

SUPREME COURT OF IOWA

Patricia Mead, as Executor of the Estate of Lucille Humpal v. Burton
Adrian, M.D. and Iowa Physicians Clinic Medical Foundation d/b/a
Integra Health

Mead v. Adrian, 670 N.W.2d 174 (Iowa 2003) · No. No. 01-1858 · Decided October 8, 2003

SUMMARY

The Supreme Court of Iowa affirmed a conditional new trial in a medical malpractice action involving the delayed diagnosis of diverticulitis and the death of Lucille Humpal. The court held that traditional wrongful-death damages and lost-chance-of-survival damages may be pleaded in the alternative, but recovery for both theories in the same case would be duplicative. The court permitted the personal representative to avoid a new trial by remitting the \$125,000 lost-chance award.

CASE DETAILS

COURT	Supreme Court of Iowa
WRITING FOR THE COURT	Carter, Justice; Cady, Justice; Lavorato, Chief Justice; Ternus, Justice
JURISDICTION	Iowa
DECIDED	October 8, 2003
DOCKET	No. 01-1858
DISPOSITION	affirmed_and_remanded
PROCEDURAL POSTURE	Appeal from an order granting a conditional new trial in a medical malpractice wrongful-death action after the jury awarded traditional wrongful-death and predeath damages together with lost-chance-of-survival damages.
STANDARD OF REVIEW	The opinion does not expressly state a formal standard of review; it reviews the district court's grant of a new trial and its conditional remittitur ruling.
PRECEDENTIAL VALUE	Published precedential opinion of the Supreme Court of Iowa; Justice Cady filed a special concurrence, and Justices Lavorato and Ternus did not participate.
PARTIES	Patricia Mead, as Executor of the Estate of Lucille Humpal v. Burton Adrian, M.D., Iowa Physicians Clinic Medical Foundation d/b/a Integra Health

TOPICS

medical malpractice

wrongful death

damages

negligence

appellate procedure

PRACTICE AREAS

medical malpractice

wrongful death

tort damages

appellate procedure

QUESTIONS PRESENTED

1. Whether traditional wrongful-death damages and lost-chance-of-survival damages may be submitted as alternative theories of recovery.
2. Whether a plaintiff may recover predeath damages in addition to proportionally reduced lost-chance-of-survival damages.
3. Whether submitting both traditional wrongful-death damages and lost-chance damages in a manner that permits duplicative recovery requires a new trial.
4. Whether the conditional remittitur provision in the district court's new-trial order was appealable and what condition should govern the new trial on remand.

HOLDINGS

1. The claims may be asserted and submitted as alternative theories of recovery, but the jury must first consider the traditional negligence or wrongful-death claim and may consider the loss-of-chance claim only if traditional causation does not support recovery.
2. A loss-of-chance claim is a separate negligence-based theory consisting of duty, breach, proximate causation, and damages; the compensable injury is the lost chance of avoiding the ultimate harm, not an additional item of damages alongside traditional negligence damages.
3. Lost-chance damages must be proportionally reduced according to the percentage of chance lost because of the defendant's negligence, and the reduction applies to damages attributable to death as such; proximately caused predeath damages may be recovered in full.
4. When the jury finds that traditional wrongful-death damages were proximately caused by the defendant's negligence, it is improper to award a separate lost-chance amount that is included within and duplicated by the traditional wrongful-death recovery.
5. The Supreme Court of Iowa could sustain the conditional new trial on its own terms and permit the plaintiff to avoid a new trial by deleting the \$125,000 lost-chance award, with interest on the remaining award calculated under the original judgment.

KEY QUOTATIONS

“As developed in our case law, the last-chance-of-survival doctrine is not an alteration of the traditional rules for determining proximate cause, but, rather, the creation of a newly recognized compensable event to which those traditional rules apply.” (178)

“However, if both a traditional wrongful-death claim and a lost-chance-of-survival claim are submitted, the proportionally reduced recovery for lost chance would be included within and duplicated by an award of traditional wrongful-death damages.” (180)

“Loss of chance is a separate theory of recovery from a traditional negligence claim that is normally brought as an alternative claim in a traditional negligence action.” (186)

“A loss of chance claim includes the basic elements of a traditional negligence claim—duty, breach of duty, causation, and damages.” (187)

FACTUAL BACKGROUND

Lucille Humpal, age seventy-three, was hospitalized after weakness, abdominal distension, severe lower abdominal pain, and an elevated white blood cell count. Dr. Burton Adrian initially suspected a urinary-tract infection and ordered laxatives and enemas, but Humpal's condition did not improve over several days. Additional x-rays eventually revealed a ruptured colon caused by diverticulitis; she died during emergency surgery from toxicity caused by bacterial spread.

PROCEDURAL HISTORY

The jury awarded \$253,500, including \$125,000 for lost chance of survival. The district court granted a conditional new trial because the submitted damages theories were duplicative and because the jury was not properly instructed on calculating lost-chance damages. The personal representative declined the \$125,000 remittitur and appealed; the Supreme Court of Iowa affirmed and remanded for further proceedings, allowing avoidance of a new trial if the representative accepted deletion of the \$125,000 lost-chance award.

DISPOSITION

affirmed_and_remanded

REMAND INSTRUCTIONS

The case was remanded for further proceedings consistent with the opinion. The personal representative could avoid a new trial by agreeing within thirty days after filing of the procedendo to delete the \$125,000 lost-chance award; if accepted, interest on the remaining award was to be calculated as provided in the original judgment.

CASES CITED

- DeBurkarte v. Louvar, 393 N.W.2d 131 (Iowa 1986)
- Sanders v. Ghrist, 421 N.W.2d 520 (Iowa 1988)
- Wendland v. Sparks, 574 N.W.2d 327 (Iowa 1998)
- Becker v. D & E Distrib. Co., 247 N.W.2d 727 (Iowa 1976)
- Schmitt v. Jenkins Truck Lines, Inc., 170 N.W.2d 632 (Iowa 1969)
- Fitzgerald v. Hale, 78 N.W.2d 509 (Iowa 1956)
- Gerst v. Marshall, 549 N.W.2d 810 (Iowa 1996)

- Estate of Long v. Broadlawns Medical Center, 656 N.W.2d 71 (Iowa 2002)
- Larsen v. United Fed. Sav. & Loan Ass'n, 300 N.W.2d 281 (Iowa 1981)
- Miller v. Young, 168 N.W.2d 45 (Iowa 1969)
- Alberts v. Schultz, 975 P.2d 1279 (N.M. 1999)
- Cahoon v. Cummings, 734 N.E.2d 535 (Ind. 2000)
- Jorgenson v. Vener, 616 N.W.2d 366 (S.D. 2000)
- Smith v. Washington, 734 N.E.2d 548 (Ind. 2000)

OPINION

PER CURIAM.

670 N.W.2d 174 (2003)

Patricia MEAD, as Executor of the Estate of Lucille Humpal, Appellant,

v.

Burton ADRIAN, M.D. and Iowa Physicians Clinic Medical Foundation d/b/a Integra Health, Appellees.

No. 01-1858.

Supreme Court of Iowa.

October 8, 2003.

*175 David L. Baker and John L. Riccolo of Riccolo & Baker, P.C., Cedar Rapids, for appellant.

*176 Gregory M. Lederer and James A. Gerk of Simmons, Perrine, Albright & Ellwood, P.L.C., Cedar Rapids, for appellees.

CARTER, Justice.

This is an appeal from the granting of a new trial in a medical malpractice action, which resulted in a substantial verdict for the patient's personal representative. The plaintiff is Patricia Mead, executor of the estate of Lucille Humpal, deceased. The defendant is Dr. Burton Adrian.[1]

The grant of a new trial was posited on two grounds: inconsistency in allowing the jury to award both wrongful-death damages and lost-chance damages, and failure to adequately instruct the jury as to the basis for determining lost-chance damages. After reviewing the record and considering the arguments presented, we affirm the judgment of the district court.

In April 1997 Lucille Humpal was seventy-three years old. During the first few weeks of that month, she began to feel weak and eventually became bedridden. By April 20 she was too weak to get out of bed, and an ambulance was summoned to her home. She was delivered to the emergency room of a Waterloo hospital. After a series of tests, she was released.

The results of a blood analysis revealed that Mrs. Humpal's white blood cell count was 27,000. When that result was shared with her personal physician, Dr. Burton Adrian, he ordered that she be admitted to the hospital as an inpatient. She entered the hospital at 9:30 a.m. on April 21.

