexisting condition probably would have killed the patient anyway. The loss-of-chance doctrine prevents a physician from always avoiding responsibility for malpractice on this basis, making it possible to justify the doctrine as a tort rule that preserves the physician’s duty to provide professionally competent treatment for preexisting conditions that probably cannot be cured.

18. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 26 cmt. n (Am L. INST. 2010).

19. *Falcon v. Memorial Hosp.*, 462 N.W.2d 44, 52 (Mich. 1990).

A. *Preexisting Conditions and the Negation of Duty*

According to the Restatement (Third) of Torts, “when liability depends on factors applicable to categories of actors or patterns of conduct, the appropriate rubric is duty,” which is based on “relatively clear, categorical, bright-line rules of law applicable to a general class of cases.”²⁰ The categorical properties of a duty imply that its breach must give rise to liability in at least one case within the category. Without any liability across the entire category of cases the duty governs, the duty would not exist—it would not embody any legally enforceable obligation “applicable to a general class of cases.”

For an important category of malpractice cases, a physician’s tort duty could be effectively negated by a patient’s preexisting health condition, which is a shorthand for the “presenting problem” or the “illness, disorder, discomfort, pain, fear, etc. that is the main reason for the patient’s seeking medical help.”²¹ Consider again a physician whose malpractice eliminates a patient’s 40% chance of surviving an advanced form of cancer. By seeking to avoid liability on the ground that the preexisting condition (the 60% likelihood of no cure) is the most probable cause of the patient’s death, the physician is relying on the preexisting condition to wholly negate the duty to provide professionally competent care. For this particular patient with respect to this particular condition, the negligent physician could always invoke this same argument to avoid malpractice liability. The entire category of cases the duty governs—the varied ways and myriad circumstances in which the physician might treat this particular patient for this particular condition—would not contain a single instance of liability. The duty running between the physician and patient could not be legally enforced in any case the duty governs, rendering it a nullity.

Only certain types of preexisting conditions have this duty-negating property. For those conditions that probably can be cured, a physician’s malpractice, more likely than not, could be the reason why the patient was not cured. In that event, the physician would incur malpractice liability in at least one case the duty governs.

The relevant duty, however, is not defined in relation to all the different types of treatment a physician could provide to all types of patients with respect to all types of health conditions. The duty is more narrowly defined in relation to this particular patient for the treatment of this

20. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 7 cmt. a (AM L. INST. 2010).

21. *Alberts v. Schultz*, 975 P.2d 1279, 1282 (N.M. 1999) (quoting 5 J.E. SCHMIDT, ATTORNEYS’ DICTIONARY OF MED. 426 (1998)).

particular condition.²² Consequently, if the preexisting condition probably cannot be cured even if properly treated, this property could negate the physician's duty with respect to that condition, even though the physician could incur malpractice liability in other cases involving other patients with other conditions.

The negation of the duty, moreover, is not limited to this particular patient or physician. The category of cases can be expanded to include *all* patients with *any* preexisting condition that probably cannot be cured. The physician in each one of these cases can argue that the preexisting condition, more likely than not, caused the harm. For this important category of cases, there would *never* be malpractice liability if a negligent physician could avoid legal responsibility for the adverse health outcome by relying on the serious nature of the preexisting condition itself, such as cancer that probably would have killed the patient even if properly treated.

An argument that implicitly denies liability in all cases the duty governs is tantamount to the denial that the physician is legally obligated to exercise reasonable care when treating patients of this type. As one court put it, a liability rule formulated in this manner provides a "blanket release from liability for doctors and hospitals any time there was less than a 50 percent chance of survival, regardless of how flagrant the negligence."²³ A blanket release is nothing other than a categorical limitation of liability in *all* cases under *all* conditions, "regardless of how flagrant the negligence," which means there is *no* duty for the general category of cases involving patients with preexisting conditions of this type.

Of course, courts could insist that there still is a duty as a formal matter in the loss-of-chance cases, even if it is never legally enforceable. The question-begging nature of an unenforceable duty is unmasked by the "ancient and venerable" principle that "rights must have remedies," which has "played an important role in English and American legal history."²⁴ The right to a remedy "expressly or implicitly appears in forty state constitutions."²⁵ By definition, a right that by its nature can never be legally enforced does not have a remedy.

22. *Cf. id.* ("Generally, the fact pattern in a lost-chance claim begins when a patient comes to a health giver with a particular medical complaint.").

23. *Herskovitz v. Group Health Coop. of Puget Sound*, 664 P.2d 474, 477 (Wash. 1983).

24. Donald H. Zeigler, *Rights, Rights of Action, and Remedies: An Integrated Approach*, 76 WASH. L. REV. 67, 71 (2001).

25. Thomas R. Phillips, *The Constitutional Right to a Remedy*, 78 N.Y.U. L. REV. 1309, 1310 (2003) (footnote omitted).

To be clear, the right to a remedy does not guarantee “effective redress for *all* invasions of legally protected rights and interests.”²⁶ However, it is a separate question whether the right to a remedy requires effective redress for at least *one* invasion of the legally protected interest. Having declared that such a right exists, courts presumably must ensure that it has a remedy in at least one case.

For any right that in fact is never legally enforceable and provides no remedy within the entire category of cases to which the right and its correlative duty apply, courts would be on firmer ground by instead adopting a blanket immunity for the conduct in question. An immunity eliminates both the right and correlative duty and therefore does not beg the question whether courts can recognize a right based on an unenforceable duty.²⁷

Wholesale elimination of the right and correlative duty would be very hard to justify, signifying a relationship in which the physician effectively says to the patient: “You are so sick it probably doesn’t matter what I do, so there is no reason for me to be careful.” That is not the nature of the undertaking. Having accepted responsibility for treating the preexisting condition in a professionally competent manner, the physician cannot then use that condition in a manner that would eliminate the duty and the physician’s associated responsibility for treating it. As one court explained, “[t]he physician must take the patient as presented to her and cannot blame the patient for the preexisting condition or disease for which the plaintiff has sought treatment.”²⁸

B. *Duty-Preserving Tort Rules*

Courts presumably want to recognize a patient’s tort right and the physician’s correlative duty to provide professionally competent treatment. In order for the duty to govern the treatment of preexisting conditions that probably cannot be cured, there must be at least one instance of potential liability within the entire category of cases the duty governs.

The loss-of-chance doctrine solves this problem by preventing a physician from relying on the patient’s preexisting condition to avoid liability on the causal ground that the condition probably could not have been cured anyway. Unable to rely on this exculpatory causal evidence, a physician who commits malpractice can incur liability under

26. Richard H. Fallon, Jr. & Daniel J. Meltzer, *New Law, Non-Retroactivity, and Constitutional Remedies*, 104 HARV. L. REV. 1731, 1780 (1991) (emphasis added).

27. *Cf. id.* at 1780–81 (observing that the right to a remedy has historically co-existed with the common-law doctrines of charitable immunity and sovereign immunity).

28. *Komlodi v. Picciano*, 89 A.3d 1234, 1250 (N.J. 2014).

the loss-of-chance doctrine, thereby preserving the duty for preexisting conditions of this type.

In other contexts, courts have adopted duty-preserving tort rules, providing ample doctrinal support for doing so in the loss-of-chance cases. For example, the ordinary or general duty to exercise reasonable care is limited to physical harms—bodily injury or damage to real or tangible property.²⁹ Courts recognize exceptions and reformulate the duty to encompass certain types of pure economic loss or stand-alone emotional harms.³⁰ Though not expressly denominated as such, many of these tort rules eliminate the physical-harm requirement in order to preserve the underlying duty.

Consider forms of professional malpractice outside of the medical context. “An actor has no general duty to avoid the unintentional infliction of economic loss on another.”³¹ However, in cases of accountant or legal malpractice, courts alter the duty and permit recovery for pure economic losses.³² Doing so is necessary to preserve the tort duty running between these professionals and their clients.

