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MARY CARRANO, ADMINISTRATRIX (ESTATE
OF PHILLIP J. CARRANO, JR.), ET AL. *v.*
YALE-NEW HAVEN HOSPITAL ET AL.
(SC 17286)

Borden, Katz, Vertefeuille, Zarella and Karazin, Js.

Argued November 30, 2005—officially released August 22, 2006

Thomas J. Weihing, with whom were *Brian Mangines* and on the brief, *John T. Bochanis* and *Thomas E. Mangines*, for the appellants (named plaintiff et al.).

Jeffrey R. Babbitt, with whom, on the brief, was *Kenneth D. Heath*, for the appellees (named defendant et al.).

William M. Bloss filed a brief for the Connecticut Trial Lawyers Association as amicus curiae.

Opinion

VERTEFEUILLE, J. This certified appeal¹ arises out of a medical malpractice action brought by the named plaintiff, Mary Carrano (plaintiff), individually and as administratrix of the estate of her husband, Phillip J. Carrano, Jr. (decedent),² against the defendants Yale-New Haven Hospital, Garth Ballantyne, a gastrointestinal surgeon, and Mary Harris, a registered nurse, for the wrongful death of the decedent.³ The plaintiff claims that the Appellate Court improperly reversed the judgment of the trial court, which had rendered judgment in favor of the plaintiff in accordance with a jury verdict. *Carrano v. Yale-New Haven Hospital*, 84 Conn. App. 656, 854 A.2d 771 (2004). Specifically, the plaintiff claims that the Appellate Court improperly concluded that: (1) the defendants were entitled to a new trial because the trial court improperly had awarded the plaintiff peremptory challenges not required by law; *id.*, 659–63; and (2) the plaintiff had presented insufficient evidence of economic damages. *Id.*, 658 n.3. The defendants, in addition to raising various alternate grounds for affirmance of the Appellate Court’s judgment,⁴ request modification of the relief ordered by the Appellate Court pursuant to Practice Book § 84-11 (b).⁵ Specifically, the defendants claim that they are entitled to

judgment as a matter of law, rather than a new trial, because the evidence of causation was insufficient. We conclude that: (1) the trial court's award of peremptory challenges not required by law was harmless; (2) the evidence of the decedent's net earnings from disability income was insufficient to support an award of economic damages; and (3) the evidence of causation was sufficient to support the verdict. Accordingly, we reverse the judgment of the Appellate Court.

The jury reasonably could have found the following facts. On February 24, 1992, the decedent was admitted to Bridgeport Hospital for the treatment of an infected finger. While at Bridgeport Hospital, the decedent began to experience painful complications from a preexisting condition of Crohn's disease, which is an inflammatory disease of the gastrointestinal tract. On March 11, the decedent was transferred to Yale-New Haven Hospital (hospital). Thereafter, on March 20, Ballantyne, the decedent's attending physician, performed a colonoscopy on the decedent to determine whether and to what extent surgery would be an appropriate next step in treating his Crohn's disease. On or around that time, the decedent developed peripheral edema, or swelling of his arms and legs caused by excess fluid. On March 21, despite the peripheral edema, the decedent was discharged from the hospital. He died at home early the next morning from pulmonary edema, or excess fluid in his lungs.

Thereafter, the plaintiff filed the present medical malpractice action against the defendants. The jury found in favor of the plaintiff and awarded damages in the amount of \$3,386,177.85.⁶ The trial court rendered judgment in accordance with the verdict, and the defendants appealed from the judgment of the trial court to the Appellate Court. The Appellate Court reversed the judgment of the trial court and remanded the case to that court for a new trial. *Carrano v. Yale-New Haven Hospital*, supra, 84 Conn. App. 667. Specifically, the Appellate Court concluded that the trial court had abused its discretion in awarding the plaintiff peremptory challenges not required by law, and that a "new trial [was] the only appropriate remedy" *Id.*, 662. Because the issue was likely to recur at retrial, the Appellate Court also addressed the defendants' claim that the plaintiff had presented insufficient evidence of economic damages. *Id.*, 658 n.3. The Appellate Court concluded that this claim "merit[ed] little discussion" because "[t]he plaintiff's evidence of economic damages was inadequate as a matter of law." *Id.* The Appellate Court declined to address the defendants' claim that the plaintiff had presented insufficient evidence of causation because it already had determined that a new trial was required. *Id.* This certified appeal followed.

improperly concluded that the trial court had abused its discretion in awarding the plaintiff peremptory challenges not required by law. Specifically, the plaintiff claims that, pursuant to General Statutes (Rev. to 2001) § 51-243 (a)⁷ and *Kalams v. Giacchetto*, 268 Conn. 244, 842 A.2d 1100 (2004), the trial court properly exercised its discretion when it awarded twelve additional challenges to the plaintiff to equalize the number of challenges collectively awarded to the defendants. Alternatively, the plaintiff claims that if we conclude that the trial court had abused its discretion, the improper award was harmless. The defendants respond that, pursuant to § 51-243 (a) and *Kalams*, the trial court has discretion to award additional peremptory challenges to both sides of the litigation only if extraordinary circumstances arise during jury selection. Because the trial court had awarded additional challenges solely to the plaintiff prior to the commencement of jury selection, the defendants maintain that the award was improper. The defendants further claim that the improper award cannot be deemed harmless because it fundamentally altered the composition of the jury. We need not address the propriety of the trial court's award because we conclude that the award was harmless.

The following additional facts are relevant to our resolution of the plaintiff's claim. On April 26, 1994, the plaintiff filed the present medical malpractice action against the three defendants and two other physicians, Andrew Elliot and Elton Cahow.⁸ Prior to jury selection, the defendants moved for four peremptory challenges to be awarded to each defendant. Specifically, the defendants claimed that they lacked a "unity of interest" and, therefore, were each entitled to a minimum of four peremptory challenges pursuant to § 51-243 (a).⁹ The trial court agreed with the defendants and awarded the requested challenges, resulting in an aggregate number of twenty peremptory challenges for the defense. The trial court also, sua sponte and over the objection of the defendants, increased the number of peremptory challenges awarded to the plaintiff from eight to twenty¹⁰ to equalize the number of challenges allocated to both sides of the litigation. The court reasoned that a discretionary award of additional challenges to the plaintiff was necessary to avoid "a gross miscarriage of justice" ¹¹ During jury selection, the plaintiff exercised fifteen peremptory challenges, and the defendants exercised seventeen.

At the close of evidence, the trial court directed a verdict in favor of Elliot and Cahow, and submitted the plaintiff's claim against the three remaining defendants to the jury. The jury found in favor of the plaintiff, and the trial court rendered judgment in accordance with the verdict. Thereafter, the defendants appealed from the judgment of the trial court to the Appellate Court, claiming in relevant part that the trial court had violated

§ 51-243 (a) and abused its discretion when it awarded the plaintiff peremptory challenges not required by law. *Carrano v. Yale-New Haven Hospital*, supra, 84 Conn. App. 659–63. The Appellate Court agreed with the defendants and reversed the judgment of the trial court. *Id.*, 663. The Appellate Court acknowledged that in *Kalams v. Giacchetto*, supra, 268 Conn. 263–64, this court had concluded that a trial court has discretion to award peremptory challenges not required by law, and that, in determining whether a trial court has abused that discretion a reviewing court must consider whether the “granting of the challenges harmed either party or was inconsistent with an efficient and orderly judicial process.” (Internal quotation marks omitted.) *Carrano v. Yale-New Haven Hospital*, supra, 661. The Appellate Court concluded, however, that “a careful reading of *Kalams* reveals a narrow discretion” only to “grant *each side* in litigation additional challenges”;¹² (emphasis in original) *id.*; and, therefore, the trial court in the present case “was constrained by the number of peremptory challenges allowed by [General Statutes (Rev. to 2001)] §§ 51-241 and 51-243 (a).” *Id.* The Appellate Court further concluded that the improper award had harmed the defendants because “the plaintiff’s receipt of twelve more challenges than that to which she was entitled (of which she used seven) fundamentally altered the composition of the jury that decided the case in her favor.” *Id.*, 662. Moreover, a new trial was deemed to be the only appropriate remedy “because the use of the challenges at the original trial can never be reconstructed. If each [side had the appropriate number of] challenges, a wholly different panel might have been selected.” (Internal quotation marks omitted.) *Id.*

Before addressing the substance of the plaintiff’s claim, we briefly review our jurisprudence concerning a trial court’s award of peremptory challenges not required by law. In *Kalams v. Giacchetto*, supra, 268 Conn. 261–62, the trial court improperly had determined that § 51-243 (a) entitled each side of the litigation to eight peremptory challenges, rather than four.¹³ We concluded, however, that the improper award of additional challenges was subject to harmless error review.¹⁴ In arriving at this conclusion, we rejected the plaintiff’s claim that harmless error review would “effectively . . . render all such [improper awards] unreviewable,” reasoning that the unreviewability of such awards only could be attributed to the fact that they “are highly unlikely to cause harm.” *Id.*, 262. We further concluded that the improper award was harmless because there was no “plausible claim that the granting of four additional challenges to each party prejudiced [the plaintiff’s] case in any way or unduly protracted the jury selection proceedings.” *Id.*, 261. With respect to the latter consideration, we noted that “it would hardly promote judicial efficiency to order a new trial because jury selection took too long.” *Id.*, 261 n.12.