At the time of her hospital admission, Mrs. Humpal had a distended abdomen and was complaining of severe lower abdominal pain. Dr. Adrian saw her in the hospital that afternoon. His

tentative diagnosis of her condition was an infection of the urinary tract. Because she had indicated to hospital personnel at the time of her admission that she could not recall having any recent bowel movements, Dr. Adrian ordered laxatives and enemas. X-rays taken at this time were inconclusive.

Over the next four days, Mrs. Humpal received five enemas, but they produced no relief from her abdominal pain. Her abdomen continued to be distended and by April 24 had attained the size of a basketball. On April 25 Dr. Adrian suspected diverticulitis. He ordered additional x-rays, which revealed that Mrs. Humpal's colon had ruptured. Emergency surgery revealed an advanced infection of the area surrounding the ruptured colon. Mrs. Humpal died while the surgery was in progress. It was subsequently determined that she had been suffering from diverticulitis. Her cause of death was determined to be toxicity resulting from a spread of bacteria secondary to a ruptured diverticulum. Other facts that bear on the disposition of the appeal will be considered in our discussion of the legal issues presented.

I. The Issues Submitted to the Jury.

In her petition in this action, Mrs. Humpal's personal representative claimed wrongful-death damages based on the alleged negligence of Dr. Adrian. The elements of damage requested in the petition included loss of accumulation to the decedent's estate, interest on funeral and burial expenses, and physical and mental suffering.[2] During the trial, there were amendments *177 to conform to proof that added claims for predeath loss of full mind and body and lost chance of survival.[3] In addition, the personal representatives asked to amend to conform to proof and include claims for loss of services and support recoverable under Iowa Code section 613.15 (2001). That request was denied by the court as untimely.

At the conclusion of plaintiff's evidence, Dr. Adrian moved for a directed verdict. That motion was sustained with respect to the claim for loss of accumulation by the estate on the ground that there was insufficient evidence of such loss. The motion was overruled as to the other items of damage. The items of damage submitted for the jury's consideration were:

interest on burial expenses

predeath physical and mental pain and suffering

predeath loss of full mind and body

lost chance of survival

As to all of these items of damage, the jury was instructed that to recover the personal representative must prove that the damages claimed were proximately caused by Dr. Adrian's negligence and the amount of the damages. With respect to the claim for lost chance of survival, the jury was instructed:

Damages recoverable [for this item] are limited to the value of this loss of chance. This is measured by the difference between the chance of survival if treatment had been given at the earlier time, and the chance of survival at the time when treatment was given. Plaintiff may not

recover for harm caused by the preexisting condition to which defendant's negligence did not contribute.

The jury found that the following damages were proximately caused by Dr. Adrian's negligence:

interest on burial expense \$ 3,500
predeath physical and mental pain
and suffering \$100,000
predeath loss of full mind and body \$ 25,000
lost chance of survival \$125,000
TOTAL \$253,500

II. The Motion for New Trial.

Following the jury's verdict, Dr. Adrian filed a motion for new trial in which he urged:

[The court submitted] both the traditional "all or nothing" damages and "lost chance of survival" damages to the jury. Both theories should not have been submitted to the jury. Submittal of both theories was not in accordance with Iowa law and resulted in improper, duplicative and excessive damages being awarded by the jury under the court's instructions. Plaintiff was fully compensated by the jury's award of damages for the traditional elements for wrongful death allowed by Iowa law. Nevertheless, the court's instructions allowed the jury to award an additional lump sum of \$125,000 for the "lost chance of survival." Since it cannot be determined whether the jury found for plaintiff on the "all or nothing" theory or the "lost chance of survival" theory, a new trial is required.

The district court granted a new trial for the reasons urged in Dr. Adrian's motion and also for the reason that "the jury was not properly instructed on how to compute those [lost chance of survival] damages." The grant of a new trial was conditional on Mrs. Humpal's personal representative not agreeing to a remittitur of \$125,000, the amount awarded for lost chance of survival. *178 The personal representative did not agree to the remittitur.

The personal representative urges that both traditional death damages and lost-chance damages may be submitted to the jury. In addition, she contends that in the present case the recovery for lost-chance damages was not inconsistent with or duplicative of the other damages awarded. To resolve this contention, we must consider the basis for recovering damages under a theory of lost chance of survival.

This court has considered allowing damages for lost chance of survival on three prior occasions. The case of *DeBurkarte v. Louvar*, 393 N.W.2d 131 (Iowa 1986), was an action by a plaintiff who was still living and seeking to recover damages for medical malpractice that would shorten her life expectancy. Traditional wrongful-death damages were not an issue because death had not occurred. Although the doctrine of lost chance of survival was discussed and approved in our opinion, there was no issue with regard to damages to be allowed under that theory. The district court's instructions in that case had limited recovery to past, unreimbursed medical expenses

caused by the physician's negligence and past and future pain and suffering, including mental anguish. Consequently, the damage issue on appeal only concerned a sufficiency of the evidence to support the verdict under those instructions.

In *Sanders v. Ghrist*, 421 N.W.2d 520 (Iowa 1988), a claim was made that a doctor negligently failed to diagnose and treat a malignant tumor. A traditional wrongful-death recovery was sought against the doctor, and in addition a claim was made for "lost chance to survive the disease." *Sanders*, 421 N.W.2d at 521. The trial court submitted the traditional wrongful-death damages to the jury but declined the plaintiff's request to submit a claim for lost chance of survival. In a general verdict, the jury rejected the traditional wrongful-death claim. We held that the jury should have been given the opportunity to consider the alternative claim of lost chance of survival and that the trial court erred in not so instructing the jury. A new trial was ordered on all issues.

In *Wendland v. Sparks*, 574 N.W.2d 327 (Iowa 1998), a medical malpractice action was based on the failure of a doctor to attempt to resuscitate a patient. Based on deposition testimony by expert witnesses that the patient's chance of survival was less than probable, the district court granted summary judgment for the defendants. Although lost chance of survival had not been pleaded, it was raised in the personal representative's resistance to the motion for summary judgment. Among the summary judgment papers was deposition testimony indicating that the decedent had a ten percent chance of survival if resuscitation had been undertaken. We concluded that this was sufficient to permit a trier of fact to find that the decedent had sustained a loss for which damages could be awarded.

As developed in our case law, the last-chance-of-survival doctrine is not an alteration of the traditional rules for determining proximate cause, but, rather, the creation of a newly recognized compensable event to which those traditional rules apply. It is manifest from the *Sanders* and *Wendland* decisions that a personal representative may recover damages for a lost chance of survival as an alternative to a traditional wrongful-death recovery. Recovery in such instances is for the lost chance of survival "evaluated independently." *Wendland*, 574 N.W.2d at 331. We have recognized in a medical malpractice case in which death could be attributed to a preexisting condition that the amount of *179 the damages for lost chance of survival is "the percent of lost chance attributed to the intervening act of negligence." *Id.* This is consistent with our general rule limiting the defendant's liability to compensation for injuries "caused by his own acts of negligence and not for injury, suffering or impaired health due to other causes." *Becker v. D & E Distrib. Co.*, 247 N.W.2d 727, 730 (Iowa 1976). This appears to be the general rule for valuing lost chance of survival. See Todd S. Aagaard, *Identifying and Valuing the Injury in Lost Chance Cases*, 96 Mich. L.Rev. 1335, 1349 (1998) (collecting cases). It means that a decedent with a ten percent chance of survival is entitled to recover ten percent of the amount of damages that could have been awarded if the defendant's negligence had proximately caused the death.

In the application of these principles, it is important to identify the damages that are to be proportionately reduced to arrive at an award for lost chance of survival. Logically, this should be

the amount of damages attributable to the death as such and should not include predeath elements of recovery such as pain and suffering, loss of full mind and body, and increased medical expenses.[4] We have recognized damages attributable to the death as such include:

1. The present worth or value of the estate, which the decedent would reasonably be expected to have accumulated between the time of death and the end of the decedent's natural life expectancy.
2. An award of interest on the reasonable funeral expenses of decedent for the length of time that they were prematurely incurred not to exceed the reasonable costs of a funeral for a person of decedent's social and financial standing.
3. The value of services and support recoverable by a designated beneficiary under Iowa Code section 613.15.

Schmitt v. Jenkins Truck Lines, Inc., 170 N.W.2d 632, 661 (Iowa 1969). One seeking to recover these damages may also recover predeath damages under our survival statute, see *Fitzgerald v. Hale*, 247 Iowa 1194, 1198, 78 N.W.2d 509, 511 (1956), but those damages are not attributable to a decedent's death because they may be recovered in instances where death has not occurred.