Neither accountant nor legal malpractice foreseeably threatens anyone with physical harm. In the accountant cases, the only foreseeable harms involve the economic losses a botched audit might cause, such as bad investment decisions. Similarly, incompetent legal services do not cause physical harms; they only foreseeably cause the economic costs of losing a law suit or failing to procure the economic benefits of a properly drafted contract or will. A duty limited to foreseeable physical harms would never be subject to liability across the two categories of cases these two duties respectively govern. To preserve the tort duties accountants and lawyers owe to their clients, courts adopted an exception to the physical-harm requirement and reformulated the duty to encompass foreseeable economic losses.

Similarly, courts have adopted duty-preserving rules that permit recovery for stand-alone emotional distress in certain kinds of negligence cases. Ordinarily, a negligent actor owes no duty to someone who suffers pure emotional distress as a consequence of the tortious conduct, unless it “places the other in danger of immediate bodily harm

29. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 5 (AM. L. INST. 2010) (recognizing the general duty regarding physical harms); *id.* § 4 (defining physical harm).

30. Dobbs et al., *supra* note 5, § 3 (“Legal rules give the greatest protection to physical security of persons and property. . . . When it comes to intangible harm without physical interference or physical harm, courts are much more reluctant to impose tort liability. . . . Very similar statements can be made about pure economic harm, that is, pocketbook harms that do not result from physical interference with person or property.”).

31. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR ECON. HARM § 1 (AM. L. INST. 2020).

32. *Id.* § 4.

and the emotional harm results from the danger.”³³ Courts will expand the duty beyond this “zone of danger” to encompass stand-alone emotional distress only in very limited circumstances.³⁴ “Specifically, courts have imposed liability on hospitals and funeral homes for negligently mishandling a corpse and on telegraph companies for negligently mistranscribing or misdirecting a telegram that informs the recipient, erroneously, about the death of a loved one.”³⁵ These two exceptional formulations of the liability rule, though not expressly denominated as such, are necessary to preserve the duty requiring hospitals and funeral homes to exercise reasonable care when handling corpses or sending messages to recipients about a loved one’s death.

Although anyone would be understandably upset by such unreasonable misconduct, no one is directly threatened with bodily injury when a corpse is mishandled or a telegram is not properly transcribed. If the duty were limited to those who suffer foreseeable physical harm or are otherwise immediately threatened with bodily injury, it would be essentially negated when applied to the categories of mishandled corpses or mistranscribed telegrams. To preserve the duty to exercise reasonable care across the cases in these two categories, courts had to alter the ordinary duty to permit recovery for these forms of pure emotional distress.

In a different context, courts have altered the traditional damages rule requiring proof of actual harm in order to preserve the predicate tort duty. For trespass on land, courts will presume nominal damages if the plaintiff cannot prove actual harm.³⁶ This tort protects the right-holder’s interest in exclusive possession of land, obligating others to gain the right-holder’s consent before entering the property.³⁷ Requiring proof of actual harm would render the duty unenforceable for the important category of cases in which someone can easily trespass without causing actual harm. To preserve the duty that one should not trespass on another’s land no matter how stealthily or carefully done, the tort of trespass on land eliminates the ordinary requirement that the prima facie case for liability requires proof of compensable harm.

Of course, a nominal damages award is not enough to prevent someone from trespassing. But an award of compensatory damages, even if de minimis, enables the court to grant the additional remedies of punitive damages or injunctive relief, each of which will either deter or prohibit

33. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 47(a) (AM L. INST. 2012).

34. *Id.* § 47(b).

35. *Id.* cmt. b.

36. RESTATEMENT (SECOND) OF TORTS § 163 (AM L. INST. 1965).

37. *Id.* cmt. d.

trespasses of this general type.³⁸ This duty-preserving rationale is not applicable to the otherwise analogous tort of trespass to chattels, which requires proof that the dispossession actually harmed the plaintiff.³⁹

When confronted by a similar need to preserve a manufacturer's tort duty governing reasonably safe product design, courts recognized that they had to limit the affirmative defense of contributory negligence. While using a power saw, for example, a consumer can carelessly get her hand caught in the moving blade, a foreseeable misuse that also constitutes contributory negligence. Because the misuse is foreseeable, the manufacturer incurs a tort obligation to incorporate a cost-effective guard into the design of the tool that would protect consumers from these injuries. But when strict products liability was first adopted in the mid-1960s, "the overwhelming majority rule treated contributory negligence as a total bar to recovery."⁴⁰ A complete bar to recovery in all cases of foreseeable misuse would wholly negate the manufacturer's duty to adopt reasonably safe product designs for reducing such risks. Consequently, courts "narrow[ed] the applicability of contributory negligence" from its ordinary formulation to permit recovery in these cases.⁴¹ As one court explained, "[i]t would be anomalous to hold that defendant has a duty to install safety devices but a breach of that duty results in no liability for the very injury the duty was meant to protect against."⁴²

For these same reasons, the categorical nature of a physician's substantive tort obligation prevents a negligent physician from relying on the preexisting condition to avoid liability in all cases involving patients with particularly severe conditions that probably cannot be cured. It would be anomalous or inconsistent to hold that a defendant physician has a duty to provide reasonably competent medical care for a preexisting condition when a breach of that duty never results in liability for the very injury the duty was meant to protect against. The substantive properties of a duty imply that courts must prevent a negligent physician

38. See *Intel Corp. v. Hamidi*, 71 P.3d 296, 303 (Cal. 2003) (requiring proof of compensable harm for injunctive relief); *Jacque v. Steenberg Homes, Inc.*, 563 N.W.2d 154, 156 (Wis. 1997) (upholding a substantial punitive award as a means of preventing the defendant trespasser from using compensatory damages to purchase an easement).

39. Unlike land or real property more generally, possessors can move their chattels. Consequently, possessors can ordinarily protect their chattels against ongoing or threatened interferences in a very simple way: They can always move the chattel to somewhere else such as their home, where it is protected by the tort of trespass on land. Given the effectiveness of this easy self-help remedy, tort law can adequately protect the individual right to exclusive possession of chattels by limiting liability to cases in which the trespass causes actual harm. For more extensive discussion, see MARK A. GEISTFELD, *TORT LAW: THE ESSENTIALS* 130–33 (2008).

40. RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 17 cmt. a (AM. L. INST. 1998).

41. *Id.*

42. *Bexiga v. Havir Mfg. Corp.*, 290 A.2d 281, 286 (N.J. 1972).

from using exculpatory evidence in a particular case that would effectively negate the duty by necessarily foreclosing liability in all cases the duty governs.

The evidence in these cases shows that either the preexisting condition or the malpractice caused the patient's premature death, but the tort duty forecloses the physician from relying on the preexisting condition to avoid responsibility for its treatment. The only remaining evidence shows that the malpractice is the legal cause of the premature death, enabling the plaintiff to recover under the ordinary evidentiary standard. So conceptualized, the loss-of-chance doctrine does not create a "distinct cause of action" as courts repeatedly emphasize.⁴³

The logic of a duty-preserving evidentiary rule straightforwardly justifies the version of the loss-of-chance doctrine that "permits the jury to find causation and make an award for the whole of the loss, disregarding the fact that the patient was likely to die even if the physician had not been negligent."⁴⁴ When formulated as a duty-preserving rule, however, the doctrine does not relax the plaintiff's ordinary burden of proof but instead prevents the physician from relying on exculpatory causal evidence that would negate the duty.

The duty-preserving rationale for the loss-of-chance doctrine does not prevent a negligent physician from relying on the preexisting condition in the damages phase of the case. At this point, the question is not whether the defendant physician is liable for the wrongful death; the inquiry instead seeks to determine the appropriate compensatory award for "the whole of the loss." If this determination yields a damages award based on the patient's lost chance of survival, then the duty-preserving formulation of the liability rule also implements the second version of the loss-of-chance doctrine based on the "idea . . . that the plaintiff's chance of survival itself has value for which compensation is due."⁴⁵ To evaluate this possibility, we need to understand how mortality risks factor into a compensatory damages award for physical harm.