“Because the issue [was] likely to be an ongoing source of confusion,” we proceeded “to clarify the scope of the trial court’s authority to grant peremptory challenges not required by law.” *Id.*, 262. After reviewing case law in which this court and the Appellate Court had recognized the trial court’s authority to grant additional peremptory challenges, we concluded that there was “no reason . . . categorically to bar the trial court from granting such challenges.” *Id.*, 262–63. We reasoned that it would “only undermine judicial efficiency” if we were to conclude that “the trial court must declare a mistrial and begin jury selection anew when the granting of additional challenges would be adequate to prevent any potential harm to the parties.” *Id.*, 263. Moreover, the case law suggested that “there are numerous circumstances under which trial courts may perceive a need to grant additional challenges not required by law.” *Id.* Accordingly, we concluded that a trial court’s award of additional peremptory challenges is subject to review for abuse of discretion and, “[i]n conducting that review, we consider whether the granting of the challenges harmed either party or was inconsistent with an efficient and orderly judicial process.” *Id.*, 263–64. We did not review the trial court’s award in *Kalams* for abuse of discretion, however, because “the trial court ruled that the parties were entitled to eight peremptory challenges as of right . . . [and] [t]his court ordinarily will not uphold an erroneous legal determination on the ground that the trial court could have exercised its discretion to reach the same result.” (Internal quotation marks omitted.) *Id.*, 263–64 n.13.

Pursuant to *Kalams*, the method of reviewing a trial court’s award of peremptory challenges not required by law will differ depending on the source of the trial court’s authority to award such challenges. If a trial court’s award is premised on its interpretation of the number of peremptory challenges required by § 51-243 (a), the propriety of the award is reviewed de novo. See, e.g., *id.*; *Greco v. United Technologies Corp.*, 277 Conn. 337, 348, 890 A.2d 1269 (2006) (“we review de novo the trial court’s construction of the relevant statutory provisions”). If the reviewing court determines that the award of additional challenges was improper, a new trial is required only if the complaining party can demonstrate harm. If, however, the trial court’s award is premised on its exercise of discretion to award peremptory challenges not required by law, the propriety of the award is reviewed for an abuse of discretion. *Kalams v. Giacchetto*, *supra*, 268 Conn. 263–64; see also *Walsh v. Stonington Water Pollution Control Authority*, 250 Conn. 443, 465–66, 736 A.2d 811 (1999) (“trial court has discretion to determine the complete question of whether several plaintiffs or several defendants will be considered a single party, that is, whether there is a unity of interest among them, and if there is, whether that unity of interest will trigger a limit on the number of

peremptory challenges to be granted”). In determining whether the trial court has abused its discretion, a reviewing court must “consider whether the granting of the challenges harmed either party or was inconsistent with an efficient and orderly judicial process.” *Kalams v. Giacchetto*, supra, 264. Under both paradigms, therefore, a new trial is not required unless the parties suffered harm as a consequence of the trial court’s improper award. Because we conclude hereinafter that the trial court’s award was harmless, we need not determine whether the trial court improperly awarded peremptory challenges not required by law in violation of § 51-243 (a), or whether the trial court overstepped the bounds of its discretion by awarding twelve additional challenges to the plaintiff sua sponte.¹⁵ Regardless of the propriety of the trial court’s award, a new trial is not required because neither party suffered harm.

The defendants claim, however, that, although a trial court’s award of peremptory challenges not required by law to *both sides* of the litigation is subject to harmless error review, a trial court’s award to *one side* of the litigation defies such review. Specifically, the defendants claim that a one-sided award of additional challenges results in structural error and necessitates a new trial. We reject this claim. In *Kalams*, we concluded that a trial court’s award of peremptory challenges not required by law must be reviewed for harm; *id.*, 263–64; and nothing therein suggests that this conclusion is limited to awards to both sides of the litigation. Moreover, we can perceive no reason why an award of additional challenges to one side of the litigation should be treated differently than an award to both sides.¹⁶ Although it may be easier for the complaining party to demonstrate harm if only one side of the litigation or one party is awarded additional challenges; *cf. id.*, 261–62 (award of additional challenges to both sides of litigation “highly unlikely to cause harm”); it is inconsistent with *Kalams* to dispense with the inquiry into harm altogether. Accordingly, we conclude that awards of peremptory challenges not required by law are subject to harmless error review, regardless of whether one or both sides of the litigation, or one or more parties, are the recipients.¹⁷

We now turn to the merits of the plaintiff’s claim. The plaintiff contends that the Appellate Court improperly concluded that the defendants suffered harm because the additional challenges awarded to the plaintiff “fundamentally altered the composition of the jury that decided the case in [the plaintiff’s] favor.” *Carrano v. Yale-New Haven Hospital*, supra, 84 Conn. App. 662. We agree. In every case in which a trial court awards peremptory challenges not required by law, and the recipient of the award exercises some or all of those challenges, the composition of the jury necessarily is different than it otherwise would have been. For example, in *Kalams*, the trial court awarded each party nine

peremptory challenges,¹⁸ and each party had exercised at least six of those challenges. *Kalams v. Giacchetto*, supra, 268 Conn. 257–58. The parties, however, legally were entitled only to four challenges each. *Id.*, 261. Because the parties both exercised two more challenges than that to which they legally were entitled, the trial court’s award of additional challenges necessarily altered the composition of the jury. Specifically, four prospective jurors were excluded who, it is reasonable to assume, otherwise would have sat on the jury. The exclusion of these jurors may have altered the composition of the jury, but, as we concluded in *Kalams*, the parties did not suffer harm as a consequence.

The defendants nevertheless maintain that the Appellate Court properly concluded that the defendants had suffered harm as a result of the trial court’s award. Essentially, the defendants appear to claim that the jury was not fair and impartial because the plaintiff had “the opportunity to shape the jury to [her] advantage.” *Randle v. Allen*, 862 P.2d 1329, 1334 (Utah 1993) (improper award of peremptory challenges not required by law defies harmless error review). We are not persuaded. “Peremptory challenges are . . . not for the purpose of securing a jury biased for one’s side or against the opponent’s side. On the contrary, a primary purpose of peremptory challenges is to help secure an impartial jury. They permit each party to reject certain prospective jurors whom they believe, but cannot demonstrate, harbor some latent predisposition against their position or for the opponent’s position.

“Peremptory challenges are thus not an end in themselves, but rather a means to an end: an impartial jury. Where a party receives an impartial jury, the issue of peremptories is moot. The question is thus whether [the parties] obtained a fair jury despite the imbalance of peremptories.” *Bohna v. Hughes, Thorsness, Gantz, Powell & Brundin*, 828 P.2d 745, 762–63 (Alaska 1992); see also *United States v. Marchant & Colson*, 25 U.S. (12 Wheat.) 480, 482, 6 L. Ed. 700 (1827) (“The right of peremptory challenge is not of itself a right to select, but a right to reject jurors. It excludes from the panel those whom the [party] objects to, until he has exhausted his challenges, and leaves the residue to be drawn for his trial according to the established order or usage of the [c]ourt. . . . The right, therefore, of challenge, does not necessarily draw after it the right of selection, but merely of exclusion. It enables the [party] to say who shall not try him; but not to say who shall be the particular jurors to try him.”). A party who exercises peremptory challenges not required by law does not shape the jury to her advantage, but, rather, excludes prospective jurors whom she suspects are biased against her or partial to the opposing party. The result is not a biased jury, but a fair and impartial one.¹⁹

We do not intend to imply, however, that every award

of peremptory challenges not required by law is harmless. If one party is permitted to exclude additional jurors, but another party who perceives a need to exclude additional jurors is denied an equal opportunity to do so, harm may result. As a threshold to demonstrating such harm, however, the complaining party must exhaust all of her own peremptory challenges and request additional challenges.²⁰ See, e.g., *Connecticut Mutual Life Ins. Co. v. Hillmon*, 188 U.S. 208, 212, 23 S. Ct. 294, 47 L. Ed. 446 (1903) (“[t]he only effect of allowing the plaintiff [peremptory challenges not required by law] was to put three additional men on the jury, whom the defendant could not challenge, and if it had exhausted its peremptory challenges it might perhaps claim to have been prejudiced by the fact that three men had been put upon the jury which it was not entitled to challenge; but having failed to exhaust its peremptory challenges, it stands in no position to complain that it was deprived of the right to challenge others”); *Bohna v. Hughes, Thorsness, Gantz, Powell & Brundin*, supra, 828 P.2d 762–63 (complaining party must exhaust peremptory challenges to establish harm); *Dept. of Public Works & Buildings v. American National Bank & Trust Co.*, 36 Ill. App. 3d 439, 446–47, 343 N.E.2d 686 (1976) (same); *St. Luke Evangelical Lutheran Church, Inc. v. Smith*, 318 Md. 337, 344, 568 A.2d 35 (1990) (complaining party could not establish harm because record did not reveal whether she had exhausted peremptory challenges); *Fick v. Wolfinger*, 293 Minn. 483, 487, 198 N.W.2d 146 (1972) (“[a] fair trial for [the] plaintiff requires trial by an impartial jury, but the adverse verdict does not, without more, demonstrate that he was deprived of such a trial”); *Stevens v. Union R. Co.*, 26 R.I. 90, 106, 58 A. 492 (1904) (“the law is concerned rather with the fairness of the trial and the impartiality of the jurors than with the particular jurors who compose the jury and render the verdict”); cf. *State v. Esposito*, 223 Conn. 299, 312–13, 613 A.2d 242 (1992) (party improperly denied challenge for cause must request, and be denied, additional peremptory challenge). The defendants in the present case did not exhaust their peremptory challenges, and did not request additional challenges.²¹ Moreover, the defendants do not claim that any individual juror who served on the jury was biased against them, or that they were prejudiced by protracted jury selection proceedings.²² The record therefore does not support the defendants’ claim that they suffered harm as a result of the trial court’s award of additional challenges and, accordingly, even if we were to assume *arguendo* that the award was improper, a new trial is not required.