Predeath injuries, if proximately caused by the defendant's negligence, are recoverable in full. They may be recovered in addition to the amount awarded for lost chance of survival. See David A. Fischer, *Tort Recovery for Loss of a Chance*, 36 Wake Forest L.Rev. 605, 620-21 (2001) ("The most accurate method of valuing damages [for lost chance of survival] is to award proportional compensation for damages, such as lost earnings, that should be reduced and to award full recovery for damages, such as extra medical expenses, that should not be reduced."). Although such damages may be challenged based on insufficient proof, they are recoverable to the full extent that the evidence supports the jury's award. In the present case, Mrs. Humpal's preexisting condition may have made it difficult to separate the amount of the predeath damages that were caused by Dr. Adrian's negligence from those that flowed from the preexisting condition. Nevertheless, there was evidence *180 from which the jury could make that separation. It acted under instructions limiting recovery to only those damages that were proximately caused by the defendant's negligence. We must assume that it did this. Consequently, there is no basis for reducing this portion of the recovery under the proportional-reduction analysis that applies to damages awarded for lost chance.

The *Sanders* case is similar to the present case in that it involved alternative claims for traditional wrongful-death damages. Implicit in the reversal and remand that was ordered was a recognition that such claims may be asserted in the alternative. We are convinced that this should be allowed because a trier of fact might fail to find on the evidence that a negligent act was a proximate cause of a patient's death yet believe that the negligence deprived the patient of a chance to survive. However, if both a traditional wrongful-death claim and a lost-chance-of-survival claim are submitted, the proportionally reduced recovery for lost chance would be included within and duplicated by an award of traditional wrongful-death damages.

In the present case, the district court found that the proof of medical causation was sufficient to

submit an ordinary wrongful-death claim to the jury. At the request of the personal representative, it also submitted a claim for lost chance of survival.[5] The ordinary wrongful-death claim was severely limited because the court ruled that there was no evidentiary support for a loss of accumulation to the estate. It also ruled that the claims for loss of services and support had not been timely asserted.

The only element of an ordinary wrongful-death recovery submitted to the jury was interest on burial expenses. Although the recovery allowed for that item was small when compared to the rest of the verdict, we believe it was nevertheless improper to allow an award for lost chance of survival when the jury found from the evidence that ordinary wrongful-death damages were proximately caused by the defendant's negligence. The nature of a claim for lost chance of survival is such that it must be proportionally less than a recovery for traditional wrongful-death damages for the same decedent in the same case. Consequently, the trial court was correct in sustaining Dr. Adrian's motion for a new trial.

III. The Remittitur Issue.

Dr. Adrian has attempted to appeal from that portion of the district court's order conditioning the grant of a new trial on the refusal of the personal representative to accept a reduced award. There is no legal basis for pursuing such an appeal. Once the personal representative appealed the district court's order for a new trial, the conditional feature of that order became of no force and effect. Iowa R. Civ. P. 1.1010(3). Notwithstanding rule 1.1010(3), this court is free to impose its own conditions for sustaining the district court's grant of a new trial. *Larsen v. United Fed. Sav. & Loan Ass'n*, 300 *181 N.W.2d 281, 289 (Iowa 1981); *Miller v. Young*, 168 N.W.2d 45, 53 (Iowa 1969). In considering whether to do that, we give deference to Dr. Adrian's arguments in his purported cross-appeal, but believe that this is clearly a case calling for a conditional new trial.

The damages were itemized by the jury. The only element of damage challenged as improper in the motion for new trial was the award for lost chance of survival. The personal representative should be allowed to avoid a new trial by agreeing to delete that award in the sum of \$125,000 from the total damages awarded. In the event that reduction is agreed to, interest on the remaining award shall be computed as provided in the original judgment. The election to accept the remittitur must be made within thirty days of the filing of the procedendo in the district court.

We have considered all issues presented and conclude that the judgment of the district court should be affirmed. A conditional new trial is awarded and the case remanded to the district court for further proceedings consistent with this opinion.

AFFIRMED AND REMANDED.

All justices concur except CADY, J., who concurs specially, and LAVORATO, C.J., and TERNUS, J., who take no part.

CADY, J. (concurring specially).

I concur in the result reached in this case, but write separately to help the bench and bar better

understand and utilize the loss of chance doctrine and to clarify some of the confusion I believe has arisen with its application in our courts. While we have adopted the loss of chance doctrine, we have yet to fully explain how it operates.

A complete understanding of the loss of chance doctrine begins with the venerable concept of causation. The perceived inadequacies and unfairness that resulted from the traditional application of this concept in some medical malpractice cases was the driving force behind our adoption of the loss of chance doctrine.

Seemingly from time immemorial, the concept of causation has served as the axis upon which legal responsibility turns in a negligence action. See W. Page Keeton et al., *Prosser and Keeton on the Law of Torts* §§ 41-45 (5th ed.1984) (collecting and discussing cases and other commentary on the development and application of causation analysis); see also John H. Wigmore, *A General Analysis of Tort-Relations*, 8 Harv. L.Rev. 377, 385-89 (1894-95). However, despite or perhaps because of the concept's importance, its meaning and application have continuously vexed courts and commentators alike. See *Gerst v. Marshall*, 549 N.W.2d 810, 815 (Iowa 1996); see also *Leon Green, Rationale of Proximate Cause* v (1927) ("Whatever may be said, it is undoubtedly the general opinion that the field of legal liability is greatly cluttered by 'proximate causation' and that it needs to be cleaned up.") Not long ago, we recognized inconsistencies in our own causation jurisprudence and took the opportunity to reexamine and synthesize our precedents in this area, confirming that, in Iowa,

under any definition of causation, [the] element has two components: (1) the defendant's conduct must have in fact caused the plaintiff's damages (generally a factual inquiry) and (2) the policy of the law must require the defendant to be legally responsible for the injury (generally a legal question).

Gerst, 549 N.W.2d at 815; see also *Estate of Long v. Broadlawns Med. Ctr.*, 656 N.W.2d 71, 82-83 (Iowa 2002) (applying the *Gerst* definition); *City of Cedar Falls v. Cedar Falls Cmty. Sch. Dist.*, 617 N.W.2d 11, 17 (Iowa 2000) (same); *Scoggins *182 v. Wal-Mart Stores, Inc.*, 560 N.W.2d 564, 566-67 (Iowa 1997) (same).

Causation plays a vital role in a medical malpractice action just as it does in any other negligence action. In proving a case for medical malpractice, a plaintiff has the burden of "demonstrat[ing] the applicable standard of care, the violation of this standard of care, and a causal relationship between the violation and the harm allegedly suffered by the plaintiff." *Phillips v. Covenant Clinic*, 625 N.W.2d 714, 718 (Iowa 2001); see also Iowa Civil Jury Instructions 700.1, 1600.1. The plaintiff must also prove the value of the damages suffered due to the harm caused by the defendant. See *Foggia v. Des Moines Bowl-O-Mat, Inc.*, 543 N.W.2d 889, 893 (Iowa 1996). Of course, these elements, particularly causation, often take on a markedly more complex character in a medical malpractice action, especially in those cases in which alleged negligence combines with a preexisting condition to cause the ultimate harm to the plaintiff, whether it be permanent disfigurement, disability, or even death. See *Wendland*, 574 N.W.2d 327; *Sanders*, 421 N.W.2d

520; DeBurkarte, 393 N.W.2d 131.

In such cases, the application of the standards we have delineated to determine whether a defendant's alleged negligence is the cause of the plaintiff's damages becomes problematic. In fact, some commentators have argued that the application of traditional causation principles to these cases is almost surely to arrive at an unjust result due to the increased difficulty of proving the necessary causal relationship between the action (or inaction) of the defendant and the harm to the plaintiff. See Joseph H. King, Jr., *Causation, Valuation, and Chance in Personal Injury Torts Involving Preexisting Conditions and Future Consequences*, 90 Yale L.J. 1353, 1363-64 (1981) [hereinafter King I]. Under traditional causation principles, the threshold at which an entity is deemed responsible for a plaintiff's injuries is clear-cut: "[u]nless a causal connection is established under the applicable standard of proof (usually requiring that it appear more likely than not), the plaintiff will receive nothing for the loss in question." *Id.* at 1356; see also *Wendland*, 574 N.W.2d at 330. This approach has gained acceptance as the most balanced method by which liability may be determined in most cases, but its clarity (at least theoretically) has also resulted in it being labeled somewhat derisively as the "all-or-nothing approach." See King I at 1363.