II. MORTALITY RISKS AND COMPENSATORY DAMAGES

Having established malpractice liability, the plaintiff must then prove the amount of damages the wrongful death proximately caused. Once the loss-of-chance doctrine is reframed as a damages question—the

43. See, e.g., *Christian v. Tohmeh*, 366 P.3d 16, 27 (Wash. Ct. App. 2015) ("Washington, in line with other jurisdictions, recognizes a lost chance claim, a tweaked version of a medical malpractice cause of action. A lost chance claim is not a distinct cause of action but an analysis within, a theory contained by, or a form of a medical malpractice cause of action.").

44. *DOBBS ET AL.*, *supra* note 5, § 196.

45. *Id.*

outcome attained by the duty-preserving rationale for the doctrine developed in Part I—traditional measures of valuing tort damages yield the same recovery the lost-chance doctrine provides.⁴⁶

A. *Compensatory Damages for Permanent Injuries*

In wrongful-death cases, compensatory damages depend on the decedent's life expectancy at the time of the wrongful death.⁴⁷ The same principle applies in ordinary tort cases involving permanent bodily injuries that will proximately cause future compensable harms.⁴⁸ All else being equal, the damages compensating a ninety-year-old victim for permanent injuries will be significantly less than those for a fifty-year-old victim, which in turn will be significantly less than for a

46. See *Doll v. Brown*, 75 F.3d 1200, 1205–06 (7th Cir. 1996) (analyzing the loss-of-chance doctrine as “an extension of the routine practice in tort cases involving disabling injuries of discounting lost future earnings by the probability that the plaintiff would have been alive and working in each of the years for which damages are sought.”); Fischer, *supra* note 11, at 609 (“Courts often award damages for the risk of future harm by discounting the recovery for the harm by the chance that the harm will not occur. Such damages are, in effect, compensation for the loss of a chance to avoid future harm.”).

47. The tort cause of action is based on a wrongful-death statute that specifies the available damages. The “traditional” statutes limited recovery to the “pecuniary harm of the survivors,” which is a “future loss.” DOBBS ET AL., *supra* note 5, § 374. Consequently, “if support could be expected during the decedent’s entire working life, then evidence of the decedent’s life expectancy or working life expectancy can be presented.” *Id.* See also, e.g., Kurt V. Krueger, John Ward & Gary R. Albrecht, *The Present Value of Lost Financial Support Due to Wrongful Death*, 15 J. LEGAL ECON. 35, 37 (2008) (calculating wrongful-death damages based on “the decedent’s expected normal survival”). Due to the compensatory limitations of the traditional wrongful-death statute, many jurisdictions also permit designated claimants like a spouse to recover nonpecuniary damages such as the loss of companionship or consortium stemming from the decedent’s wrongful death. *Id.* § 375. The extent of these harms also depends on how long the decedent was expected to live.

48. See, e.g., *Downie v. U.S. Lines Co.*, 359 F.2d 344, 347 (3d Cir. 1966) (“Damages resulting from the impairment of earning capacity and the probable loss of earnings must be measured on the basis of life expectancy at the time of [a permanent] injury. . . . The injured [plaintiff] is also entitled to compensation, again based on life expectancy at the time of injury, for the physical and mental effects of the injury on his ability to engage in those activities which normally contribute to the enjoyment of life, including, for example, his avocations.”); DOBBS ET AL., *supra* note 5, § 479 (“In calculating lost earnings, the parties generally present projections taking into account factors such as the injured party’s age, education, and job status. Calculations traditionally take into account life expectancy and expected earnings. Mortality tables are often admitted for this purpose.”); *id.* § 482 (“When the plaintiff claims that she will suffer losses in the future, she must prove by a preponderance of the evidence that those losses will in fact be incurred in the future. She must also prove duration. If she will endure pain for the rest of her life, the trier must have some basis for estimating her life expectancy.”); Annotation, *Admissibility of mortality tables in personal injury action as dependent upon showing of permanency of injury*, 50 A.L.R.2d 419, § 1 (1956 & Supp. 2018) (“In personal injury actions the life expectancy of the injured party frequently is relevant upon some aspect of the measure of damages. In order to show such life expectancy, various tables have been compiled, known as mortality tables, which show how long a person of a given age could be expected to live if he lives as long as the average of the group who were used in the compilation of the tables.”).

twenty-year-old victim. The amount of time someone is likely to suffer a permanent injury — that is, the individual's life expectancy — determines the amount of harm requiring tort compensation.

The logic of the damages calculation is starkly illustrated by a well-known negligence case that does not depend on the loss-of-chance doctrine. In *Dillon v. Twin State Gas & Electric Co.*,⁴⁹ the decedent was a fourteen-year-old boy who was sitting on a girder nineteen feet above a bridge when he lost his balance, causing him to fall and then grab hold of defendant utility's uninsulated wire which electrocuted him. In the wrongful-death suit, the court held that if the jury were to find that the boy would have fallen to his death anyway, and did not consciously suffer from the electrical shock before dying, "the defendant would not be liable" for having negligently left the wire uninsulated because the negligence "deprived him, not of a normal life expectancy, but of one too short to be given pecuniary allowance."⁵⁰ Under those conditions, the decedent's lost chance of survival would be insignificant and therefore not a compensable harm.

As this damages principle establishes, any mortality risks specific to the decedent determine compensatory damages in ordinary wrongful-death cases. Consequently, "[w]hen the opposing side believes that the person in question, because of poor health, has a lower life expectancy than that reflected in the mortality tables, the usual remedy is to offer evidence to that effect and argue the point to the jury."⁵¹ So, too, courts have recognized that "evidence of Plaintiff's alcohol and tobacco use was relevant in light of the future damages sought by Plaintiff" because they were relevant for "determining life expectancy."⁵² The rationale

49. 163 A. 111, 111–12 (N.H. 1932).

50. *Id.* at 114–15; *see also, e.g.*, *Holton v. Mem'l Hosp.*, 679 N.E.2d 1202, 1213 n.2 (Ill. 1997) ("[I]f a person is given six months to live after being diagnosed with a fatal form of cancer and is negligently hit by a truck after leaving the doctor's office, the defendant driver cannot use the existing cancer as grounds for arguing he did not proximately cause the death. . . . [It] goes to the issue of damages, not liability.").

51. *Harlow v. Chin*, 545 N.E.2d 602, 612 (Mass. 1989).

52. *Stocki v. Nunn*, 351 P.3d 911, 928 (Wyo. 2015); *see also, e.g.*, *Kraus v. Taylor*, 710 A.2d 1142, 1144 (Pa. Super. Ct. 1998) (holding that evidence of chronic drug and alcohol abuse was admissible because it "suggests that [the plaintiff's] life expectancy deviates from the average"); *Sheehan v. Pima Cnty.*, 660 P.2d 486, 490 (Ariz. Ct. App. 1982) (upholding admission of evidence that decedent had been a heroin addict and smoked marijuana once or twice a couple of years before death as relevant to earning power and life expectancy); *Century '21' Shows v. Owens*, 400 F.2d 603, 610 (8th Cir. 1968) (upholding admission of evidence of occasional alcohol use where "drinking habits might have some bearing on [the plaintiff's] longevity"); *McIlwaine v. Metropolitan St. Ry. Co.*, 74 A.D. 496, 497–98, 77 N.Y.S. 426, 427 (1902) (holding that effects of alcohol use are "common knowledge" and so "great latitude should be allowed in the presentation of evidence that may aid the jury in the determination of [future damages]"); *Frank Slesnick & Robert Thornton, Life Expectancies for Persons with Medical Risks*, 7 J. FORENSIC ECON. 197, 206 (1994) ("For example, assume that a person who has been a smoker for several years is injured in an auto accident, but

for computing damages in this manner is straightforward. “Discounting damages for preexisting conditions or risks rationalizes the notion that a tortfeasor must take its victims as they are found. The tortfeasor is not responsible for any of the loss arising from the preexisting condition or for risks independent of the accident.”⁵³