II

The plaintiff next claims that the Appellate Court improperly concluded that nontestimonial evidence normally is required to prove economic damages to a reasonable certainty. The defendants respond that the

Appellate Court properly concluded that disability benefits, as a defined income stream, must be established through nontestimonial evidence. The defendants further claim, as an alternate ground for affirmance, that the plaintiff's evidence of economic damages was insufficient because expert testimony was necessary to assist the jury in adjusting the award to account for the decedent's personal living expenses, income taxes and the net present value of future income.²³ We conclude that testimonial evidence is sufficient to establish economic damages to a reasonable certainty. We further conclude, however, that the evidence of economic damages in the present case was insufficient because the plaintiff failed to introduce any evidence, expert or otherwise, concerning the decedent's income taxes and personal living expenses.²⁴

The plaintiff testified as to the following relevant facts concerning the decedent's disability income. The decedent was hired at Sikorsky Aircraft (Sikorsky) in 1979 as a tool design illustrator; and by 1989, he had been promoted to a toolmaker and was receiving an annual salary of approximately \$40,000. In that same year, however, the decedent went on medical disability leave because of his Crohn's disease. While on medical leave, the decedent received disability income both from Sikorsky and social security. Specifically, the plaintiff testified that "once social security kicked in, then the Sikorsky disability would pay less what social security—you know, he had a set amount and they'd subtract what social security gave him." According to the plaintiff, Sikorsky paid the decedent a net amount of \$140 to \$146 per week in disability payments. The plaintiff also testified that Sikorsky paid the decedent approximately two thirds of his annual salary, and that these payments terminated after the decedent's death.

It is undisputed that the decedent was thirty-seven years old at the time of his death. Additionally, the plaintiff presented expert testimony to establish that the decedent had an average life expectancy of sixty-five years. Accordingly, the jury reasonably could have found that the decedent would have received disability payments for an additional twenty-eight years.

The trial court instructed the jury that an award of damages based on the decedent's lost future disability income must be adjusted to reflect the decedent's income taxes and estimated personal living expenses. The trial court further instructed the jury that the award must be reduced to a net present value.²⁵ The jury found in favor of the plaintiff and awarded \$738,029.85 in economic damages. See footnote 6 of this opinion.

Thereafter, the defendants moved to set aside the jury's verdict with respect to economic damages.²⁶ Specifically, the defendants claimed that the evidence was insufficient to support the verdict because: (1) the plaintiff's conflicting testimony concerning the amount of

the decedent's disability income was insufficient to permit the jury to ascertain economic damages to a reasonable certainty; and (2) absent expert testimony concerning the reduction of future income to a net present value, the rate of taxation and the decedent's personal living expenses, the jury lacked an adequate factual basis to make the appropriate adjustments to their award. Alternatively, the defendants moved for a new trial or a remittitur, claiming that the jury had failed to follow the trial court's instructions regarding the calculation of economic damages. The trial court denied the defendants' motions and rendered judgment in accordance with the verdict.

On appeal to the Appellate Court, the defendants renewed their claim that the evidence of economic damages was insufficient. The Appellate Court, which already had determined that the defendants were entitled to a new trial; *Carrano v. Yale-New Haven Hospital*, supra, 84 Conn. App. 658; see part I of this opinion; addressed the defendants' claim because it was likely to recur at retrial. *Carrano v. Yale-New Haven Hospital*, supra, 658 n.3. The Appellate Court concluded that the defendants' claim "merit[ed] little discussion" because "[e]conomic damages normally require nontestimonial evidence; *Giordano v. Giordano*, 39 Conn. App. 183, 207, 664 A.2d 1136 (1995); and must be proven to a reasonable certainty. *Jones v. Kramer*, 267 Conn. 336, 350 n.7, 838 A.2d 170 (2004)." *Carrano v. Yale-New Haven Hospital*, supra, 658 n.3. Accordingly, the Appellate Court concluded that "[t]he plaintiff's evidence of economic damages was inadequate as a matter of law." *Id.*

As an initial matter, we note that "[t]he standards governing our review of a sufficiency of evidence claim are well established and rigorous. . . . [I]t is not the function of this court to sit as the seventh juror when we review the sufficiency of the evidence . . . rather, we must determine, in the light most favorable to sustaining the verdict, whether the totality of the evidence, including reasonable inferences therefrom, supports the jury's verdict In making this determination, [t]he evidence must be given the most favorable construction in support of the verdict of which it is reasonably capable. . . . In other words, [i]f the jury could reasonably have reached its conclusion, the verdict must stand, even if this court disagrees with it. . . .

"We apply this familiar and deferential scope of review, however, in light of the equally familiar principle that the plaintiff must produce sufficient evidence to remove the jury's function of examining inferences and finding facts from the realm of speculation. . . . A motion to set aside the verdict should be granted if the jury reasonably and legally could not have reached the determination that they did in fact reach. . . . If the jury, without conjecture, could not have found a

required element of the cause of action, it cannot withstand a motion to set aside the verdict.” (Citations omitted; internal quotation marks omitted.) *Carrol v. Allstate Ins. Co.*, 262 Conn. 433, 442, 815 A.2d 119 (2003). Further, “[w]hen damages are claimed they are an essential element of the plaintiff’s proof and must be proved with reasonable certainty. . . . Damages are recoverable only to the extent that the evidence affords a sufficient basis for estimating their amount in money with reasonable certainty.” (Citations omitted; internal quotation marks omitted.) *Gaudio v. Griffin Health Services Corp.*, 249 Conn. 523, 554, 733 A.2d 197 (1999).

A

We first address whether nontestimonial evidence is necessary to establish economic damages to a reasonable certainty. “Ordinarily in civil cases the testimony of a single witness is sufficient to establish any fact, including the amount of damages, unless more proof is required by statute, even though the witness is a party or interested in the action.” 32A C.J.S. 761, Evidence § 1340 (1996). Thus, if a plaintiff presents testimonial evidence with respect to damages, it is solely within the province of the jury to assess the credibility of the plaintiff and to weigh the value of his or her testimony. See, e.g., *Waterbury Petroleum Products, Inc. v. Canaan Oil & Fuel Co.*, 193 Conn. 208, 227, 477 A.2d 988 (1984) (within province of trier of fact to credit plaintiff’s testimony regarding amount of consequential damages); *Delott v. Roraback*, 179 Conn. 406, 411–12, 426 A.2d 791 (1980) (within province of trier of fact to credit plaintiff’s testimony concerning earning capacity); *Cooke v. United Aircraft Corp.*, 152 Conn. 214, 218, 205 A.2d 484 (1964) (“[e]ven though a witness may stand alone, the trier is warranted in making an award consistent with the witness’ testimony, if believed”). Accordingly, we conclude that testimonial evidence is sufficient to support an award of economic damages, provided the jury’s reliance on this evidence is reasonable.

The defendants claim, however, that disability payments, as a defined income stream, must be established through nontestimonial evidence. Specifically, the defendants claim that the plaintiff could not rely solely on her own unsubstantiated testimony concerning the amount of the decedent’s disability income when she easily could have presented documentary proof of this income in the form of a check stub, tax return or statement of benefits. We reject this claim. “The credibility of a witness is a matter for the jury and, except in rare instances, there is no requirement that a witness’s testimony be corroborated by other evidence.” C. Tait & J. LaPlante, [Connecticut Evidence (2d Ed. 1988)], § 7.30.1. The absence of corroboration, of course, may affect the trier’s decision as to the sufficiency of the evidence and the burden of proof; [id.]; but this factor

goes to the weight of the claimant's case rather than to his or her ability to bring the case before the trier. We see no reason why the traditional tests of credibility, testimony under oath and cross-examination, coupled with the claimant's burden of proof, are insufficient" to measure the accuracy and reliability of testimonial evidence concerning economic damages. *Keystone Ins. Co. v. Raffile*, 225 Conn. 223, 235–36, 622 A.2d 564 (1993); *id.*, 236 (plaintiff need not present corroborative evidence to recover uninsured motorist benefits). Accordingly, we conclude that the plaintiff was not required to present nontestimonial evidence to corroborate her testimony concerning the amount of the decedent's disability income.