The negativity surrounding the traditional causation approach arises partially from the observation that, in cases in which multiple factors come together to cause the plaintiff's injury, the all-or-nothing approach can make a plaintiff's recovery from a tortfeasor more difficult, if not impossible. This is particularly the case when a plaintiff suffers from a preexisting medical condition that is exacerbated by a negligent defendant, for example, a case in which a patient is already suffering from a potentially deadly affliction that proves fatal due, at least in part, to the defendant doctor's delayed diagnosis and failure to begin treatment at an earlier point in time. In such a case, there are, essentially, two causes coinciding to bring about the ultimate harm to the plaintiff: a preexisting condition and the defendant's negligence. Thus, even in a "close" case in which the plaintiff's ultimate harm results in equal parts from the preexisting condition and the defendant's negligence, it is impossible to say the defendant more likely than not caused the harm. In such a situation, the traditional, all-or-nothing approach forecloses the recovery of damages even if the conduct of the defendant was truly negligent in some way. See *id.* at 1363-64.

*183 The difficulties associated with the application of traditional causation principles to cases in which negligence combines with a preexisting condition led some commentators to argue for a new theory on which liability could be premised: loss of chance.^[6] See *id.* at 1354; Leon L. Wolfstone & Thomas J. Wolfstone, *Recovery of Damages for the Loss of a Chance in Personal Injury Annual* 1978 744, 753 (Louis R. Frumer & Marilyn Minzer eds., 1978). The loss of chance doctrine, although now largely understood as a principle sounding in tort, had its origin in a British contract case. Joseph H. King, Jr., "Reduction of Likelihood" Reformulation and Other Retrofitting of the Loss-of-a-Chance Doctrine, 28 U. Mem. L.Rev. 491, 500 (1998) [hereinafter King II]. In that case, the defendant, a "well-known London theatrical manager," conducted a contest to sift the numerous applications he received from aspiring actors into a group of fifty

finalists, from which twelve would be awarded a three-year contract. *Id.* The plaintiff sued after missing her chance to become one of the twelve winners due to the defendant's alleged breach of contract in failing to properly notify her of an upcoming interview. *Id.* In resolving the dispute, "[t]he court held that the plaintiff was entitled to recover even though there was no proof that she had lost a better-than-even chance of winning." *Id.* (footnote omitted). In so recognizing, the court, "in effect, reified chance; what had theretofore been disregarded as an abstraction [(the lost 'opportunity of competition')] was treated as a material object worthy of legal redress." *Id.* (footnote omitted).

Despite this precedent, the modern loss of chance doctrine did not arrive until the publication, in 1981, of Professor Joseph H. King's groundbreaking study of causation and valuation in the torts context. See King I at 1353-97; see also King II at 502 (recognizing "[t]he traditional all-or-nothing rule went largely unchallenged in United States personal injury cases until about [1983]," shortly after the publication of Professor King's original loss of chance article). But see also Hicks v. United States, 368 F.2d 626, 632-33 (4th Cir.1966) (providing an earlier application of a loss of chance theory); Kallenberg v. Beth Israel Hosp., 45 A.D.2d 177, 357 N.Y.S.2d 508, 510-11 (N.Y.App.Div.1974) (same). In that article, widely cited by this court and many others, Professor King presented a coherent and rational argument in favor of an extension of traditional analyses of causation and valuation to recognize "that the loss of a chance of achieving a favorable outcome or of avoiding an adverse consequence should be compensable and should be valued appropriately, rather than treated as an all-or-nothing proposition." King I at 1354. This loss of chance theory was soon integrated into the negligence standards of many jurisdictions. See Zaven T. Saroyan, The Current Injustice of the Loss of Chance Doctrine: An Argument for a New Approach to Damages, 33 Cumb. L.Rev. 15, 26 n. 99 *184 (2002-03) (listing jurisdictions in which "the doctrine of loss of chance has enjoyed acceptance"). However, its application was often limited to the medical malpractice context. King II at 501. But see Gardner v. National Bulk Carriers, Inc., 310 F.2d 284, 287-88 (4th Cir.1962) (loss of chance theory applied in a wrongful death action arising from ship captain's failure to attempt the rescue of a man presumed to have gone overboard); Hake v. Manchester Township, 98 N.J. 302, 486 A.2d 836, 840-42 (1985) (application in a wrongful death action arising from the failure to provide aid to an individual in the immediate aftermath of an attempted suicide). In fact, it is solely within the medical malpractice context that the loss of chance doctrine has developed in Iowa. See Wendland, 574 N.W.2d at 328; Sanders, 421 N.W.2d at 521; DeBurkarte, 393 N.W.2d at 132; see also Beeman v. Manville Corp. Asbestos Disease Comp. Fund, 496 N.W.2d 247, 257 (Iowa 1993).

In DeBurkarte v. Louvar, we considered a number of causation issues surrounding a medical malpractice action arising from alleged negligence in the delayed diagnosis of breast cancer. See 393 N.W.2d at 132. Medical evidence in the case indicated that the afflicted plaintiff's "chances of surviving ten years would have been at least fifty and as high as eighty percent if the lump had been removed" shortly after the plaintiff's first visits to the doctor. *Id.* at 135. However, by the time

of trial, the plaintiff's "chances of surviving another ten years were zero" and one medical expert opined that it was likely that she "would not live more than three years." *Id.* In analyzing this evidence, we noted an important distinction between two potential theories of recovery presented by the case and the underlying causation issues implicit in them:

We recognize that the plaintiff's injury may be viewed as a shortening of her life, in which case we would agree with the defendant that the plaintiffs did not produce substantial evidence on causation: there was no evidence the plaintiff's cancer probably spread after September 1981, preventing her from being cured.... On the other hand, as the Restatement [(Second) of Torts section 323] indicates, her injury may also be viewed as a lost chance to survive the cancer. The jury could then find from the evidence that the defendant's failure to diagnose and treat the cancer probably caused a substantial reduction in the plaintiff's chance to survive it.

Id. (citation and footnote omitted). After making this observation, we went on to adopt the loss of chance doctrine arising out of the Restatement[7] and as augmented by the commentary of Professor King, noting that a number of other jurisdictions had done the same. See *id.* at 135-37. Ultimately, we concluded that permitting "recovery for the lost chance is... the *185 most equitable approach because "[b]ut for the defendant's tortious conduct, it would not have been necessary to grapple with the imponderables of chance" and because "it offers 'the most administrable and consistent method for dealing with many complicated cases.'" *Id.* at 137 (quoting King I at 1378).

Two years later, in *Sanders v. Ghrist*, we considered a challenge to jury instructions that the plaintiffs argued failed to properly encapsulate the loss of chance doctrine approved in *DeBurkarte*. 421 N.W.2d at 521. In *Sanders*, the plaintiffs sought recovery for wrongful death under a number of theories, including loss of chance, alleging the defendant doctor had negligently diagnosed and treated a malignant tumor. *Id.* After examining the submitted instructions, we agreed that they failed to properly "convey to the jury the legal theory on which a lost chance of survival recovery is based." *Id.* at 522. Instead, the instructions permitted only the "'all-or-nothing' liability we rejected in *DeBurkarte*." *Id.* (citing *DeBurkarte*, 393 N.W.2d at 137). For this reason, we reversed the trial court's denial of a motion for new trial, affirming that "[t]he legal theory supporting a recovery for lost chance of survival should be included as part of the proximate cause and the damages instructions." *Id.* at 523.

Our most recent reconsideration of the loss of chance doctrine came in *Wendland v. Sparks*, which involved a wrongful death medical malpractice action premised on the defendant's failure to provide resuscitative care to a woman suffering cardiorespiratory arrest. 574 N.W.2d at 328. *Wendland* provided us the opportunity to decide two important issues related to loss of chance. The first was the determination that loss of chance is not "limited to medical-diagnosis cases," but may arise in any medical malpractice context. See *id.* at 332. We also observed that, in cases "in which the chances of successful [treatment] were questionable and any recovery for wrongful death would be severely limited because of the patient's preexisting condition, even a small chance

of survival is worth something." *Id.* Thus, we concluded that a loss of chance was compensable even if the lost chance involved less than a fifty percent probability of a favorable outcome. *Id.* at 333.