The future is uncertain. Any method of calculating damages for future injuries must account for the associated uncertainty. Tort law recognizes as much. Unlike the prima facie case for liability, a plaintiff does not have to prove that the tortious conduct, more likely than not, caused the full extent of the harm for which the plaintiff seeks compensation. Instead, the plaintiff must prove “the extent of the harm and the amount of money representing adequate compensation with as much certainty as the nature of the tort and the circumstances permit.”⁵⁴ The different evidentiary standard governing the damages phase of the case helps to explain why “probabilistic evidence, in the form of actuarial tables, assumptions about present value and future interest rates, statistical measures of future harm, and the like, is the stock-in-trade of tort valuation” of compensatory damages.⁵⁵

B. The Application of Ordinary Damage Rules in Loss-of-Chance Cases

To determine how ordinary damage rules apply to the duty-preserving formulation of the lost-chance doctrine, we can reconsider the case in which the evidence shows that the patient had a 60% chance of dying from the cancer regardless of treatment, and that the malpractice left the patient with no chance of survival. The ordinary measure of compensatory damages for the wrongful death (or any permanent injury) depends on the patient’s life expectancy at the time of the malpractice, which incorporates the extent to which the patient’s preexisting condition had already reduced her life expectancy. When the malpractice occurred, the patient had only a 40% chance of surviving to a normal life expectancy. Consequently, if the compensatory damages award for wrongful death would be \$1 million for the patient if he did not have cancer and otherwise had a normal life expectancy, the damages should be reduced to account for how the preexisting cancerous condition

that the accident itself has no impact on life expectancy. Medical costs specifically related to the injury should properly reflect the reduced life expectancy given that the person is a smoker.”).

53. David Rosenberg, *The Causal Connection in Mass Exposure Cases: A “Public Law” Vision of the Tort System*, 97 HARV. L. REV. 849, 886 n.43 (1984).

54. RESTATEMENT (SECOND) OF TORTS § 912 (AM. L. INST. 1979).

55. *Matsuyama v. Birnbaum*, 890 N.E.2d 819, 841 (Mass. 2008), *overruled on other grounds*, *Doull v. Foster*, 163 N.E.3d 976 (Mass. 2021).

unavoidably reduced the patient's life expectancy. The 60% chance of dying prematurely from the cancer would accordingly reduce by \$600,000 the \$1 million damages for normal life expectancy, resulting a damages award of \$400,000 for the wrongful death.

The final damages award of \$400,000 also equals the compensatory damages for normal life expectancy (\$1 million) discounted by the lost chance of survival (40%)—the same measure of damages the majority of courts use to calculate loss-of-chance damages.⁵⁶ The compensatory damages are effectively limited to the value of the lost chance, even though not expressly based on that doctrine, because the negligent physician incurs liability only for the extent to which the malpractice caused the patient to lose the remaining chance of surviving to a normal life expectancy. Ordinary damage principles accordingly justify loss-of-chance damages for wrongful death.

The foregoing tort principles also apply to any type of permanent injury the tortious conduct allegedly caused. For example, consider a case in which the physician's negligent treatment eliminated a 40% chance of curing the patient's preexisting knee condition. As per the duty-preserving evidentiary rationale for the loss-of-chance doctrine, the physician cannot rely on the preexisting condition to avoid liability; that type of evidence would eliminate liability in all cases involving either this patient or conditions of this type (those that probably cannot be cured), thereby negating the duty. In measuring damages, however, the physician can rely on the preexisting condition to prove that at the time of the malpractice, the "life expectancy" of the plaintiff's knee was only 60% of what it would otherwise be for someone with the plaintiff's health characteristics. Consequently, the plaintiff should receive only 40% of the compensatory damages award that would otherwise be available for the permanent injury if the plaintiff's knee had a normal "life expectancy." The damages are identical to those the loss-of-chance doctrine produces.

This measure of damages directly follows from the substantive rationale for the tort duty—the basis for the duty-preserving formulation of the lost-chance doctrine. The duty only obligates the physician to provide professionally competent care in treating the condition; the "healthcare provider is not required to guarantee a particular beneficial result" such as a cure of the preexisting condition.⁵⁷ The ordinary rules for calculating compensatory damages recognize as much by accounting

56. *See id.* at 839 (adopting this method for calculating damages and observing that it is the majority rule).

57. *Alberts v. Schultz*, 975 P.2d 1279, 1284 (N.M. 1999) (describing nature of the tort duty owed by healthcare providers to their patients).

for the extent to which the preexisting condition had already reduced the patient's life expectancy at the time when the malpractice occurred. The only compensable harm is necessarily limited to the patient's lost chance of surviving the preexisting condition. A damages award which provides compensation for the breach of duty and correlative rights-violation is logically limited to compensation for the lost chance of survival or cure more generally.

This damages measure is based on a number of simplifying assumptions about the nature of the lost chance. For example, it assumes that if the patient had survived the cancer, the treatment would not adversely affect her other health characteristics in a manner that would reduce life expectancy (due to side-effects from chemotherapy, for example). If surviving the cancer would have such an effect, the damages calculation should reflect the extent to which the survivor's increased annual mortality risk exceeds the average annual mortality risk for the age cohort in question.⁵⁸

Like any other tort case, however, the plaintiff need only prove "the extent of the harm and the amount of money representing adequate compensation with as much certainty as the nature of the tort and the circumstances permit."⁵⁹ Consequently, courts have recognized that "what yardstick to use to measure the reduction in the decedent's prospects for survival—life expectancy, five-year survival, ten-year survival, and so on—is a question on which the law must inevitably bow to some extent to the shape of the available medical evidence in each particular case."⁶⁰ The varied ways to measure a particular patient's lost chance imply that there is "no clear-cut rule" to determine damages in all loss-of-chance cases.⁶¹ The important point for present purposes is that in principle the measure of compensatory damages in *any* wrongful-death malpractice case is based on the patient's lost chance of survival.

C. *The Duty-Preserving Loss-of-Chance Doctrine in Broader Context*

Considering the loss-of-chance doctrine across the full range of medical malpractice cases raises a new question. The doctrine provides a plaintiff with partial recovery for the wrongful death when the malpractice was not the most probable cause, so why should the plaintiff get full recovery anytime the malpractice, more likely than not, caused the wrongful death?

58. See Slesnick & Thornton, *supra* note 52, at 198–202.

59. RESTATEMENT (SECOND) OF TORTS § 912 (AM. L. INST. 1979).

60. *Matsuyama*, 890 N.E.2d at 838–39.

61. *Id.* at 839 (citing to and quoting from *McMackin v. Johnson Cnty. Healthcare Ctr.*, 73 P.3d 1094, 1100 (Wyo. 2003)).

Concluding that there is no good answer to this question, one court rejected the loss-of-chance doctrine:

If a plaintiff whose decedent had a 49% chance of survival, which was lost through negligent treatment, is permitted to recover 49% of the value of the decedent's life, then a plaintiff whose decedent had a 51% chance of survival, which was lost through negligent treatment, perhaps ought to have recovery limited to 51% of the value of the life lost. The latter result would require a change in our current wrongful death statute.⁶²

The problem with this reasoning is that the court never explains what constitutes full recovery in an ordinary case of wrongful death, a recurring problem throughout this body of case law. Compensatory damages in *any* wrongful-death case depend on the decedent's life expectancy at the time of the medical malpractice. Once that mortality risk is factored into the damages calculation, the final award has the exact same property which the court assumes would otherwise require a change in existing law.

To see why, we only have to slightly modify our hypothetical malpractice case to turn it into an ordinary case not dependant on the loss-of-chance doctrine. Suppose the patient had a 40% chance of dying from cancer regardless of treatment, and that the physician's malpractice eliminated the 60% chance of survival. The plaintiff can receive a full recovery in an ordinary negligence action because the wrongful death, more likely than not, was caused by the malpractice (60%) and not the preexisting condition (40%).