The defendants nevertheless claim that the plaintiff's testimonial evidence was insufficient. Specifically, the defendants claim that the plaintiff's "wildly differing estimates" concerning the decedent's gross earnings²⁷ from disability income were insufficient to enable the jury to determine the plaintiff's economic damages to a reasonable certainty. Although the plaintiff's testimony was not a model of clarity, we conclude that it was legally sufficient.

The plaintiff testified that the decedent had received disability payments both from Sikorsky and from social security, but that the payments from Sikorsky were reduced by the amount of the decedent's social security payments. The plaintiff further testified that the decedent had received a "net amount" of approximately \$140 to \$146 per week from Sikorsky. As the defendants correctly point out, \$146 a week would have resulted in annual gross earnings in the amount of \$7592. The plaintiff proceeded to testify that the "full" amount of disability payments from Sikorsky had equaled two thirds of the decedent's annual income of \$40,000. As the defendants correctly point out, this figure would have resulted in annual gross earnings in the amount of \$26,666.66. It is these "wildly differing estimates" of annual earnings, namely, \$7592 versus \$26,666.66, to which the defendants point in support of their claim. The jury reasonably could have inferred from the plaintiff's testimony, however, that the "net amount" of the decedent's disability income excluded the decedent's social security payments, while the "full" amount included these payments. Thus, the jury reasonably could have attributed the difference between these two figures to the amount of social security payments received by the decedent. Viewing the evidence in the light most favorable to sustaining the jury's verdict, the jury reasonably could have found that the decedent received annual disability payments in the amount of \$26,666.66. Because the plaintiff presented expert evidence to establish that the decedent would have lived an additional twenty-eight years, we conclude that the plaintiff's testimonial evidence was sufficient to permit the jury reasonably to find that the decedent would

have received gross earnings in the amount of \$738,029.85 from disability income over the course of his expected lifetime.

B

The defendants next claim, as an alternate ground for affirmance, that the plaintiff presented insufficient evidence of economic damages because expert testimony was necessary to assist the jury in adjusting the award of damages to account for the decedent's personal living expenses and income taxes, and to reduce the award, which consisted largely of future income, to a net present value. The plaintiff responds that the method of calculating these adjustments was within the common knowledge of the jury and, therefore, expert testimony was not required. We conclude that the evidence of economic damages was insufficient because the plaintiff failed to present any evidence, expert or otherwise, from which the jury reasonably could determine the amount of the decedent's personal living expenses or income taxes.

“To authorize a recovery . . . facts must exist and be shown by the evidence which affords a reasonable basis for measuring the [plaintiff's] loss. The [plaintiff has] the burden of proving the nature and extent of the loss Mathematical exactitude in the proof of damages is often impossible, but the plaintiff must nevertheless provide sufficient evidence for the trier to make a fair and reasonable estimate.” (Citation omitted; internal quotation marks omitted.) *Willow Springs Condominium Assn., Inc. v. Seventh BRT Development Corp.*, 245 Conn. 1, 58–59, 717 A.2d 77 (1998). “Proof of damages should be established with reasonable certainty and not speculatively and problematically. . . . Damages may not be calculated based on a contingency or conjecture.” (Citations omitted; internal quotation marks omitted.) *Leisure Resort Technology, Inc. v. Trading Cove Associates*, 277 Conn. 21, 35, 889 A.2d 785 (2006).

In a wrongful death action, it is well established that damages are measured “on the basis of the loss to the decedent had he lived” *Floyd v. Fruit Industries, Inc.*, 144 Conn. 659, 671, 136 A.2d 918 (1957). Thus, if the plaintiff seeks to recover damages for the loss of the decedent's wages or for the destruction of the decedent's earning capacity, “the inquiry in the first instance is as to probable net earnings, in the ordinary sense of that phrase as used in accounting practice, during the probable lifetime [of the decedent].” *Id.* Net earnings are calculated by deducting the decedent's income taxes and personal living expenses from his gross earnings. As we reasoned in *Floyd v. Fruit Industries, Inc.*, *supra*, 672, “[i]t would be difficult to conceive of a more unjust, unrealistic or unfair rule than one which would lead a jury to base their allowance of reasonable compensation for the destruction of earning capacity on

the hypothesis that no income taxes would be paid on net earnings. For all practical purposes, the only usable earnings are net earnings after payment of such taxes.” We further reasoned that, “if fair compensation is to be made . . . in the case of a decedent who was subject to the expense of maintaining himself there must be deducted from what would otherwise be fair compensation the reasonable expense of personal living during the probable duration of his lifetime.” *Id.*, 674. Personal living expenses include “those personal expenses which, under the standard of living followed by a given decedent, it would have been reasonably necessary for him to incur in order to keep himself in such a condition of health and well-being that he could maintain his capacity to enjoy life’s activities, including the capacity to earn money.” *Id.*, 675. Personal living expenses do not include, however, “recreational expenses, nor that proportion of living expenses properly allocable to the furnishing of food and shelter to members of [the decedent’s] family other than himself.” *Id.*

In the present case, the plaintiff failed to present any evidence, expert or otherwise, concerning the probable amount of the decedent’s income taxes and personal living expenses. The jury only could speculate as to the amount of taxes the decedent would have paid on his gross earnings and the amount of money necessary to support the decedent. Because the plaintiff’s damages are measured by the decedent’s net earnings, and because the evidence was insufficient to permit the jury to determine the amount of the decedent’s net earnings, we conclude that the plaintiff presented insufficient evidence of economic damages.

It could be argued that the jury could calculate the income taxes and living expenses of the decedent with reasonable accuracy based on their own common knowledge and experience with federal and state income taxes, as well as the general costs of self-maintenance. We reject this claim. First, we note that the decedent’s income consisted solely of disability payments, rather than wages, salaries or tips. Regardless of the validity of this claim insofar as it extends to other sources of income, we can perceive no reason to conclude that the rate of taxation of disability income is within the common knowledge and experience of the average juror. Second, although the concept of self-maintenance may be within the common knowledge and experience of the average juror, personal living expenses are measured by “the standard of living followed by a given decedent” *Id.* Because the amount of money necessary to feed, clothe and shelter an individual will differ dramatically depending on the lifestyle of the individual and the cost of living in the location in which the individual lives, we conclude that a plaintiff seeking to recover damages for the decedent’s lost wages or earning capacity must present evidence of the decedent’s probable personal living expenses.²⁸

We underscore that the evidence in the present case was not simply insufficient to establish the *amount* of economic damage suffered by the plaintiff. Rather, the evidence was insufficient to permit the jury reasonably to find that the plaintiff suffered *any* economic damage due to her loss of the decedent's disability income. Specifically, because there was no evidence concerning the amount of the decedent's probable income taxes and personal living expenses, there was no evidence from which the jury reasonably could find that the decedent's disability income exceeded these expenses. The following hypothetical illustrates this point. Suppose the decedent paid \$8000 in income taxes on his disability income and the amount of money necessary to feed, clothe and shelter the decedent annually amounted to \$18,666.66. The decedent's income taxes and living expenses would total \$26,666.66 a year, the same amount as his gross earnings from disability income. Pursuant to these calculations, the decedent's disability income would not exceed his expenses and, as such, the plaintiff would not have suffered an economic loss. In the present case, there was no evidence concerning the amount of the decedent's probable income taxes and personal living expenses, and, therefore, there was insufficient evidence to permit the jury reasonably to find that the plaintiff suffered an economic loss. Accordingly, we are compelled to conclude that the plaintiff's evidence of economic damages was insufficient.

III

Lastly, the defendants claim that the judgment of the Appellate Court should be modified pursuant to Practice Book § 84-11 (b) because the defendants are entitled to judgment as a matter of law. Specifically, the defendants claim that the evidence of causation was insufficient to support the judgment and, consequently, the Appellate Court improperly remanded the present case for a new trial. The plaintiff responds that we should decline to review the defendants' claim because we denied their cross petition for certification on the same issue. See footnote 1 of this opinion. Alternatively, if we reach the merits of the defendants' claim, the plaintiff maintains that the evidence of causation was sufficient. We conclude that the defendants' claim properly is presented for our review. We further conclude that the evidence of causation was sufficient to support the judgment.

A

We first address whether the defendants' claim is properly presented for our review. The following procedural history is relevant to our resolution of this issue. After the close of evidence in the plaintiff's case-in-chief, the defendants moved for a directed verdict claiming in relevant part that the plaintiff had failed to adduce sufficient evidence of causation. The trial court

denied the defendants' motion. Thereafter, at the close of evidence in the case, the defendants renewed their motion for a directed verdict. The trial court again denied the defendants' motion, and submitted the case to the jury. The jury found in favor of the plaintiff, and the defendants moved for judgment notwithstanding the verdict. The trial court denied the defendants' motion and rendered judgment in accordance with the verdict.