Ultimately, loss of chance is a discrete doctrine that has not yet fully developed within the broader context of tort law. Although there are examples of the doctrine's application in other contexts, it has found its widest acceptance in the medical malpractice context in Iowa and elsewhere. See *Wendland*, 574 N.W.2d at 330; *Beeman*, 496 N.W.2d at 257; *Sanders*, 421 N.W.2d at 521; *DeBurkarte*, 393 N.W.2d at 135; *King II* at 501 ("Most cases to address the loss-of-a-chance issue have arisen in the torts context and have involved medical malpractice claims alleging delayed diagnosis."). This is due in no small part to the very real concern that expanded recognition of the loss of chance doctrine could threaten to swallow whole the equitable, established principles of causation and damages that have guided tort law for centuries. See *Fischer*, 36 Wake Forest L.Rev. at 606-07. These principles have proven over time to be an acceptable balance between the interests of all parties. Our departure from these principles in the medical malpractice area was a concession to the reality that medical malpractice cases that feature alleged negligence combined with a preexisting condition involve a tipping of that balance in a defendant's favor as a result of the defendant's own actions. *DeBurkarte*, 393 N.W.2d at 137. We concluded that this alteration warranted a new theory of causation and damages because "but for the defendant's tortious conduct, it would not have been *186 necessary to grapple with the imponderables of chance." *Id.* (quoting *King I* at 1378). Other courts have come to the same conclusion. See, e.g., *Hicks*, 368 F.2d at 632; *Thompson v. Sun City Cmty. Hosp., Inc.*, 141 Ariz. 597, 688 P.2d 605, 616 (1984) ("Defendant's negligent act or omission made it impossible to find with certainty what would have happened and thus forced the court to look at the proverbial crystal ball in order to decide what might have been."). Of course, the extent to which the doctrine may be applied outside the medical malpractice arena in the future is unknown, and is not at issue in this case.

However, it is important to look back at the history and purpose of the loss of chance doctrine because both help frame an understanding of how it should operate at trial. As is underscored by the arguments advanced by the Estate and Dr. Adrian in this case, significant confusion has arisen around the actual meaning and application of the doctrine in Iowa. This is due in part to its complexity, but also is due to the fact that the doctrine has been the subject of much debate but comparably little resolution. Yet, the history and purpose of the loss of chance doctrine, as well as our prior cases, reveal three key points that guide its application.

First, loss of chance is a separate theory of recovery from a traditional negligence claim that is normally brought as an alternative claim in a traditional negligence action. When the claims are brought together in the same action, the jury must first consider the negligence claim, and in doing so decide whether the defendant's conduct was negligent and caused the injuries alleged. If the plaintiff establishes the negligence claim, the jury does not further consider the loss of chance claim because even if the plaintiff may have also been deprived of a chance to avoid the harm, the

negligence claim allows the plaintiff to recover all damages recognized to be compensable and established by the evidence. The loss of chance doctrine was created only to allow recovery when traditional negligence principles, particularly causation, preclude recovery by a plaintiff despite the existence of negligence by the defendant. Thus, loss of chance damages are only recognized within a loss of chance claim. Consequently, in considering a loss of chance claim, the jury must decide whether the defendant's negligent conduct caused the plaintiff to lose a chance to avoid the ultimate harm. This means it is important in applying the loss of chance doctrine to focus on the defendant's conduct apart from the preexisting condition even though the preexisting condition remains relevant to the contours of the doctrine when it comes to calculating damages. The plaintiff must establish the defendant's negligence was a proximate cause of the lost chance to avoid the ultimate harm, and the instructions to the jury should be set up to reflect this approach. A loss of chance claim includes the basic elements of a traditional negligence claim: duty, breach of duty, causation, and damages.

Second, the injury for which recovery is sought under a loss of chance claim is not the traditional damages associated with a negligence claim, but is the lost chance of avoiding the ultimate harm sustained. See *Alberts v. Schultz*, 126 N.M. 807, 975 P.2d 1279, 1284-85 (1999). Loss of chance becomes a relevant protected interest under the law because the traditional damages available under a negligence claim are not recoverable despite the existence of negligent conduct. Thus, loss of chance is not an additional element of damages alongside other traditional damages in a negligence action, as instructed by the trial court in this case, but it is the damage component of the alternate claim.

*187 Third, a method must exist for the jury to determine the value of the loss of chance. Of the various approaches that have emerged, the most sensible approach is to determine all damages recoverable under a traditional negligence theory and reduce the total by the loss of chance expressed as a percentage. This approach is best aligned with the purpose and scope of the doctrine. It allows the fact finder assessing damages to assess those damages for the lost chance based on the degree of chance lost.

As revealed in this case and other cases, the two most confusing elements of a loss of chance claim can be causation and damages. The first two elements of duty and breach of duty are more straightforward and play out just as they would in an ordinary negligence claim. See *id.* at 1284 ("The basic test for establishing loss of chance is no different from the elements required in other medical malpractice actions."). The plaintiff still must establish the defendant was negligent in his or her treatment or care of the plaintiff. Causation and damages, on the other hand, require a different approach. Not surprisingly, much has been written about these two issues, with commentators offering many theories as to how they interplay for a fact finder's determinations when loss of chance is at issue. See *King I* at 1394-96; *Aagaard*, 96 Mich. L.Rev. at 1340-44.

A loss of chance claim is tied to an ordinary claim for negligence from a factual standpoint because both claims normally originate when a patient seeks medical attention due to some

medical illness, injury, or malady. They separate, however, based on the impact of the preexisting medical condition that gave rise to the need for treatment on the ultimate harm sustained by the plaintiff. Under a claim grounded in ordinary medical malpractice, recovery is for the ultimate harm or injury, together with all other damages leading to the ultimate harm, caused by the defendant's negligence. Yet, this claim cannot be established when the extent and nature of the preexisting medical condition precludes proof to a reasonable degree of medical certainty that the medical negligence was the proximate cause of the ultimate harm. See *Alberts*, 975 P.2d at 1285-86. In contrast, a claim for loss of chance is not based solely on the ultimate harm, but on evidence that the patient had a chance of avoiding the ultimate harm. See *id.* at 1286. Thus, the loss of chance claim is established if the plaintiff can show, to a reasonable degree of medical certainty, a causal connection between the medical negligence and the lost chance. *Id.* The recoverable injury is not the ultimate harm to the patient, but the loss of the chance to survive or overcome the harm, and recovery is consequently predicated on proof that the medical negligence, whether based upon an incorrect diagnosis or improper or untimely treatment, caused the loss of chance for a better outcome. See *id.* at 1285-86. Thus, the proximate cause standard does not change under the loss of chance theory, and the patient asserting a loss of chance claim must show it was more likely than not that the injury (loss of chance) was proximately caused by the medical negligence. See *id.* at 1286. Separate instructions on each the traditional and loss of chance theories of recovery are the best way to present each alternate claim.

Damages under a loss of chance theory do not compensate the entire injury, but instead provide compensation for the reduced chance of avoiding the ultimate injury. *Id.* at 1284-85. This chance to avoid the ultimate harm is the item of value for which a plaintiff may seek compensation under a loss of chance claim. *Id.* Yet, the value of the loss of chance is best demonstrated in light of the actual harm sustained. *188 Otherwise, the value of loss of chance damages would be left to speculation and guesswork. It would be impossible to accurately evaluate the value of the plaintiff's damages for loss of chance without knowing the total value of the ultimate harm caused by both the defendant's negligence and the preexisting condition. Thus, the preexisting condition of the plaintiff and the ultimate harm to the plaintiff continue to be relevant to the determination of damages, just as both are for causation.

There have been numerous theories advanced for calculating the proper valuation of loss of chance damages. See, e.g., *King I* at 1381-87; *Fischer*, 36 *Wake Forest L.Rev.* at 619-21; *Saroyan*, 33 *Cumb. L. Rev.* at 34-39; *Aagaard*, 96 *Mich. L.Rev.* at 1347-60. Yet, a consideration of the bevy of alternatives reveals that the theory of proportional valuation provides the most accurate method of valuation possible.[8] See *King I* at 1381-82. It would appear this is what we had in mind when we first adopted the theory of loss of chance. See *DeBurkarte*, 393 *N.W.2d* at 136 ("We believe the better approach is to allow recovery, but only for the lost chance of survival."). It is also consistent with the underlying theory of loss of chance damages that allows recovery even though full damages are unavailable due to the inability to establish that the defendant alone caused the

ultimate harm. The majority appears to accept the proportional valuation approach as well.