As in other wrongful-death malpractice cases that do not depend on the loss-of-chance doctrine, compensatory damages depend on the patient's life expectancy. When the malpractice occurred, the patient had a 40% chance of dying from the cancer and a 60% chance of attaining a normal life expectancy, limiting the compensatory damages to 60% of the \$1 million total damages that would otherwise be available for the patient if he were not sick and had a normal life expectancy. The damages award of \$600,000 is full recovery which compensates the patient's frustrated expectation of reasonable treatment—the lost chance of survival or cure.⁶³

The loss-of-chance doctrine does not inequitably treat physicians across all cases. A patient's life expectancy at the time of malpractice is

62. *Fennell v. S. Md. Hosp. Ctr., Inc.*, 580 A.2d 206, 214 (Md. 1990).

63. *See Doll v. Brown*, 75 F.3d 1200, 1206 (7th Cir. 1996) (“If the patient in our example was entitled to 25 percent of his full damages because he had only a 25 percent chance of survival, he should be entitled to 75 percent of his damages if he had a 75 percent chance of survival—not 100 percent of his damages on the theory that by establishing a 75 percent chance he proved injury by a preponderance of the evidence. He proves injury in both cases, but in both cases the injury is merely probabilistic and must be discounted accordingly.”).

always reduced by the preexisting health condition, limiting the physician's liability to the patient's lost chance of surviving to a normal life expectancy.

Relying on this same "self-evident principle of tort law" that "a tortfeasor should be charged only with the value of the interest he destroyed," the New Jersey Supreme Court extended the loss-of-chance framework to *all* medical malpractice cases involving preexisting conditions. "To the extent that a plaintiff's ultimate harm may have occurred solely by virtue of a preexistent condition, without regard to a tortfeasor's intervening negligence, the defendant's liability for damages should be adjusted to reflect the likelihood of that outcome."⁶⁴

The court correctly concludes that compensatory damages should always be adjusted to account for the extent to which the preexisting condition had already reduced the patient's life expectancy at the time of malpractice. Measuring damages in this manner, however, is based on ordinary tort principles and not the loss-of-chance doctrine.

When formulated as a duty-preserving evidentiary rule, the loss-of-chance doctrine does not extend to all cases. For cases in which the patient's chance of survival with proper treatment exceeds 50%, the preexisting condition does not uniformly foreclose recovery under the more-likely-than-not evidentiary standard, eliminating the duty-preserving rationale for the loss-of-chance doctrine. Hence this formulation of the doctrine conforms to the majority rule that limits loss-of-chance claims to cases in which the preexisting condition probably cannot be cured.⁶⁵ Nevertheless, the court's point is valid. The "self-evident principle of tort law" pertaining to the measurement of compensatory damages fully justifies awards based on the decedent's lost chance of survival, even in ordinary negligence cases.

These conclusions find further support once we look farther afield. In contract law, the *prima facie* case for liability is established without proof that the breach caused any damage.⁶⁶ After the contractual claim turns to the damages phase of the case, courts permit plaintiffs to establish the amount of compensable harm with the lost-chance doctrine.⁶⁷ When framed as a traditional damages question, a lost chance is compensable under both tort law and contract law.

64. *Scafidi v. Seiler*, 574 A.2d 398, 408 (N.J. 1990) (internal quotation and citations omitted).

65. *See, e.g., Estate of Dormaier ex rel. Dormaier v. Columbia Basin Anesthesia, P.L.L.C.*, 313 P.3d 431, 441 (Wash. Ct. App. 2013) ("As a matter of law, a greater than 50 percent reduction in the decedent's chance of survival is the same as proximate cause of the decedent's death under traditional tort principles" and accordingly forecloses recovery under the lost-chance doctrine).

66. Fischer, *supra* note 11, at 609 ("Damage is not an element in the cause of action for breach of contract.") (footnote omitted).

67. *See* DAN B. DOBBS & CAPRICE L. ROBERTS, *LAW OF REMEDIES: DAMAGES-EQUITY-RESTITUTION* § 3.4 at 241–43 (3d ed. 2018).

So, too, jurisdictions outside of the U.S. have adopted the same approach for proving compensatory damages with respect to future harms that elude proof under the evidentiary standard these jurisdictions employ in the damages phase of the case. “To meet these proof problems, . . . English, Canadian, and Australian courts apply the loss of a chance doctrine where damage is proven but the amount of the loss depends on future events . . . or hypothetical events (the position the plaintiff would have been in had no tort occurred).”⁶⁸

When framed as a damages question, loss-of-chance recoveries recur throughout the common law. The duty-preserving formulation of the loss-of-chance doctrine turns the lost chance into such a damages question, further explaining why this formulation of the doctrine is based on established tort principles.

III. DIFFERENT WAYS OF MEASURING DAMAGES FOR LOSS OF CHANCE

Thus far, we have only considered cases in which the malpractice eliminated any chance of cure or survival. In other cases, patients have some chance of surviving both the preexisting condition and the malpractice. For cases of this type, the appropriate measure of compensatory damages depends on whether the compensable harm in the liability phase of the case is the bodily injury (such as wrongful death) or the lost chance of survival or cure.

A. *Compensation for the Bodily Injury*

In a leading case, the patient died after having had a 40% chance of survival which the physician’s malpractice (misdiagnosis) reduced to 25%, requiring the court to determine the loss-of-chance damages.⁶⁹ The court applied the majority rule (analyzed in Part II) that the “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.”⁷⁰ The physician’s negligence reduced the chance of cure by 15% (40%–25%), and so “15% represents the patient’s loss of survival. If the total amount of damages proved by the evidence is \$500,000, the damages caused by defendant is 15% × \$500,000 or \$75,000.”⁷¹

As discussed in Part II, this calculation conforms to the ordinary measure of compensatory damages for permanent bodily injuries. By

68. Fischer, *supra* note 11, at 635 (footnotes omitted).

69. *McKellips v. St. Francis Hosp., Inc.*, 741 P.2d 467 (Okla. 1987).

70. *Id.* at 476.

71. *Id.* at 477.

relying on some simple algebra, we can see why this same measure of compensatory damages applies to all negligence claims involving permanent bodily injuries, including those cases in which the patient might survive both the preexisting condition and the malpractice.

Define p_a as the patient's probability of survival absent negligence and L as the amount of loss or damages.

In a traditional wrongful death action, the economic loss to survivors is the loss of expected income, $p_a * L$, which is obviously influenced by the victim's preexisting probability of survival, p_a . Given a positive posterior probability of survival of P_b , the loss of expected income to survivors is equal to expected income before the negligence less expected income after the negligence, or $(p_a * L) - (P_b * L)$. This is the same value as the associated loss of chance $(p_a - P_b) * L$.⁷²

This measure of compensatory damages is identical to the majority rule for calculating loss-of-chance damages. It does not depend on whether the probability of survival or cure (denoted p_a) is greater or less than 50%, nor does it depend on whether the malpractice eliminates or simply reduces the chance of survival (denoted p_b). This algebra accordingly shows why compensatory damages for permanent bodily injuries in *all* negligence cases can be recharacterized as the associated loss-of-chance damages.⁷³ Hence the majority rule for calculating loss-of-chance damages can be derived from the legal conclusion that the negligent physician is legally responsible for having caused the patient's bodily injury.

As we have found, two different rationales can justify this legal conclusion even when the preexisting condition probably could not have been cured—the set of cases to which the loss-of-chance doctrine applies. The first relaxes the plaintiff's burden of proving causation in the prima facie case and subjects the defendant to liability for the “full” amount of compensatory damages—one of the two conventional rationales for the doctrine.⁷⁴ The other justification—the one developed here—bars the negligent physician from relying on exculpatory causal evidence that would negate the duty for all patients whose chance of cure or survival is less than 50%, thereby subjecting the defendant to liability for the “full” amount of compensatory damages for the bodily injury.⁷⁵ Under either formulation, the defendant is responsible for the bodily injury in question, with the preexisting health condition reducing the “full”

72. Ralph Frasca, *Loss of Chance Rules and the Valuation of Loss of Chance Damages*, 15 J. LEGAL ECON. 91, 101 (2009) (italics and subscripts added and paragraph structure removed).