On appeal to the Appellate Court, the defendants renewed their claim that the evidence of causation was insufficient. Because the Appellate Court already had determined that the defendants were entitled to a new trial on the grounds of the trial court's misallocation of peremptory challenges, the Appellate Court declined to review the defendants' claim. *Carrano v. Yale-New Haven Hospital*, supra, 84 Conn. App. 658 n.3.

Thereafter, the defendants cross petitioned for certification to appeal from the judgment of the Appellate Court. Specifically, the defendants submitted the following proposed certified question for our review: "Did the Appellate Court [improperly decline] to adjudicate whether the defendants are entitled to judgment notwithstanding the verdict, where [the] defendants had properly preserved and briefed that issue, but the Appellate Court ruled that it had no occasion to reach the issue once it had reversed the trial court's judgment on other grounds and remanded for a new trial?" We denied the defendants' cross petition. *Carrano v. Yale-New Haven Hospital*, 271 Conn. 934, 861 A.2d 509 (2004).

The plaintiff claims that we should decline to review the defendants' insufficiency of the evidence claim because we denied the defendants' cross petition for certification. We disagree. It is undisputed that the defendants' claim was properly preserved in the trial court and properly presented to the Appellate Court. The Appellate Court declined to review the defendants' claim only because it already had determined that a new trial was required.²⁹ *Carrano v. Yale-New Haven Hospital*, supra, 84 Conn. App. 658 n.3 ("[b]ecause we conclude that a new trial is necessary, we need not consider the defendants' third claim regarding the sufficiency of the plaintiff's evidence"). We concluded in part I of this opinion, however, that a new trial is not required. Accordingly, interests of fundamental fairness and sound appellate policy dictate that the defendants' properly preserved insufficiency of the evidence claim receive appellate review. See, e.g., *State v. Padua*, 273 Conn. 138, 171 n.37, 869 A.2d 192 (2005) (court may address claims not certified for review in interest of judicial efficiency).

B

We now turn to the merits of defendants' claim. The defendants contend that the testimony of the plaintiff's

expert witness, Robert E. Pieroni, was insufficient to establish causation because Pieroni “utterly failed to explain to the jury how . . . ‘massive fluid overload’ could have led to the [decedent’s] pulmonary edema” We disagree.

“[T]o prevail in a medical malpractice action, the plaintiff must prove (1) the requisite standard of care for treatment, (2) a deviation from that standard of care, and (3) a causal connection between the deviation and the claimed injury. . . . Generally, the plaintiff must present expert testimony in support of a medical malpractice claim because the requirements for proper medical diagnosis and treatment are not within the common knowledge of laypersons.” (Citations omitted; internal quotation marks omitted.) *Boone v. William W. Backus Hospital*, 272 Conn. 551, 567, 864 A.2d 1 (2005). “The test for cause in fact is [w]ould the injury have occurred were it not for [the defendant’s] negligent . . . conduct . . . ? Proximate cause is defined as [a]n actual cause that is a substantial factor in the resulting harm The substantial factor test, in truth, reflects the inquiry fundamental to all proximate cause questions; that is, whether the harm which occurred was of the same general nature as the foreseeable risk created by the defendant’s negligence.” (Internal quotation marks omitted.) *Id.*, 571.

As we previously have explained, “[t]he standards governing our review of a sufficiency of evidence claim are well established and rigorous. . . . [I]t is not the function of this court to sit as the seventh juror when we review the sufficiency of the evidence . . . rather, we must determine, in the light most favorable to sustaining the verdict, whether the totality of the evidence, including reasonable inferences therefrom, supports the jury’s verdict In making this determination, [t]he evidence must be given the most favorable construction in support of the verdict of which it is reasonably capable. . . . In other words, [i]f the jury could reasonably have reached its conclusion, the verdict must stand, even if this court disagrees with it.” (Citations omitted; internal quotation marks omitted.) *Carroll v. Allstate Ins. Co.*, *supra*, 262 Conn. 442.

The following additional facts are relevant to our resolution of the defendants’ claim. Pieroni, a physician and professor of internal and family medicine at the University of Alabama School of Medicine in Tuscaloosa, testified as an expert witness on behalf of the plaintiff. Pieroni testified that the decedent’s death was caused by massive pulmonary edema, or excess fluid in the lungs, caused by a combination of the following factors: “massive edema or ‘anasarca’ (excess fluids in the upper and lower extremities, sacrum and buttocks that caused noticeable and extreme swelling); progressive anemia ([the decedent] lost one third of his blood volume while at Yale-New Haven Hospital; sepsis; fever;

pneumonitis; a low potassium-high sodium diet; non-steroidal anti-inflammatory drugs; and hospital-administered fluids including saline, intravenous antibiotics, and 'Go-Lightly,' a gallon of which [the decedent] drank to cleanse his colon for the colonoscopy." *Carrano v. Yale-New Haven Hospital*, supra, 84 Conn. App. 663–64. According to Pieroni, these factors caused a "massive fluid overload" that began on March 19, 1992, during the decedent's hospitalization, and worsened gradually until it eventuated in the decedent's death. Specifically, Pieroni testified that "what happens is when you have a build-up of fluid, it's built—it's not just in your legs, that's where we see it, it's in his thighs, also in the butt, which is very unusual that you find it there, the back, and it goes—so you—after a while your heart—it's beyond the capacity of your heart to pump it out if it's untreated, if you don't give a—a diuretic or Lasix, for example, you don't correct the anemia, and so the bottom line is, you reach a stage where your heart just cannot pump out this massive overdose of fluid. And that is coupled, that's why I said this is multi-factorial, it's not just the fluid, it's the fact that he had anemia—severe anemia, and that means your heart has to work at a higher degree of efficiency. And he also was septic, and we do know that septic processes produce what's called myocardial depressant factor that decreases the capacity of the heart to pump as effectively. So all of these things coupled result in a patient just not being able to get rid of the fluid and they essentially drown."

The deposition testimony of Larry H. Bernstein, the pathologist who had conducted the autopsy of the decedent, was read into the record at trial. Bernstein testified that the autopsy revealed that the decedent's lungs were "huge" and full of fluid. Specifically, Bernstein testified that although the "normal lung weighs 350 grams on each side"; the decedent's right lung weighed 1150 grams, and his left lung weighed 1050 grams. According to Bernstein, the cause of the decedent's death was pulmonary edema, or a "massive fluid build-up" in the decedent's lungs.³⁰

As an initial matter, we clarify the scope of the defendants' claim. The defendants do not dispute that the evidence was sufficient to establish the appropriate standard of care and the defendants' breach of that standard. Moreover, the defendants do not dispute that the evidence was sufficient to establish that pulmonary edema was the cause of the decedent's death. Rather, the defendants claim that Pieroni's testimony was insufficient to establish that the defendants' breach of the standard of care caused the decedent to develop pulmonary edema.³¹ We conclude that Pieroni's testimony, when viewed in the light most favorable to sustaining the verdict, was sufficient to establish that the defendants' breach of the standard of care resulted in a "massive fluid overload" that caused the death of the decedent.

Pieroni testified that the improper administration of excess fluids to the decedent, combined with the low potassium, high sodium diet on which the defendants had placed the decedent, caused the decedent to develop peripheral edema, or excess fluid in his extremities. Specifically, Pieroni pointed out that during the decedent's hospitalization, he was prescribed a gallon of "Go-Lightly" fluid, which contains sodium, or salt, to cleanse his colon, and was continuously administered fifty cubic centimeters an hour of normal saline, or salt, intravenously. Further, according to Pieroni, a low potassium, high sodium diet results in an increase in sodium, or salt, which may cause fluid retention and "fluid overload." Additionally, the decedent received the drug Trilisate to lower his fever, and Pieroni testified that "Trilisate should not have been given . . . because it causes . . . edema" Pieroni further testified that the decedent's edema continued to worsen, in relevant part, due to the defendants' improper failure to prescribe a diuretic to assist the decedent's body in fluid filtration. Moreover, the decedent was suffering from an infection and severe anemia, both of which, according to Pieroni, persisted due to the defendants' improper treatment, and both of which compromised the capability of the decedent's heart effectively to pump the excess fluid out of his body. The eventual result was that the decedent's edema gradually worsened until the excess fluid reached the decedent's lungs and effectively drowned him. Pieroni summarized the process as follows: "[the defendants were] giving [the decedent] salt" and, using the analogy of a cup, he stated that "the more you keep on putting in salt, not removing it with Lasix [a diuretic], it's gonna overflow. And when it overflows, [it goes] into your lungs and cause[s] massive—unfortunately, massive pulmonary edema, and that's what the patient did indeed have."

We conclude that the foregoing testimony was sufficient to permit the jury reasonably to find that the defendants' improper treatment of the decedent caused the decedent's death. Specifically, the jury reasonably could have found that but for the defendants' improper administration of excess fluids to the decedent, improper provision of a low potassium, high sodium diet, improper failure to prescribe diuretics and improper treatment of the decedents' infection and severe anemia, the decedent would not have developed a fatal case of pulmonary edema.