The proportional valuation theory allows for a full consideration of a preexisting condition and the defendant's negligence, which is in line with our approach acknowledging that both are key to the alternative theories of recovery in loss of chance cases. This, in turn, promotes a cohesive factual presentation by the parties and a logical apportionment of damages by the fact finder. Proportional valuation requires the fact finder to determine the total value of the ultimate harm to the plaintiff under traditional damages theories while also ascribing a percentage value to the lost chance caused by the defendant's negligence. See *id.* at 1382. From a practical standpoint, it is best for a court to instruct a jury to ascribe the percentage value to the lost chance. This value is the difference between the plaintiff's prenegligence chance of avoiding the ultimate harm and the plaintiff's postnegligence chance of avoiding the ultimate harm. See *Cahoon v. Cummings*, 734 N.E.2d 535, 540 (Ind.2000); *Alberts*, 975 P.2d at 1287; *Jorgenson v. Vener*, 616 N.W.2d 366, 372 n. 8 (S.D.2000). Once the percentage value is determined, the total value of the ultimate harm to the plaintiff is multiplied by the percentage value to determine the proportion of the monetary damages for which the defendant is responsible.[9] See *King I* at 1382. This amount represents the appropriate valuation for the damages award against a negligent defendant in a case involving a lost chance.[10] Moreover, this method of instructing a jury and calculating the damage award most accurately reflects the present meaning and application of the loss of chance doctrine in Iowa.

Although the majority acknowledges that loss of chance damages should be calculated on a proportional valuation theory, it incorrectly concludes that the only items of damages used to calculate the total damages subject to a proportional reduction are those damages attributable to death, not pre-death damages such as pain and suffering and loss of function. This conclusion strikes a blow to the symmetry that has been developed within the doctrine, and conflicts with the approach we have been developing in our prior cases and that has been followed in most other jurisdictions.

The majority believes pain and suffering and loss of function damages are separately and fully recoverable in a loss of chance claim. Such an approach, however, essentially splits a loss of chance claim into two damage components consisting of damages for the lost chance to avoid the specific ultimate harm and all other damages short of the ultimate harm. It then values the ultimate harm proportionally in light of the lost chance, but awards the full value of the other damages. This position ultimately permits pain and suffering and other nondeath damages to be awarded without the necessity of establishing any causation. The majority fails to consider that the causation element of a loss of chance claim only requires the plaintiff to prove that defendant's negligence caused a lost chance to avoid the ultimate harm. Additionally, the majority fails to consider how its approach would apply to a nondeath case, such as a case where the ultimate harm was an amputated limb. Under the majority's position, only the ultimate harm—the amputated limb—would be proportionally valued. This means the plaintiff, under the majority's approach,

would be awarded a proportion *190 of the loss of function but all pain and suffering damages. Such an approach can find no support among our existing legal principles.

Moreover, the history and purpose of the loss of chance doctrine reveals that it only becomes a viable theory of recovery once it has been determined that the very damages that the majority wants to separately award as a part of a loss of chance claim are not recoverable under the causation principles applicable to a negligence case. Thus, the majority wants to award damages that are precluded by traditional legal principles. Our adoption of loss of chance as a legal theory did not otherwise alter our venerable principles of causation. The majority's position fails to consider that the sole recoverable damage in a loss of chance claim is the lost chance itself, and the means used to calculate this damage is to total all damages and award the percentage of the damages equal to the chance the plaintiff lost to avoid the ultimate harm because of the defendant's negligence.

Considering the role and purpose of the loss of chance theory in a medical malpractice case, it would be incongruous for our law to permit full recovery of some items of damages under a loss of chance theory that could not be recoverable under a traditional negligence theory. The approach adopted by the majority elevates the mere chance to avoid a loss to the same level as the loss itself. Such an approach is totally inconsistent with traditional theories of causation, the loss of chance doctrine, and the body of law that has been developed since we first adopted the doctrine. The proper method of calculating damages is therefore to determine the total value of the plaintiff's injury arising from all the damages sustained, reduced according to the percentage of lost chance. Pain and suffering and loss of function are included in the total damages subject to the reduction. See *Smith v. Washington*, 734 N.E.2d 548, 551 (Ind.2000) (proportional reduction was properly applied to an award for pain and suffering under a loss of chance theory).

In sum, the district court was correct to grant a new trial. A new trial is warranted because the loss of chance claim was not submitted as an alternative theory of recovery to the negligence claim, but was submitted as a blended claim that permitted the jury to award those damages ordinarily recoverable under a negligence claim in addition to the loss of chance damages. This was error, which the trial court properly recognized, warranting the grant of a new trial. While the majority also acknowledges the error, it has done damage to the development of the loss of chance doctrine in its effort to correct this error.

NOTES

[1] Dr. Adrian's employer, Iowa Physician's Clinic Medical Foundation d/b/a Integra Health, is also a defendant on a respondeat superior theory, but our opinion will proceed as if Dr. Adrian was the sole defendant.

[2] Claims were also included for medical expenses, but the personal representative made no attempt to have the court submit those claims to the jury.

[3] In *Wendland v. Sparks*, 574 N.W.2d 327, 329 (Iowa 1998), we held that it is not necessary to plead a theory of lost chance of survival in order to avail a party of that claim.

[4] Some confusion on this issue has resulted from the statement in DeBurkarte that "the better approach is to allow recovery, but only for the lost chance of survival." DeBurkarte, 393 N.W.2d at 137. Dr. Adrian urges that the quoted language means that, when lost-chance-of-survival damages are awarded, no other damages, including predeath damages, are recoverable. We do not find this to be the intent of the quoted language.

[5] Dr. Adrian argued to the district court that in order to sustain a recovery for lost chance of survival there must be expert testimony concerning the probability of survival expressed as a percentage. We believe that when the claim is submitted as an alternative to ordinary wrongful-death damages it is unrealistic to require a claimant who is arguing that it is more probable than not that death resulted from the defendant's negligence to also present evidence that the probability of survival was in fact some lesser percentage. The jury must determine the amount of proportionate reduction based on all of the evidence in the case.

[6] We have traditionally described this doctrine as involving a "lost chance" or the "loss of chance." Wendland, 574 N.W.2d at 329; Sanders v. Ghrist, 421 N.W.2d 520, 521 (Iowa 1988); DeBurkarte, 393 N.W.2d at 135; see also DeMoss v. Hamilton, 644 N.W.2d 302, 305 (Iowa 2002); Beeman v. Manville Corp. Asbestos Disease Comp. Fund, 496 N.W.2d 247, 257 (Iowa 1993). Many commentators and courts have adopted the terminology "loss of a chance" in referring to the same concept. See, e.g., Joseph H. King, Jr., Causation, Valuation, and Chance in Personal Injury Torts Involving Preexisting Conditions and Future Consequences, 90 Yale L.J. 1353, 1354 (1981); Murrey v. United States, 73 F.3d 1448, 1453-54 (7th Cir.1996); Smith v. State, Dep't of Health & Hosps., 676 So.2d 543, 544 (La. 1996). The different terminology has no substantive significance.

[7] The Restatement (Second) of Torts section 323 (1965) provides:

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

(a) his failure to exercise such care increases the risk of such harm, or

(b) the harm is suffered because of the other's reliance upon the undertaking.

We have applied or cited section 323 "with approval on a number of occasions," including instances that did not involve the loss of chance doctrine described in DeBurkarte, Sanders, and Wendland. Estate of Long v. Broadlawns Med. Ctr., 656 N.W.2d 71, 84 n. 6 (Iowa 2002) (collecting cases).

[8] Some jurisdictions permit an award of the plaintiff's full damages under the loss of chance doctrine. Zaven T. Saroyan, The Current Injustice of the Loss of Chance Doctrine: An Argument for a New Approach to Damages, 33 Cumb. L.Rev. 15, 35 n. 181 (2002-03) (collecting cases). Yet, such an award would effectively make defendants liable for both their own negligence and the patient's preexisting condition, even though the condition was not caused by the defendant's

negligent act or inaction. *Cahoon v. Cummings*, 734 N.E.2d 535, 541 (Ind.2000). Proportional valuation, on the other hand, is consistent with our general principles of apportionment of damages in the area of tort liability. See *Foggia v. Des Moines Bowl-O-Mat, Inc.*, 543 N.W.2d 889, 893-94 (Iowa 1996) ("[O]ur general rule limits a defendant's liability to compensation for injuries caused by his own acts of negligence, and not for injury, suffering or impaired health due to other causes." (quoting *Becker v. D & E Distrib. Co.*, 247 N.W.2d 727, 730 (Iowa 1976))). Moreover, it is also the majority rule among other jurisdictions. Todd S. Aagaard, Note, Identifying and Valuing the Injury in Lost Chance Cases, 96 Mich. L.Rev. 1335, 1349 (1998).