73. For further demonstration of this point, see *supra* Part II.C.

74. See *supra* note 5 and accompanying text.

75. See *supra* Part I.

compensatory damages award for that bodily harm in a manner which generates the majority rule for calculating lost-chance damages.

This compensatory damage award merits scare quotes to emphasize that the plaintiff's "full" recovery is less than the full amount of damages which would otherwise be available if the preexisting condition had not inherently reduced the patient's life expectancy at the time of the malpractice. The only compensable harm the premature death could proximately cause necessarily equals the extent to which the malpractice caused such a compromised patient to lose the remaining chance of living to a normal life expectancy.

B. Risk and Not Bodily Injury as the Compensable Harm

Instead of compensating for the bodily injury itself, the remaining rationale for the loss-of-chance doctrine redefines the compensable harm in the prima facie case as the lost chance of survival or cure.⁷⁶ This formulation permits the plaintiff to recover under the ordinary evidentiary standard: more likely than not, the malpractice reduced the patient's chance of survival or cure.

A lost chance of survival or cure is nothing other than the increased risk that the patient would suffer the bodily injury. Consequently, this formulation of the loss-of-chance doctrine is a liability rule for compensating risk exposure, often called proportional liability for reasons that will become apparent. The underlying rationale for liability is that the defendant's nonconsensual imposition of the risk on the plaintiff constituted the rights-violation rather than the tortious infliction of bodily injury.⁷⁷

A tort rule that compensates for risk exposure and not the ultimate bodily injury can still limit recovery to cases in which the patient was both exposed to the tortious risk *and* suffered the type of injury the risk threatened. More formally, such a risk-based liability rule can be defined in terms of a conditional probability: Given the condition or

76. See *supra* note 6 and accompanying text.

77. According to the philosopher David McCarthy, proportional liability can be morally justified on the ground that someone who imposes a risk of bodily injury on another owes a compensatory obligation for that risk exposure, an obligation that tort law can enforce by requiring the risky actor to pay compensatory damages to those who suffer the bodily injury. See David McCarthy, *Liability and Risk*, 25 PHIL. & PUB. AFF. 238, 250–59 (1996) (describing this type of liability rule as either a "natural lottery rule" or a "risk proportionality rule"); see also David McCarthy, *Rights, Explanation, and Risks*, 107 ETHICS 205 (1997) (defending claim that individuals have a right not to be subjected to a nonconsensual risk of bodily injury by another). For extensive criticism of the claim that risk exposure is a compensable harm, see Stephen Perry, *The Role of Duty of Care in a Rights-Based Theory of Negligence Law*, in THE GOALS OF PRIVATE LAW 79, 97–107 (Andrew Robertson & Hang Wu Tang eds. 2009).

fact of the relevant bodily injury, what is the likelihood that the negligent defendant caused it?

The logic of such a liability rule is well-illustrated by the following example from a related context. Suppose there is a background or environmental risk that 2-in-10,000 individuals will get cancer, and that the defendant's negligence increased the total risk to 3-in-10,000. The increase in risk (1-in-10,000) is simply a lost chance of avoiding cancer. Rather than permit all 10,000 individuals to recover for the tortious risk exposure or lost chance of avoiding cancer, the liability rule can be defensibly limited to those individuals who actually get cancer.

On average, for every 10,000 individuals exposed to the tortious risk, three will contract cancer and can pursue such a tort claim. Even though the defendant's negligence subjected each plaintiff to a small risk of injury (1-in-10,000), given that each one has the cancer, there is a one-third likelihood that the negligent defendant caused the harm (two out of every three cancers are caused by the background risk). Risk-based liability would enable the three cancer victims to each recover damages equal to one-third of the total damages for the cancer, an amount compensating for the risk exposure (the chance the defendant caused the bodily injury) rather than for the bodily injury itself. Liability in each case (one-third of the plaintiff's cancer damages) is also proportional to the total number of injuries the defendant's negligence causes across the community (one-third of all cancer injuries).

Consequently, if the loss-of-chance doctrine redefines the compensable harm in the *prima facie* case as the increased risk of dying (or lost chance of survival) and not the bodily injury itself, courts could defensibly limit the doctrine to cases in which the patient suffers bodily injury. A wrongful-death case involving a patient who lost a one-third chance of survival would generate an award of one-third of the compensatory damages award for wrongful death, just as in the foregoing example of cancer victims whom the defendant negligently exposed to a heightened risk of cancer.

As discussed in Part II, the majority rule for calculating loss-of-change damages reaches the same result, even though it compensates for the bodily injury with the lost chance only factoring into the damages calculation.⁷⁸ This measure of damages, however, diverges from the

78. Because the majority rule overlaps with proportional liability in these cases, commentators assume that the majority rule is a form of proportional liability. See Robert J. Rhee, *Probabilistic Causation in the Loss of Chance Doctrine: A Comment on Efficiency and Error Mitigation*, 55 SUFFOLK U. L. REV. 513, 516 (“[T]he majority rule provides proportional damages.”). This usage of proportional liability makes an assumption about loss-of-chance damages that I’ve tried to disprove in this Article. As shown in Part II, the majority rule is based on the ordinary measure of damages for *any* permanent injury. Consequently, it is misleading to describe an inherently

one the risk-based liability rule requires whenever the malpractice does not eliminate the plaintiff's chance of survival or cure more generally.

Consider a case in which the patient died after having had a 45% chance of survival that the physician's malpractice (misdiagnosis) reduced to 15%. Assume that the damages in an ordinary case of wrongful death would be \$600,000. The majority rule uses the 30% reduction of survival (45% - 15%) to compute the loss-of-chance damages as \$180,000 (\$600,000 multiplied by the lost chance of 30%). This measure of damages underestimates the probability that the malpractice in fact injured the plaintiff and accordingly undercompensates the plaintiff as compared to the compensatory damages award under a risk-based rule of proportional liability.

As Robert Rhee explains,

imagine 100 people in the plaintiff's exact situation. How many of these people would have died naturally from the ailment? Fifty-five

probabilistic damages rule based on life expectancies as an inherent form of proportional liability that compensates only for risk and not for the bodily injury itself. The risk-as-injury conception of proportional liability captures its distinctive attribute and is best employed in that context alone.

For example, the term proportional liability is frequently used to describe how the tort rules of alternative and market-share liability can be interpreted to provide compensation for risk and not bodily injury when limited to plaintiffs who suffered bodily injury and receive damages proportionate to the likelihood that the defendant caused the harm. See Mark A. Geistfeld, *The Doctrinal Unity of Alternative Liability and Market-Share Liability*, 155 U. PENN. L. REV. 447, 448-51 (2006). Outside of that context, scholars are often less clear about whether proportional liability compensates for risk or instead for the ensuing bodily injury. Based on a survey of the scholarship, Professor David Fischer observes that "[s]everal authors advocate an alternative corrective justice theory in support of proportional liability. These authors believe that subjecting a person to a risk of future physical harm is itself a compensable wrong." David A. Fischer, *Proportional Liability: Statistical Evidence and the Probability Paradox*, 46 VAND. L. REV. 1201, 1222 (1993) (footnote omitted). Fischer also observes that many of these scholars limit proportional liability to cases in which the exposed individuals ultimately suffer bodily injury and queries whether they "may be using this novel corrective justice theory merely as a rationale for compensating for the infliction of harm, rather than creation of risk." *Id.* at 1222-23. Fischer fails to acknowledge one critical point. The cited proponents of proportional liability are efficiency theorists who are also concerned about minimizing administrative costs, a concern that limits proportional liability to cases in which the exposed victims actually suffer bodily injury in order to reduce the number of cases, and thus administrative costs, of applying the liability rule.