The judgment of the Appellate Court is reversed in part and the case is remanded to that court with direction to remand the case to the trial court with direction to vacate the judgment for the plaintiff in the amount of \$3,386,177.85 and to render judgment in favor of the plaintiff in the amount of \$2,653,124.85.³²

In this opinion KATZ and KARAZIN, Js., concurred.

¹ We granted the plaintiff's petition for certification limited to the following

issues: (1) “Whether the Appellate Court properly reversed the judgment based upon the trial court’s decision to award additional preemptory jury challenges in the absence of any showing of harm?”; and (2) “Whether the Appellate Court properly determined as a ‘matter of law’ that the [plaintiff’s] evidence of economic damages was inadequate?” *Carrano v. Yale-New Haven Hospital*, 271 Conn. 933, 861 A.2d 509 (2004).

We denied the defendants’ cross petition for certification on the following issues: (1) “Did the Appellate Court [improperly uphold] the trial court’s refusal, in the exercise of its ‘gatekeeper’ role under *State v. Porter*, 241 Conn. 57 [698 A.2d 739 (1997), cert. denied, 522 U.S. 1058, 118 S. Ct. 1384, 140 L. Ed. 2d 645 (1998)] to preclude the causation testimony of [the] plaintiff’s sole expert, or to strike it after the close of evidence and direct judgment for [the] defendants, where his opinion was scientifically unsound and did not fit the facts of the case, and where he recanted his original theory on the witness stand as scientifically implausible only to substitute an equally invalid and unreliable theory?”; and (2) “Did the Appellate Court [improperly decline] to adjudicate whether [the] defendants are entitled to judgment notwithstanding the verdict, where [the] defendants had properly preserved and briefed that issue, but the Appellate Court ruled that it had no occasion to reach the issue once it had reversed the trial court’s judgment on other grounds and remanded for a new trial?” See *Carrano v. Yale-New Haven Hospital*, 271 Conn. 934, 861 A.2d 509 (2004).

² This medical malpractice action also was brought by Sarah Carrano, the daughter of the decedent. The trial court rendered summary judgment against Sarah Carrano, however, and that ruling is not at issue in this appeal. Accordingly, we refer to Mary Carrano in both of her capacities as the plaintiff. We note that during the pendency of this litigation, the plaintiff changed her name to Mary Sholomicky.

³ As we explain in part I of this opinion, the plaintiff also brought this medical malpractice action against two other physicians, Andrew Elliot and Elton Cahow. The trial court directed a verdict in favor of Elliot and Cahow, however, and that ruling is not at issue in this appeal. Accordingly, we refer to Yale-New Haven Hospital, Ballantyne and Harris as the defendants.

⁴ Pursuant to Practice Book § 84-11 (a), the defendants raise the following alternate grounds for affirmance of the Appellate Court’s judgment: (1) the trial court’s rejection of legislative judgments on a matter governed by statute is inconsistent with an efficient and orderly judicial process within the meaning of *Kalams v. Giacchetto*, 268 Conn. 244, 842 A.2d 1100 (2004); (2) the evidence of economic damages was insufficient because expert testimony was necessary to assist the jury in calculating the decedent’s income taxes, personal living expenses and the present net value of future income; and (3) the trial court improperly denied the defendants’ motion to set aside the verdict because the jury had failed to adjust the award of economic damages to account for the decedent’s income taxes, personal living expenses and the present value of future income.

⁵ Practice Book § 84-11 provides in relevant part: “(a) Upon the granting of certification, the appellee may present for review alternative grounds upon which the judgment may be affirmed provided those grounds were raised and briefed in the appellate court. Any party to the appeal may also present for review adverse rulings or decisions which should be considered on the appeal in the event of a new trial, provided that such party has raised such claims in the appellate court. If such alternative grounds for affirmation or adverse rulings or decisions to be considered in the event of a new trial were not raised in the appellate court, the party seeking to raise them in the supreme court must move for special permission to do so prior to the filing of that party’s brief. Such permission will be granted only in exceptional cases where the interests of justice so require.

“(b) Any party may also present for review any claim that the relief afforded by the appellate court in its judgment should be modified, provided such claim was raised in the appellate court either in such party’s brief or upon a motion for reconsideration. . . .”

⁶ Specifically, the jury awarded the plaintiff, in her capacity as administratrix of the decedent’s estate, economic damages in the amount of \$738,029.85 and noneconomic damages in the amount of \$2,200,000. The jury also awarded the plaintiff, in her individual capacity, damages in the amount of \$448,148 for loss of consortium.

⁷ General Statutes (Rev. to 2001) § 51-243 (a) provides: “In any civil action to be tried to the jury in the Superior Court, if it appears to the court that the trial is likely to be protracted, the court may, in its discretion, direct that, after a jury has been selected, two or more additional jurors shall be

added to the jury panel, to be known as 'alternate jurors'. Alternate jurors shall have the same qualifications and be selected and subject to examination and challenge in the same manner and to the same extent as the jurors constituting the regular panel. In any case when the court directs the selection of alternate jurors, each party may peremptorily challenge four jurors. Where the court determines a unity of interest exists, several plaintiffs or several defendants may be considered as a single party for the purpose of making challenges, or the court may allow additional peremptory challenges and permit them to be exercised separately or jointly. For the purposes of this subsection, a 'unity of interest' means that the interests of the several plaintiffs or of the several defendants are substantially similar."

All references hereinafter to § 51-243 are to the 2001 revision, unless noted otherwise.

⁸ See footnote 3 of this opinion. Cahow died during the pendency of the litigation, and the executor of his estate, Barbara Kinder, was substituted as a defendant.

⁹ A " 'unity of interest' " exists under § 51-243 (a) if "the interests of the several plaintiffs or of the several defendants are substantially similar." General Statutes (Rev. to 2001) §§ 51-241 and 51-243 (a); see also *Walsh v. Stonington Water Pollution Control Authority*, 250 Conn. 443, 466, 736 A.2d 811 (1999) (trial court did not abuse its discretion in concluding that several plaintiffs lacked unity of interest because "the case entailed allegations of unique and personal harm suffered by four distinct persons over a span of a number of years"); *Marshall v. Hartford Hospital*, 65 Conn. App. 738, 750, 783 A.2d 1085, cert. denied, 258 Conn. 938, 786 A.2d 425 (2001) ("The primary test to determine the existence of a unity of interest is whether there are separate issues of liability as to the two entities or persons. If the liability bases differ, there is no unity of interest."). The trial court determined that the plaintiff had alleged separate bases of liability against each of the five defendants and, therefore, concluded that the interests of the defendants were not substantially similar. The propriety of the trial court's conclusion is not at issue in the present appeal.

We note that, in 2001, the legislature amended the statutory definition of a "unity of interest." See Public Acts 2001, No. 01-152. Specifically, the amended definition, which is included in both §§ 51-241 and 51-243 (a), provides in relevant part: "A unity of interest shall be found to exist among parties who are represented by the same attorney or law firm. In addition, there shall be a presumption that a unity of interest exists among parties where no cross claims or apportionment complaints have been filed against one another. In all civil actions, the total number of peremptory challenges allowed to the plaintiff or plaintiffs shall not exceed twice the number of peremptory challenges allowed to the defendant or defendants, and the total number of peremptory challenges allowed to the defendant or defendants shall not exceed twice the number of peremptory challenges allowed to the plaintiff or plaintiffs." Public Act 01-152, §§ 1 and 2. That amendment is not implicated in this appeal.

¹⁰ The trial court appears to have concluded that the plaintiff was entitled to a minimum of eight peremptory challenges because she represented two distinct interests, namely, her own individual interest and the interest of the estate of the decedent. The trial court also appears to have concluded that the plaintiff's two distinct interests lacked a "unity of interest" under § 51-243 (a). See footnote 9 of this opinion.

¹¹ The trial court ruled as follows: "You know, while [awarding additional peremptory challenges] is a discretionary function for the court, and while the standard of review the courts exercise of that discretion is where the—where it's an abuse of discretion that is manifest, or where injustice appears to have been done; and, I just think that it is a miscarriage of justice, a gross miscarriage of justice to end up having the defendants exercise twenty peremptory challenges and the [plaintiff] exercise eight. I think that is a gross [miscarriage] of justice. So, I'm going to exercise my discretion, right or wrong, we may find out from the Appellate Court whether I'm right or wrong, but I'm doing it on the basis of the standard set forth in *Rivera v. St. Francis Hospital & Medical Center*, 55 Conn. App. 460, 738 A.2d 1151 (1999)], especially at page 464, in which the court seems to imply that the court may exercise its discretion in conformity with the spirit of the law, and in a manner to subserve and not to impede or defeat the ends of substantial justice.

"I'm saying, that in my judgment it defeats substantial justice. It really makes a mockery of substantial justice to have such a disparate, wholly disparate set of peremptory challenges; and, so I am going to grant the

[plaintiff] the same number of peremptory challenges.”