[9] The trial court should complete the second portion of this equation in cases in which a jury serves as the fact finder. For this reason, the court must instruct the jury that its evaluation of the damages arising from the ultimate harm to the plaintiff should not include an estimation of the monetary value of the lost chance. Instead, the jury's role is to evaluate the total value of the ultimate harm and designate the percentage of lost chance to avoid that harm. This approach will aid the jury in maintaining the proper separation between the all-or-nothing and lost chance theories, and permit appropriate oversight by the trial court to ensure that the proper amount of damages is awarded.

[10] Some commentators have made strong arguments that the proportional valuation method should not be applied to damages that arise from the lost chance itself and that such damages should be awarded in full. See David A. Fischer, Tort Recovery for Loss of a Chance, 36 Wake Forest L.Rev. 605, 620-21 (2001); Aagaard, 96 Mich. L.Rev. at 1344-47. In the words of one commentator, "The most accurate method of valuing damages [for loss of chance] is to award proportional compensation for damages, such as lost earnings, that should be reduced and to award full recovery for damages, such as extra medical expenses, that should not be reduced." Fischer, 36 Wake Forest L.Rev. at 620-21. Under this theory, if a defendant doctor negligently misdiagnoses an infection that worsens, hastening a death, the plaintiff should be able to fully recover ancillary damage amounts such as the cost of additional doses of antibiotics that would have been unnecessary if a proper diagnosis had been made, and those amounts should not be subject to reduction because they are more closely related to the doctor's negligence rather than the preexisting condition. See *id.* This case does not present the occasion to fully consider and decide this issue.

CARTER, J.

CARTER, Justice.

This is an appeal from the granting of a new trial in a medical malpractice action, which resulted in a substantial verdict for the patient's personal representative. The plaintiff is Patricia Mead, executor of the estate of Lucille Humpal, deceased. The defendant is Dr. Burton Adrian.¹

The grant of a new trial was posited on two grounds: inconsistency in allowing the jury to award both wrongful-death damages and lost-chance damages, and failure to adequately instruct the jury

as to the basis for determining lost-chance damages. After reviewing the record and considering the arguments presented, we affirm the judgment of the district court.

In April 1997 Lucille Humpal was seventy-three years old. During the first few weeks of that month, she began to feel weak and eventually became bedridden. By April 20 she was too weak to get out of bed, and an ambulance was summoned to her home. She was delivered to the emergency room of a Waterloo hospital. After a series of tests, she was released.

The results of a blood analysis revealed that Mrs. Humpal's white blood cell count was 27,000. When that result was shared with her personal physician, Dr. Burton Adrian, he ordered that she be admitted to the hospital as an inpatient. She entered the hospital at 9:30 a.m. on April 21.

At the time of her hospital admission, Mrs. Humpal had a distended abdomen and was complaining of severe lower abdominal pain. Dr. Adrian saw her in the hospital that afternoon. His tentative diagnosis of her condition was an infection of the urinary tract. Because she had indicated to hospital personnel at the time of her admission that she could not recall having any recent bowel movements, Dr. Adrian ordered laxatives and enemas. X-rays taken at this time were inconclusive.

Over the next four days, Mrs. Humpal received five enemas, but they produced no relief from her abdominal pain. Her abdomen continued to be distended and by April 24 had attained the size of a basketball. On April 25 Dr. Adrian suspected diverticulitis. He ordered additional x-rays, which revealed that Mrs. Humpal's colon had ruptured. Emergency surgery revealed an advanced infection of the area surrounding the ruptured colon. Mrs. Humpal died while the surgery was in progress. It was subsequently determined that she had been suffering from diverticulitis. Her cause of death was determined to be toxicity resulting from a spread of bacteria secondary to a ruptured diverticulum. Other facts that bear on the disposition of the appeal will be considered in our discussion of the legal issues presented.

I. The Issues Submitted to the Jury.

In her petition in this action, Mrs. Humpal's personal representative claimed wrongful-death damages based on the alleged negligence of Dr. Adrian. The elements of damage requested in the petition included loss of accumulation to the decedent's estate, interest on funeral and burial expenses, and physical and mental suffering.² During the trial, there were amendments¹⁷⁷ to conform to proof that added claims for predeath loss of full mind and body and lost chance of survival.³ In addition, the personal representatives asked to amend to conform to proof and include claims for loss of services and support recoverable under Iowa Code section 613.15 (2001). That request was denied by the court as untimely.

At the conclusion of plaintiffs evidence, Dr. Adrian moved for a directed verdict. That motion was sustained with respect to the claim for loss of accumulation by the estate on the ground that there was insufficient evidence of such loss. The motion was overruled as to the other items of damage.

The items of damage submitted for the jury's consideration were:

interest on burial expenses

predeath physical and mental pain and suffering

predeath loss of full mind and body

lost chance of survival

As to all of these items of damage, the jury was instructed that to recover the personal representative must prove that the damages claimed were proximately caused by Dr. Adrian's negligence and the amount of the damages. With respect to the claim for lost chance of survival, the jury was instructed:

Damages recoverable [for this item] are limited to the value of this loss of chance. This is measured by the difference between the chance of survival if treatment had been given at the earlier time, and the chance of survival at the time when treatment was given. Plaintiff may not recover for harm caused by the preexisting condition to which defendant's negligence did not contribute.

The jury found that the following damages were proximately caused by Dr. Adrian's negligence:

interest on burial expense \$ 3,500

predeath physical and mental pain and suffering \$100,000

predeath loss of full mind and body \$ 25,000 lost chance of survival \$125,000

TOTAL \$253,500

II. The Motion for New Trial.

Following the jury's verdict, Dr. Adrian filed a motion for new trial in which he urged:

[The court submitted] both the traditional "all or nothing" damages and "lost chance of survival" damages to the jury. Both theories should not have been submitted to the jury. Submittal of both theories was not in accordance with Iowa law and resulted in improper, du-plicative and excessive damages being awarded by the jury under the court's instructions. Plaintiff was fully compensated by the jury's award of damages for the traditional elements for wrongful death allowed by Iowa law. Nevertheless, the court's instructions allowed the jury to award an additional lump sum of \$125,000 for the "lost chance of survival." Since it cannot be determined whether the jury found for plaintiff on the "all or nothing" theory or the "lost chance of survival" theory, a new trial is required.

The district court granted a new trial for the reasons urged in Dr. Adrian's motion and also for the reason that "the jury was not properly instructed on how to compute those [lost chance of survival] damages." The grant of a new trial was conditional on Mrs. Humpal's personal representative not agreeing to a remittitur of \$125,000, the amount awarded for lost chance of survival*178a. The personal representative did not agree to the remittitur.

The personal representative urges that both traditional death damages and lost-chance damages may be submitted to the jury. In addition, she contends that in the present case the recovery for lost-chance damages was not inconsistent with or du-plicative of the other damages awarded. To resolve this contention, we must consider the basis for recovering damages under a theory of lost chance of survival.

This court has considered allowing damages for lost chance of survival on three prior occasions. The case of *DeBurkarte v. Louvar*, 393 N.W.2d 131 (Iowa 1986), was an action by a plaintiff who was still living and seeking to recover damages for medical malpractice that would shorten her life expectancy. Traditional wrongful-death damages were not an issue because death had not occurred. Although the doctrine of lost chance of survival was discussed and approved in our opinion, there was no issue with regard to damages to be allowed under that theory. The district court's instructions in that case had limited recovery to past, unreimbursed medical expenses caused by the physician's negligence and past and future pain and suffering, including mental anguish. Consequently, the damage issue on appeal only concerned a sufficiency of the evidence to support the verdict under those instructions.

In *Sanders v. Ghrist*, 421 N.W.2d 520 (Iowa 1988), a claim was made that a doctor negligently failed to diagnose and treat a malignant tumor. A traditional wrongful-death recovery was sought against the doctor, and in addition a claim was made for "lost chance to survive the disease." *Sanders*, 421 N.W.2d at 521. The trial court submitted the traditional wrongful-death damages to the jury but declined the plaintiffs request to submit a claim for lost chance of survival. In a general verdict, the jury rejected the traditional wrongful-death claim. We held that the jury should have been given the opportunity to consider the alternative claim of lost chance of survival and that the trial court erred in not so instructing the jury. A new trial was ordered on all issues.