A good example is provided by the leading account of Professor David Rosenberg, who defines "a standard of proportional liability" as one in which "courts would impose liability and distribute compensation in proportion to the probability of causation assigned to the excess disease risk in the exposed population, regardless whether that probability fell above or below the fifty-percent threshold and despite the absence of individualized proof of the causal connection." Rosenberg, *supra* note 53, at 859. Rosenberg argues that the tortious exposure to risk is a compensable harm. *Id.* at 885-87 (defending the idea of "risk as injury"). To illustrate how proportional liability can compensate for the tortious exposure to the risk of cancer rather than for the cancer itself, Rosenberg uses an example of plaintiffs who were both exposed and ultimately get cancer, with each cancer victim recovering damages based on probabilities identical to those employed in the example of proportional liability in the text above. See *id.* at 859 n.43. Throughout, Rosenberg emphasizes the importance of formulating the liability rule to efficiently minimize administrative costs. *Id.* at 887-923.

people, because the plaintiff had a 45% chance of survival before the malpractice. How many would have died from the malpractice? Thirty people, because the doctor reduced the chance of survival from 45% to 15%. How many people would have survived despite the negligence? Fifteen people, because there is still a 15% residual chance of survival after the negligence. Because these 15 people would have survived the natural ailment *and* the malpractice, they would have no injury and thus no legal claim. How many people would have died in total? Eighty-five people.⁷⁹

To compute the probability that the defendant's malpractice caused the patient's wrongful death, the relevant baseline or reference class "must be all injured people, which is 85 people and not 100 people. Of these unfortunate 85 people, 55 died from the natural ailment, and 30 died from the malpractice."⁸⁰ Hence the probability that the doctor's negligence caused the patient's wrongful death is $30/85 = 35.3\%$, which is greater than the reduced chance of survival as calculated by the majority rule ($45\% - 15\% = 30\%$).

The damages award compensating for the risk exposure, therefore, is " 35.3% (reduction in chance) \times \$600,000 (full loss) = \$211,765 (damages). The majority rule for computing loss-of-chance damages, in contrast, equals \$180,000 (full damages of \$600,000 multiplied by the lost chance of 30%), which results in an "undervaluation of damages of \$31,765."⁸¹

Whether the majority rule "undervalues" damages in cases like this, however, depends on the injury the damages remedy is supposed to compensate. Neither rule mistakenly calculates damages. The majority rule for calculating loss-of-chance damages can produce lower awards than a rule of risk-based or proportional liability because each one measures something different from the other.

C. *Tracing the Two Measures of Compensation to Two Different Conceptions of Injury*

As we have found, the majority damages rule derives from a liability rule that defines the compensable harm in the prima facie case as the bodily injury, with the loss of chance only factoring into the measurement

79. Robert J. Rhee, *Loss of Chance, Probabilistic Cause, and Damage Calculations: The Error in Matsuyama v. Birnbaum and the Majority Rule of Damages in Many Jurisdictions More Generally*, 1 SUFFOLK U. L. REV. ONLINE 39, 43–44 (2013). Others had earlier identified this same problem. See ARIEL PORAT & ALEX STEIN, TORT LIABILITY UNDER UNCERTAINTY 124 (2001); Aaron D. Twerski & Neil B. Cohen, *The Second Revolution in Informed Consent: Comparing Physicians to Each Other*, 94 NW. U. L. REV. 1, 28 n.68 (1999).

80. Rhee, *supra* note 79, at 44.

81. *Id.*

of future damages stemming from that predicate physical harm.⁸² A rule of risk-based proportional liability, in contrast, does not measure compensatory damages in terms of future harms stemming from a predicate bodily injury; it instead bases liability on the probability that the physician's malpractice caused the patient's bodily injury, conditional upon the occurrence of that injury. Each damages rule compensates a different type of harm, explaining why their measures of compensation can differ.

The majority rule measures damages in terms of the future compensable harms that the malpractice will proximately cause in light of the patient's life expectancy at the time of malpractice, thereby compensating for the lost chance of the patient living to that life expectancy. This calculation is a forward-looking exercise common to the calculation of compensatory damages; it measures "the chance of something occurring in the future given various potential outcomes."⁸³

The probability embodied in this forward-looking damages measure is defined in terms of a reference class comprised of everyone who had the preexisting condition and was exposed to the malpractice, some of whom will ultimately survive (or be cured) and some who will not. Only time will tell which patients actually experience one potential outcome or the other. But at the time of the malpractice, any one of these patients could ultimately die or instead be cured, which is why the associated reference class for computing the associated probability or lost chance includes all patients, not merely those who end up dying (or not being cured).

By contrast, the risk-based rule of proportional liability must exclude those patients who survive in order to calculate the probability or lost chance of survival within the liability phase of the case. This rule defines the compensable harm in the *prima facie* case as the lost chance or probability of bodily injury, conditional upon the occurrence of that injury. Any patients who do not suffer bodily injury—that is, those who survive both the preexisting condition and the malpractice—are not relevant for determining the requisite conditional probability (they are outside the relevant reference class). This computation does not measure the damages as a future injury involving the patient's lost chance of attaining her life expectancy, differentiating it from the majority rule.⁸⁴

82. See *supra* Part III.A.

83. Rhee, *supra* note 79, at 46.

84. See *id.* ("[W]hen a person dies, which is a precondition to bringing a medical malpractice claim for loss of chance, we are no longer concerned with various states of future outcomes including the possibility of survival, but instead we are looking back in time to the past. The reference class is the group of dead plaintiffs, and should not include the class of people who survived.")

When no one survives (or is cured) following the malpractice, the two damage measures reach the same result because their reference classes overlap under these conditions.⁸⁵ But when some patients survive both the malpractice and the preexisting condition, the two reference classes diverge. As the example in the prior Section shows, this subtle difference can produce significantly different damage awards.

Each damages rule fully compensates a lost chance, but for fundamentally different reasons. The majority rule measures the lost chance in terms of future harms—the lost opportunity for the patient to attain her life expectancy—proximately caused by the patient’s predicate bodily injury, whereas the risk-based rule of proportional liability measures the lost chance in the backward-looking terms of the actual likelihood that the defendant’s malpractice caused the patient’s bodily injury. The two different ways of measuring damages stem from their different treatment of the compensable harm in the liability phase of the case, with one based on bodily injury and the other based on the risk of suffering that injury. The nature of the compensable harm in the liability phase of the case accordingly determines the appropriate measure of compensatory damages in loss-of-chance cases.

D. The Measure of Damages and Evolution of the Liability Rule

The difference between the two damage measures is likely to affect how the loss-of-chance doctrine will develop over time. A plaintiff will argue for the risk-based rule of proportional liability whenever it results in a higher damages award, while the defendant will endorse the alternative formulations that justify the majority rule with its lower measure of compensatory damages. To resolve these disputes, courts will need to clearly identify the underlying rationale for the loss-of-chance doctrine.

These courts could decide to retain the majority rule, reasoning that the lost chance only factors into the damages phase of the case because the plaintiff has satisfied the prima facie case for liability under a relaxed burden of proof. The evidence shows that the malpractice might have caused the bodily injury in question, even though the preexisting condition was the most likely cause.

Courts taking this approach face an evident problem. A burden of proof that permits recovery simply because the tortious misconduct might have caused the injury would seem to justify recovery in all other tort cases involving such evidence.⁸⁶ What justifies relaxing the burden

85. *Id.*

86. See RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 26, cmt. n (AM. L. INST. 2010) (“Without limits, this reform is of potentially enormous scope, implicating a

of proof in certain cases of medical malpractice rather than in all tort cases?

Alternatively, courts could reject the majority rule and instead measure damages for the lost chance as required by a rule of risk-based proportional liability. Rather than relaxing the plaintiff's burden of proof, this formulation solves the causal problem by redefining the compensable harm in the prima facie case as the exposure to tortious risk, conditional upon the occurrence of bodily injury.

Once again, courts taking this approach face an evident problem. Why does such a rule of risk-based proportional liability not defensibly extend to any case in which the plaintiff proves under the ordinary evidentiary standard that the defendant's negligence increased the risk of a bodily injury the plaintiff ultimately suffered, thereby reducing the plaintiff's chance of avoiding that injury? What explains why this version of the loss-of-chance doctrine is limited to cases of medical malpractice?