¹² The Appellate Court reasoned that, “[a]ll of the relevant cases cited in *Kalams*, and *Kalams* itself, involve a court’s decision to grant more peremptory challenges to each side.” *Carrano v. Yale-New Haven Hospital*, supra, 84 Conn. App. 661.

¹³ In *Kalams v. Giacchetto*, supra, 268 Conn. 257, the trial court had concluded that each side of the litigation was entitled to eight peremptory challenges because two distinct causes of action had been consolidated for trial. We disagreed with the trial court’s conclusion because there was no authority to support the proposition that “a single party has . . . *legal entitlement* to multiple sets of challenges when distinct causes of action have been consolidated.” (Emphasis in original.) *Id.*, 261.

¹⁴ We emphasized “that a finding of actual harm is not required when the trial court has *denied* peremptory challenges to which the parties are entitled by law.” (Emphasis in original.) *Kalams v. Giacchetto*, supra, 268 Conn. 264 n.14.

¹⁵ Although we do not decide the issue, we question whether it was a proper exercise of the trial court’s discretion to award additional challenges to the plaintiff sua sponte simply because the trial court disagreed with the legislative determination of the appropriate allocation of challenges between a single plaintiff and several defendants who lack a unity of interest. See footnotes 9 and 11 of this opinion.

The dissent criticizes our “failure to determine whether the award of additional peremptory challenges was improper,” because the trial court’s award may have “trivialized article first, § 19, of the Connecticut constitution” See Conn. Const., amend. IV (“In all civil and criminal actions tried by a jury, the parties shall have the right to challenge jurors peremptorily, the number of such challenges to be established by law. The right to question each juror individually by counsel shall be inviolate.”). We note that “[t]his court has a basic judicial duty to avoid deciding a constitutional issue if a nonconstitutional ground exists that will dispose of the case.” *Moore v. McNamara*, 201 Conn. 16, 20, 513 A.2d 660 (1986); see also *State v. Cofield*, 220 Conn. 38, 49–50, 595 A.2d 1349 (1991) (“[c]onstitutional issues are not considered unless absolutely necessary to the decision of a case” [internal quotation marks omitted]). Further, the defendants do not claim that the trial court’s award “trivialized” the constitution of Connecticut. In light of our conclusion that the trial court’s award was harmless, we can perceive no reason to reach out and decide a constitutional issue that was not raised by the parties.

¹⁶ The defendants and the dissent have not pointed to any jurisdiction, and we have found none, that conducts harmless error review in such a discriminate manner. Rather, the defendants rely on case law from jurisdictions that have concluded that *all* awards of peremptory challenges not required by law defy harmless error review. See, e.g., *Blades v. DaFoe*, 704 P.2d 317, 321 (Colo. 1985) (“reversible error if the trial court grants peremptory challenges in excess of the number prescribed” by law); *Kentucky Farm Bureau Mutual Ins. Co. v. Cook*, 590 S.W.2d 875, 877 (Ky. 1979) (trial court’s improper allocation of peremptory challenges “requires reversal as a matter of law if the issue is properly preserved”); *Randle v. Allen*, 862 P.2d 1329, 1333 (Utah 1993) (award of peremptory challenges not required by law is reversible error per se, complaining party need not show prejudice). In *Kalams v. Giacchetto*, supra, 268 Conn. 262–63, however, we rejected this approach and, instead, joined those jurisdictions that have concluded, even in the context of one-sided awards, that an inquiry into harm is necessary to determine whether the complaining party is entitled to a new trial. See, e.g., *Connecticut Mutual Life Ins. Co. v. Hillmon*, 188 U.S. 208, 211–12, 23 S. Ct. 294, 47 L. Ed. 446 (1903) (trial court improperly awarded plaintiff additional peremptory challenges); *Bohna v. Hughes, Thorsness, Gantz, Powell & Brundin*, 828 P.2d 745, 762–63 (Alaska 1992) (trial court improperly awarded defendants additional peremptory challenges); *Fick v. Wolfinger*, 293 Minn. 483, 486–87, 198 N.W.2d 146 (1972) (per curiam) (trial court improperly awarded defendants additional peremptory challenges); see generally annot., 95 A.L.R.2d 963, § 3 (1964) (“[t]he numerical weight of authority in civil cases supports the rule that a judgment will not be reversed for error in allowing one or more peremptory challenges in excess of that provided by statute, unless the complaining party shows that he has exhausted his peremptory challenges and has suffered material injury from the action of the court, and that as a result thereof one or more objectionable jurors sat on the case, or for some other equally cogent reasons”); but see *Praus v. Mack*, 626 N.W.2d 239, 261 n.3 (N.D. 2001) (Maring, J., dissenting)

(noting that “modern trend” is to conclude that award of additional peremptory challenges defies harmless error).

¹⁷ We emphasize, however, that “a finding of actual harm is not required when the trial court has *denied* peremptory challenges to which the parties are entitled by law.” (Emphasis in original.) *Kalams v. Giacchetto*, supra, 268 Conn. 264 n.14; see also *Krause v. Almor Homes, Inc.*, 147 Conn. 333, 336, 160 A.2d 753 (1960) (reversing judgment of trial court and ordering new trial, without conducting harmless error review, when trial court improperly had denied plaintiffs’ peremptory challenges to which they were entitled by law); *Glass v. Peter Mitchell Construction Leasing & Development Corp.*, 50 Conn. App. 539, 547, 718 A.2d 79 (defendant not required to show prejudice when trial court improperly had found unity of interest among several defendants and granted only one set of peremptory challenges), cert. granted, 247 Conn. 938, 723 A.2d 317 (1998) (appeal withdrawn July 6, 1999).

¹⁸ The trial court in *Kalams v. Giacchetto*, supra, 268 Conn. 257, had concluded that each party was legally entitled to a minimum of eight peremptory challenges. See footnote 13 of this opinion. The trial court also granted a ninth challenge to each party because three alternate jurors were to be selected. *Kalams v. Giacchetto*, supra, 258.

¹⁹ The dissent appears to maintain that the jury in the present case was not fair and impartial because the plaintiff was allowed to shape the jury to her advantage. We disagree. The award of additional challenges to the plaintiff enabled the plaintiff to exclude additional jurors whom she perceived to be biased against her or partial toward the defendants, but it did not enable her to choose jurors partial toward her cause. Further, if the defendants believed that prospective jurors were biased against them or partial toward the plaintiff, they were free to use their own peremptory challenges to exclude those jurors without explanation. The fact that the defendants failed to exhaust their own peremptory challenges reflects their satisfaction with the jury ultimately selected.

The dissent contends, however, that the defendants “may have accepted jurors that they otherwise would have rejected if the plaintiffs had been given the correct number of statutorily authorized challenges.” This contention is purely speculative. The defendants do not claim that they would have exercised their peremptory challenges differently if the plaintiff had received the minimum number of challenges and, even if they had raised such a claim, it is unsupported by the record before us.

²⁰ Once this threshold showing has been met, the complaining party must demonstrate that the jury ultimately constituted was not fair and impartial by showing that an objectionable juror actually served on the jury that decided the case, and, that under the facts and circumstances of the case, the service of that juror was harmful. Cf. *State v. Ross*, 269 Conn. 213, 232–33, 849 A.2d 648 (2004) (“[I]n determining whether the [improper] denial of a for cause challenge was potentially harmful, this court considers whether an identifiable, objectionable juror actually served on the jury that decided the case, not whether the composition of the jury would have been different in the absence of the claimed error. In the present case, after exhausting his peremptory challenges, the defendant did not seek to exercise an additional peremptory challenge against a specific juror. Accordingly, we conclude that, even if it is assumed that the trial court improperly denied one or more of the defendant’s for cause challenges, thereby forcing him to exercise his peremptory challenges to remove those jurors, his right to exercise the full complement of peremptory challenges was not abridged. Put another way, any improper denial of the for cause challenges necessarily was harmless because the defendant was not forced to accept an incompetent or objectionable juror after his peremptory challenges had been exhausted.”).

²¹ The dissent contends that, at least two of the defendants necessarily exhausted their peremptory challenges. We disagree. The defendants, who were all represented by the same attorney at trial, appear to have exercised their challenges collectively, rather than individually. As such, it cannot be determined on the record before us whether any individual defendant exhausted his or her allotment of peremptory challenges. Moreover, we note that the defendants do not challenge the plaintiff’s assertion that they had failed to exhaust their peremptory challenges during jury selection. Even if we were to assume *arguendo* that some of the defendants had exhausted their challenges, we note that these defendants nonetheless failed to request additional challenges. As such, it is reasonable to conclude that they did not perceive a need to exercise additional challenges and, therefore, were not harmed by the trial court’s award. Cf. *State v. Esposito*, 223 Conn.

299, 310–11, 613 A.2d 242 (1992) (party improperly denied challenge for cause must request, and be denied, additional peremptory challenge).