In *Wendland v. Sparks*, 574 N.W.2d 327 (Iowa 1998), a medical malpractice action was based on the failure of a doctor to attempt to resuscitate a patient. Based on deposition testimony by expert witnesses that the patient's chance of survival was less than probable, the district court granted summary judgment for the defendants. Although lost chance of survival had not been pleaded, it was raised in the personal representative's resistance to the motion for summary judgment. Among the summary judgment papers was deposition testimony indicating that the decedent had a ten percent chance of survival if resuscitation had been undertaken. We concluded that this was sufficient to permit a trier of fact to find that the decedent had sustained a loss for which damages could be awarded.

As developed in our case law, the last-chance-of-survival doctrine is not an alteration of the traditional rules for determining proximate cause, but, rather, the creation of a newly recognized compensable event to which those traditional rules apply. It is manifest from the *Sanders* and *Wendland* decisions that a personal representative may recover damages for a lost chance of survival as an alternative to a traditional wrongful-death recovery. Recovery in such instances is for the lost chance of survival "evaluated independently." *Wendland*, 574 N.W.2d at 331. We have recognized in a medical malpractice case in which death could be attributed to a preexisting condition that the amount of the damages for lost chance of survival is "the percent of lost chance attributed to the intervening act of negligence." *Id.* This is consistent with our general rule limiting the defendant's liability to compensation for injuries "caused by his own acts of negligence and not for injury, suffering or impaired health due to other causes." *Becker v. D & E*

Distrib. Co., 247 N.W.2d 727, 730 (Iowa 1976). This appears to be the general rule for valuing lost chance of survival. See Todd S. Aagaard, *Identifying and Valuing the Injury in Lost Chance Cases*, 96 Mich. L.Rev. 1335, 1349 (1998) (collecting cases). It means that a decedent with a ten percent chance of survival is entitled to recover ten percent of the amount of damages that could have been awarded if the defendant's negligence had proximately caused the death.

In the application of these principles, it is important to identify the damages that are to be proportionately reduced to arrive at an award for lost chance of survival. Logically, this should be the amount of damages attributable to the death as such and should not include pre-death elements of recovery such as pain and suffering, loss of full mind and body, and increased medical expenses.⁴ We have recognized damages attributable to the death as such include:

1. The present worth or value of the estate, which the decedent would reasonably be expected to have accumulated between the time of death and the end of the decedent's natural life expectancy.
2. An award of interest on the reasonable funeral expenses of decedent for the length of time that they were prematurely incurred not to exceed the reasonable costs of a funeral for a person of decedent's social and financial standing.
3. The value of services and support recoverable by a designated beneficiary under Iowa Code section 613.15.

Schmitt v. Jenkins Truck Lines, Inc., 170 N.W.2d 632, 661 (Iowa 1969). One seeking to recover these damages may also recover predeath damages under our survival statute, see *Fitzgerald v. Hale*, 247 Iowa 1194, 1198, 78 N.W.2d 509, 511 (1956), but those damages are not attributable to a decedent's death because they may be recovered in instances where death has not occurred.

Predeath injuries, if proximately caused by the defendant's negligence, are recoverable in full. They may be recovered in addition to the amount awarded for lost chance of survival. See David A. Fischer, *Tort Recovery for Loss of a Chance*, 36 Wake Forest L.Rev. 605, 620-21 (2001) ("The most accurate method of valuing damages [for lost chance of survival] is to award proportional compensation for damages, such as lost earnings, that should be reduced and to award full recovery for damages, such as extra medical expenses, that should not be reduced."). Although such damages may be challenged based on insufficient proof, they are recoverable to the full extent that the evidence supports the jury's award. In the present case, Mrs. Humpal's preexisting condition may have made it difficult to separate the amount of the predeath damages that were caused by Dr. Adrian's negligence from those that flowed from the preexisting condition. Nevertheless, there was evidence *180 from which the jury could make that separation. It acted under instructions limiting recovery to only those damages that were proximately caused by the defendant's negligence. We must assume that it did this. Consequently, there is no basis for reducing this portion of the recovery under the proportional-reduction analysis that applies to damages awarded for lost chance.

The Sanders case is similar to the present case in that it involved alternative claims for traditional wrongful-death damages. Implicit in the reversal and remand that was ordered was a recognition

that such claims may be asserted in the alternative. We are convinced that this should be allowed because a trier of fact might fail to find on the evidence that a negligent act was a proximate cause of a patient's death yet believe that the negligence deprived the patient of a chance to survive. However, if both a traditional wrongful-death claim and a lost-chance-of-survival claim are submitted, the proportionally reduced recovery for lost chance would be included within and duplicated by an award of traditional wrongful-death damages.

In the present case, the district court found that the proof of medical causation was sufficient to submit an ordinary wrongful-death claim to the jury. At the request of the personal representative, it also submitted a claim for lost chance of survival.⁵ The ordinary wrongful-death claim was severely limited because the court ruled that there was no evidentiary support for a loss of accumulation to the estate. It also ruled that the claims for loss of services and support had not been timely asserted.

The only element of an ordinary wrongful-death recovery submitted to the jury was interest on burial expenses. Although the recovery allowed for that item was small when compared to the rest of the verdict, we believe it was nevertheless improper to allow an award for lost chance of survival when the jury found from the evidence that ordinary wrongful-death damages were proximately caused by the defendant's negligence. The nature of a claim for lost chance of survival is such that it must be proportionally less than a recovery for traditional wrongful-death damages for the same decedent in the same case. Consequently, the trial court was correct in sustaining Dr. Adrian's motion for a new trial.

III. The Remittitur Issue.

Dr. Adrian has attempted to appeal from that portion of the district court's order conditioning the grant of a new trial on the refusal of the personal representative to accept a reduced award. There is no legal basis for pursuing such an appeal. Once the personal representative appealed the district court's order for a new trial, the conditional feature of that order became of no force and effect. Iowa R. Civ. P. 1.1010(3). Notwithstanding rule 1.1010(3), this court is free to impose its own conditions for sustaining the district court's grant of a new trial. *Larsen v. United Fed. Sav. & Loan Ass'n*, 300 *181 N.W.2d 281, 289 (Iowa 1981); *Miller v. Young*, 168 N.W.2d 45, 58 (Iowa 1969). In considering whether to do that, we give deference to Dr. Adrian's arguments in his purported cross-appeal, but believe that this is clearly a case calling for a conditional new trial.

The damages were itemized by the jury. The only element of damage challenged as improper in the motion for new trial was the award for lost chance of survival. The personal representative should be allowed to avoid a new trial by agreeing to delete that award in the sum of \$125,000 from the total damages awarded. In the event that reduction is agreed to, interest on the remaining award shall be computed as provided in the original judgment. The election to accept the remittitur must be made within thirty days of the filing of the pro-cedendo in the district court.

We have considered all issues presented and conclude that the judgment of the district court should be affirmed. A conditional new trial is awarded and the case remanded to the district court for

further proceedings consistent with this opinion.

AFFIRMED AND REMANDED.

All justices concur except CADY, J., who concurs specially, and LAVORATO, C.J., and TERNUS, J., who take no part.

. Dr. Adrian's employer, Iowa Physician's Clinic Medical Foundation d/b/a Integra Health, is also a defendant on a respondeat superior theory, but our opinion will proceed as if Dr. Adrian was the sole defendant.

. Claims were also included for medical expenses, but the personal representative made no attempt to have the court submit those claims to the jury.

. In *Wendland v. Sparks*, 574 N.W.2d 327, 329 (Iowa 1998), we held that it is not necessary to plead a theory of lost chance of survival in order to avail a party of that claim.

. Some confusion on this issue has resulted from the statement in *DeBurkarte* that "the better approach is to allow recovery, but only for the lost chance of survival." *DeBurkarte*, 393 N.W.2d at 137. Dr. Adrian urges that the quoted language means that, when lost-chance-of-survival damages are awarded, no other damages, including predeath damages, are recoverable. We do not find this to be the intent of the quoted language.

. Dr. Adrian argued to the district court that in order to sustain a recovery for lost chance of survival there must be expert testimony concerning the probability of survival expressed as a percentage. We believe that when the claim is submitted as an alternative to ordinary wrongful-death damages it is unrealistic to require a claimant who is arguing that it is more probable than not that death resulted from the defendant's negligence to also present evidence that the probability of survival was in fact some lesser percentage. The jury must determine the amount of proportionate reduction based on all of the evidence in the case.