After adopting this formulation of the liability rule and facing the associated question of why it is limited to medical malpractice, the Massachusetts Supreme Court in *Matsuyama v. Birnbaum* echoed the common refrain that "reliable expert evidence establishing loss of chance is more likely to be available in a medical malpractice case than in some other domains of tort law."⁸⁷ However, this rationale for limiting the doctrine to medical malpractice also begs the question.

Suppose a plaintiff's causal proof is wholly based on expert testimony showing that the defendant's negligence increased but did not double the risk of injury as required by the more-likely-than-not evidentiary standard.⁸⁸ If the defendant moves to dismiss the claim on the ground that the plaintiff's causal evidence does not satisfy the ordinary burden

large swath of tortious conduct in which there is uncertainty about factual cause, including failures to warn, to provide rescue or safety equipment, and otherwise to take precautions to protect a person from a risk of harm that exists. . . .").

87. *Matsuyama v. Birnbaum*, 890 N.E.2d 819, 834–35 (Mass. 2008), *overruled on other grounds*, *Doull v. Foster*, 163 N.E.3d 976 (Mass. 2021). *See also, e.g.*, RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 26 cmt. n (AM. L. INST. 2010) (explaining that "the courts that have accepted lost opportunity as cognizable harm have almost universally limited its recognition to medical-malpractice cases" in part because "reasonably good empirical evidence is often available about the general statistical probability of the lost opportunity").

88. *See, e.g.*, *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1320 (9th Cir. 1995) ("California tort law requires plaintiffs to show not merely that Bendectin increased the likelihood of injury, but that it more likely than not caused their injuries. In terms of statistical proof, this means that plaintiffs must establish not just that their mothers' ingestion of Bendectin increased somewhat the likelihood of birth defects, but that it more than doubled it—only then can it be said that Bendectin is more likely than not the source of their injury. Because the background rate of limb reduction defects is one per thousand births, plaintiffs must show that among children of mothers who took Bendectin the incidence of such defects was more than two per thousand.") (citation omitted).

of proof, the court needs to evaluate the plaintiff's expert testimony as if it were sufficiently reliable (otherwise the defendant would move to dismiss the claim for the lack of sufficiently reliable causal evidence).⁸⁹ In these cases, the plaintiff has reliable statistical evidence showing that the defendant's negligence increased the risk of harm and therefore reduced the plaintiff's chance of avoiding the bodily injury the plaintiff ultimately suffered. What, then, would explain why the plaintiff cannot recover under the lost-chance doctrine, even though the case involves ordinary negligence rather than medical malpractice?⁹⁰

The question-begging nature of this rationale explains why courts have invoked other reasons for limiting the loss-of-chance doctrine. Considered together, they point towards a conceptualization of the doctrine as a duty-preserving evidentiary rule that treats the lost chance as a damages question and not a compensable harm within the prima facie case.

After advertent to the availability of reliable statistical evidence in medical cases, the *Matsuyama* court limited the lost-chance doctrine to cases of medical malpractice in part because "medical negligence that harms the patient's chances of a more favorable outcome contravenes the expectation at the heart of the doctor-patient relationship that 'the physician will take every reasonable measure to obtain an optimal outcome for the patient.'"⁹¹ The court in this passage was quoting from a draft of the Restatement (Third) of Torts, which in its final form states the same basic proposition.⁹² The court then cited to Professor Kenneth Abraham's discussion of the "argument that 'health care providers undertake to maximize a patient's chances of survival, [and so] their failure to do so should be actionable. Ordinary actors who negligently risk causing harm have not undertaken such a duty.'"⁹³ A focus on medical malpractice naturally leads to consideration of the substantive nature of the physician's tort obligation owed to the patient.

The *Matsuyama* court justified its decision with yet another reason: "Third, it is not uncommon for patients to have a less than even chance

89. *See id.* at 1322 ("As the district court properly found below, 'the strongest inference to be drawn for plaintiffs based on the epidemiological evidence [proffered by their experts] is that Bendectin could *possibly* have caused plaintiffs' injuries.'").

90. *Cf. id.* (holding that the expert testimony for the plaintiffs was inadmissible because it was not relevant for proving that the defendant's defective drug Bendectin, more likely than not, caused the plaintiffs' bodily injuries).

91. *Matsuyama*, 890 N.E.2d at 835.

92. RESTATEMENT (THIRD) OF TORTS: LIAB. FOR PHYSICAL AND EMOTIONAL HARM § 26 cmt. n (AM. L. INST. 2010) (stating that "a contractual relationship exists between patient and physician (or physician's employer), in which the *raison d'être* of the contract is that the physician will take every reasonable measure to obtain an optimal outcome for the patient . . .").

93. *Matsuyama*, 890 N.E.2d at 835 (quoting K.S. ABRAHAM, FORMS AND FUNCTIONS OF TORT LAW 117–118 (3d ed. 2007)).

of survival or of achieving a better outcome when they present themselves for diagnosis, so the shortcomings of the all or nothing rule are particularly widespread.”⁹⁴ The court here understated the nature of the problem. Based on all the evidence before the court, the ordinary evidentiary standard would bar recovery in *all* cases governed by a physician’s duty owed to patients with preexisting conditions that probably cannot be cured. In each case, the preexisting condition more likely than not caused the ultimate bodily injury, thereby barring recovery.

Having already emphasized the importance and value of the physician’s duty, the court could have taken one more incremental step and recognized that, to preserve the tort duty, a negligent physician cannot rely on the patient’s preexisting condition as exculpatory causal evidence. Allowing a negligent physician to defeat the plaintiff’s claim with this type of exculpatory evidence would negate liability in all cases the duty governs, thereby negating the duty itself.

If a court is going to recognize a duty, it must enforce the duty in a manner that allows for at least one case of liability within the entire category of cases the duty governs. As applied to the general category of case involving patients with preexisting conditions that probably cannot be cured, this substantive property of the duty prevents negligent physicians from relying on the preexisting condition as exculpatory causal evidence.⁹⁵ The evidence relevant for proving causation accordingly excludes the preexisting condition, making it possible for the plaintiff to prove that the malpractice more likely than not caused the bodily injury as compared to the other remaining causal explanations. The defendant physician accordingly incurs negligence liability for the bodily injury itself, with the preexisting condition then reducing compensation in the damages phase of the case to account for the fact that the malpractice only injured the patient to the extent that it reduced her chance for survival or cure.⁹⁶ When justified in this manner, the loss-of-chance doctrine is an exclusionary evidentiary rule that does not reduce the plaintiff’s burden of proof and measures compensatory damages on the basis of traditional damage principles, thereby producing the same damages calculation the *Matsuyama* court adopted.⁹⁷

This damages calculation is not appropriate if the loss-of-chance doctrine instead embodies a new cause of action that compensates for the tortious exposure to risk rather than for the bodily injury itself. The appropriate damages for such a rule of risk-based proportional liability

94. *Id.*

95. *See supra* Part I.A.

96. *See supra* Part II.

97. *See supra* Part III.A.

can substantially exceed the awards derived from the majority rule the *Matsuymama* court adopted. How courts justify the loss-of-chance doctrine will ultimately determine the correct method for calculating loss-of-chance damages.

CONCLUSION

As conventionally justified, the loss-of-chance doctrine either relaxes the plaintiff's ordinary burden of proving causation or otherwise redefines the compensable harm as the patient's lost chance of survival or cure rather than the bodily injury itself. The doctrine, however, does not have to alter basic tort principles. When conceptualized as a duty-preserving tort rule, the loss-of-chance doctrine comfortably fits within the "old category" of duty-preserving tort rules that courts have previously recognized in other contexts.⁹⁸ The doctrine, therefore, is particularly appropriate for considering the question "New Torts?"—the subject of the 29th Annual Clifford Symposium. Loss of chance can be a new tort or an old one, depending on its underlying rationale.

98. *See supra* Part I.B.