²² The defendants claim as an alternate ground for affirmance, however, that the trial court's award was inconsistent with an efficient and orderly judicial process. Specifically, the defendants claim that the trial court's rejection of the number of peremptory challenges specified in § 51-243 (a) "must be corrected for there to be an efficient and orderly judicial process as *Kalams* requires" (Citations omitted.) We are not persuaded. The term "efficient and orderly judicial process" does not, as the defendants suggest, refer to the trial court's interpretation of, or deference to, legislation governing the award of peremptory challenges. Rather, the term refers to the length and complexity of jury selection proceedings. Cf. *Kalams v. Giacchetto*, supra, 268 Conn. 261 (no reversible error when complaining party could not claim plausibly that trial court's improper award "prejudiced his case in any way or unduly protracted the jury selection proceedings"). Because the defendants do not claim that the jury selection proceedings were unduly lengthy or complex, the trial court's award cannot be deemed inconsistent with an efficient and orderly judicial process.

²³ The defendants do not challenge the sufficiency of the evidence concerning funeral costs, which the jury reasonably could have found amounted to \$4976.85.

²⁴ Accordingly, we do not reach the defendants' alternate claim that the trial court improperly denied the defendants' motion to set aside the verdict because the jury had failed to follow the trial court's instructions to adjust the award of economic damages to reflect the decedent's income taxes, personal living expenses and the present value of future income.

²⁵ The trial court instructed the jury as follows: "If you were to determine that an award based upon loss of [the decedent's] disability income is a proper element of damages, you will arrive at a figure for that based upon the other rules I have just given you.

"Once you have arrived at that figure, you must discount it to the present value to allow for the fact that a present payment will be made in lieu of sums which, had the decedent lived, would have been received at periodic times in the future. So it's just as simple as saying, you know, a bird in the hand is worth two in the bush. You get a lump sum of money today, you have to apply a discount percentage of that because you're not waiting for it over the course of years. What that discount percentage should be is entirely within your discretion. I cannot give it to you. I cannot suggest it to you. There has been no evidence to support it. So it's up to you.

"This part of our law of damages as applied to a death case, I would tell you, is a quirk. It's peculiar, because I'm not finished yet with the other mathematic—mathematics that you have to go through. And you'll probably, when I finish, all say, '[h]ow can we do that? We don't really have any knowledge—we don't have sufficient knowledge to do that. Someone should have told us what numbers to apply.' Those are justifiable comments and criticisms. As I view the law, the law entitles the plaintiff to request this type of compensation and the law requires the court to charge the jury on it as best it can within the very, very generalized guidelines the court gives us.

"So we begin with the first adjustment, which is the discount for present value. You must then deduct any income tax that would have been paid on these sums. You may also take inflation into consideration as a factor in determining damages. Income tax would be figured on the basis of \$40,000 annual income in 1992.

"Finally, you will deduct from these sums the estimated personal living expenses for the period"

Earlier in its charge, the trial court had defined personal living expenses as "those personal expenses which, under the standard of living followed by [the decedent], it would have been reasonably necessary for him to incur in order to keep himself in such a condition of health and well being that he would be able to maintain his capacity to enjoy life's activities. They are expenses for the basic necessities of life—food, shelter, clothing and health care—under the decedent's standard of living.

"Personal expenses would not ordinarily include recreational expenses, nor that portion of living expenses properly allocable to the furnishing of food and shelter to members of his family other than himself."

²⁶ The defendants had moved unsuccessfully for a partial directed verdict at the close of the plaintiff's case-in-chief and at the close of evidence, claiming in relevant part that the plaintiff had presented insufficient evidence of the decedent's earnings.

²⁷ We use the term "gross earnings" to refer to the decedent's total earnings

from disability income prior to adjustment for income taxes and personal living expenses. We use the term “net earnings” to refer to the decedent’s total earnings from disability income after adjustment for income taxes and personal living expenses. See part II B of this opinion.

²⁸ Because there was no evidence concerning the probable income taxes and personal living expenses of the decedent, we do not reach the defendants’ claim that expert testimony was necessary to assist the jury in assessing and calculating these expenditures. Likewise, we do not reach the defendants’ claim that expert testimony was necessary to assist the jury in adjusting the award of economic damages to account for the present value of future income.

²⁹ The defendants contend that the Appellate Court was required to review their insufficiency of the evidence claim pursuant to *State v. Padua*, 273 Conn. 138, 178, 869 A.2d 192 (2005). In *Padua*, the defendant Miranda Calvente claimed that the Appellate Court improperly had declined to review her insufficiency of the evidence claim prior to remanding the case to the trial court for a new trial on the ground of trial error in violation of the double jeopardy clause of the federal constitution. *Id.*, 177. We did not reach the defendant’s double jeopardy claim because we concluded, “pursuant to our general supervisory authority over appellate procedure, that a reviewing court must address a [criminal] defendant’s insufficiency of the evidence claim”; *id.*, 178; if the claim is “properly briefed and the record is adequate for the court’s review.” *Id.*, 179. Specifically, we determined that “[i]nterests of . . . fundamental fairness require a reviewing court to address a [criminal] defendant’s insufficiency of the evidence claim prior to remanding a matter for retrial”; *id.*, 178; because “resolution of the claim may be dispositive of the case and a retrial may be a ‘wasted endeavor.’” *Id.*, 179 (“[p]ursuant to *Burks v. United States*, 437 U.S. 1, 18, 98 S. Ct. 2141, 57 L. Ed. 2d 1 [1978], a defendant is entitled to a judgment of acquittal and retrial is barred [under the double jeopardy clause] if an appellate court determines that the evidence is insufficient to support the conviction”). Because a new trial is not required in the present case, we need not address whether the rule articulated in *Padua* extends to civil actions.

³⁰ Contrary to Pieroni’s testimony, Bernstein testified that the build-up of fluid in the decedent’s lungs was sudden and, moreover, completely unrelated to the decedent’s peripheral edema.

³¹ The defendants also claim that the evidence of causation was insufficient because Pieroni “never identified to any degree of probability how [the] defendants could have prevented [the decedent’s] death.” We reject this claim. Expert testimony that the death of the decedent more likely than not could have been prevented is required only in a “lost chance” or “lost opportunity” for survival case. See, e.g., *Boone v. William W. Backus Hospital*, *supra*, 272 Conn. 573. “In a loss of chance case, a tortfeasor, through his [negligent failure to act], causes an individual to lose a chance to avoid some form of physical harm” from a preexisting medical condition. (Internal quotation marks omitted.) *Drew v. William W. Backus Hospital*, 77 Conn. App. 645, 652, 825 A.2d 810, cert. granted, 265 Conn. 909, 831 A.2d 249 (2003) (appeal withdrawn December 22, 2003); see also *Boone v. William W. Backus Hospital*, *supra*, 573 n.12 (lost chance or lost opportunity claim “is predicated on the defendant’s alleged acts of omission rather than commission” [internal quotation marks omitted]). In the present case, the plaintiff’s medical malpractice action rested on two related theories. First, the plaintiff alleged that the defendants’ improper provision of medical treatment affirmatively had caused the death of the decedent. Second, the plaintiff alleged that the death of the decedent would not have occurred but for the decedent’s improper discharge from the hospital. The plaintiff’s first theory of recovery does not state a claim for loss of chance because, as we discuss in the body of this opinion, the plaintiff presented sufficient evidence to permit the jury reasonably to find that the defendants’ affirmative acts had caused the death of the decedent. The plaintiff’s second theory of recovery, namely, the improper discharge of the decedent, arguably states a claim for loss of chance because it is premised on the defendants’ improper failure to provide medical treatment. See, e.g., *Boone v. William W. Backus Hospital*, *supra*, 573 (claim that defendant hospital improperly refused to treat or admit decedent stated claim for loss of chance); *Marshall v. Hartford Hospital*, 65 Conn. App. 738, 754, 783 A.2d 1085 (“[t]he medical malpractice claim in this case is a ‘lost chance’ or ‘loss of chance’ claim because the complaint alleges a failure to treat promptly or to obtain consultations from other physicians, thereby ‘los[ing] or minimiz[ing] the chances for successful treatment’ ”), cert. denied, 258 Conn. 938, 786 A.2d 425 (2001). Even if we were

to assume *arguendo* that the plaintiff's improper discharge claim requires proof that the defendants more likely than not could have prevented the death of the decedent, we conclude that Pieroni's testimony was sufficient. Pieroni testified "unequivocally [that the decedent] should never have been discharged by any stretch of the imagination when he was discharged with all of these multiple problems that were ongoing and were eminent—unfortunately, they were eminently treatable. The anemia, the sepsis [infection], the edema, these are things that any—well trained—well, the ordinary physician can treat." The defendants contend, however, that Pieroni's testimony was insufficient because it was conclusory and factually unsupported. We disagree. Pieroni testified that the decedent's anemia could have been treated with a blood transfusion, his sepsis, or infection, with a change in antibiotics and his worsening edema with the administration of a diuretic. Accordingly, we conclude that Pieroni's testimony was factually supported and reasonably relied on by the jury.

³² Judgment shall enter in the amount of \$2,204,976.85 for wrongful death, and \$448,148 for loss of consortium. The wrongful death damages include \$2,200,000 in noneconomic damages and \$4976.85 in funeral costs; see footnote 23 of this opinion; after deduction for the balance of the economic damages that improperly were awarded. See part II of this opinion.