The “Loss of Chance” Rule in the Various States

By

Lauren Guest and David Schap

College of the Holy Cross

December 28, 2013

For presentation at a National Association of Forensic Economics session at the Allied Social Science Association Meetings, January 4, 2013, Philadelphia, PA.

Corresponding author and presenter:   
 David Schap, Box 88a, College of the Holy Cross, Worcester, MA 01610  
 [dschap@holycross.edu](mailto:dschap@holycross.edu), 508-793-2688

**The “Loss of Chance” Rule in the Various States**

**Introduction: Defining Loss of Chance**

The loss of chance rule principally addresses cases of wrongful death in which the victim’s chance of survival has been reduced by negligent medical malpractice, although Frasca (2009) mentions in passing other applications. There are three versions of the rule described by Frasca (2009) that cover a range of various possible scenarios. The first is the “all-or-nothing” rule, which assigns the full value of the damage award to the plaintiff in the event that it can be can proven that, prior to the negligent behavior, the patient had a chance of survival greater than fifty percent if given non-negligent medical care. Frasca (2009) points out that the rule is an application of the simple negligence standard in a context in which causation is ambiguous: given a survival probability of greater than fifty percent with medically appropriate care, if the negligent care is deemed to be the proximate cause of death based on a standard of more likely than not, full damages are awarded accordingly. If the evidence suggests that the chance of survival initially was at or below the fifty percent threshold, however, then it cannot be the case that the malpractice was more likely than not the causal factor in the death, so the plaintiff receives no award of damages whatsoever.

Frasca (2009, pp. 95-96) indicates that in the application of the all-or-nothing rule with respect to setting the exact amount of damages, survival probability is ignored. The award of damages is not discounted (i.e., reduced) by the initial probability of survival when the pre-treatment probability of survival is above fifty percent, but less than unity; and when the initial survival probability is at or less than fifty percent, nothing is awarded.

Following the notation in Frasca (2009), we may write:

*D* = damages

*pa* = *a priori* probability of recovery absent negligence (assuming non- negligent treatment was available and could have been obtained by the victim)

*L* = loss absent a full recovery.

Using these variables, the all-or-nothing rule is formally defined as follows:

If *pa* > .5, then *D* = *L*.

If *pa* < .5, then *D* = 0.

When survival probability exceeds fifty percent, damages are awarded on the full loss undiscounted by the less than unity survival probability, thus resulting in overcompensation. On the other hand, for an individual with some chance of survival that happens to be at or below fifty percent, the all-or-nothing rule precludes any award of damages whatsoever no matter the extent of the medical malpractice (since it necessarily cannot be above fifty percent). Critics of the all-or-nothing rule have found the application of the rule to be unduly harsh in cases in which victims had initial survival probabilities at or just below the fifty percent threshold, hence the motivation for modifying the rule (Dahl, 2008 and Sebok, 2008).

A slightly more relaxed version of the all-or-nothing rule invokes a “substantial probability” standard, which states that the plaintiff is entitled to the full amount of damages if it can be shown that the medical negligence caused a *significant* decrease in the patient’s chances of survival, even if the initial survival chance were at or less than fifty percent. Formally, the rule appears as:

If *pa* > *x*, then *D* = *L*

If *pa* < *x*, then *D* = 0

With 0 < *x* < .5.

The substantial probability standard is a bit more ambiguous than the all-or-nothing norm, owing to the lack of specification assigned to the word “significant,” which may differ across jurisdictions. Note also that overcompensation continues to occur when the initial survival probability is greater than fifty percent, just as with the all-or-nothing rule.

The third and final variation of the rule considered by Frasca (2009) is the “incremental loss of chance rule.” Under this version, full compensation is awarded if negligence lowers the chance of survival to below fifty percent from an above fifty percent level initially. If the patient’s survival chance is initially less than fifty percent, however, the decrease in survival probability is calculated and then multiplied by the full value of damages, so the award is proportional to the incremental decrease in chance. Formally, let *pb* be the probability of survival post negligent action. The incremental loss of chance rule may be defined, correcting typographical errors in Frasca (2009, p. 100), as:

If *pa* > .5, then *D* = *L*.

If *pa* < .5, then *D* = (*pa* – *pb*)*L*.

To give a sense of the straightforward application of the incremental loss of chance rule, the Massachusetts Supreme Judicial Court in *Matsuyama v. Birnbaum* (2008, p. 27) described the application in specific language that made its way into the *Massachusetts Superior Court Civil Practice Jury Instructions, 2nd ed.* (2008, § 4.7.1):

(1) The fact finder must first calculate the total amount of damages allowable for the death under the wrongful death statute, G. L. c. 229, § 2, or, in the case of medical malpractice not resulting in death, the full amount of damages allowable for the injury. This is the amount to which the decedent would be entitled if the case were not a loss of chance case: the full amount of compensation for the decedent's death or injury.

(2) The fact finder must next calculate the patient's chance of survival or cure immediately preceding ("but for") the medical malpractice.

(3) The fact finder must then calculate the chance of survival or cure that the patient had as a result of the medical malpractice.

(4) The fact finder must then subtract the amount derived in step 3 from the amount derived in step 2.

(5) The fact finder must then multiply the amount determined in step 1 by the percentage calculated in step 4 to derive the proportional damages award for loss of chance.

**State Variation in the Application of Incremental Loss of Chance**

Using the cases and categorization found in Koch (2010) as a starting point, each state’s stance on the incremental loss of chance rule was investigated to create a comprehensive, detailed table (appended), current as of July 2013. The process included searching the aforementioned cases, Shepardizing for any recent alterations to the law, then coming to a conclusion regarding each state’s version. An additional Lexis-Nexis search was conducted using the term “loss of chance” for each state, but it quickly became apparent that such a method must be executed with caution. Results were not inclusive of all relevant cases due to the many different variations of the rule name that exist. Deviations from “loss of chance” doctrine include but are not limited to “lost chance,” “loss of a chance,” “lost-chance-of-survival,” “lost opportunity,” “LC,” “Increased-risk-of-harm,” and “lost or diminished chance.” After a thorough state-by-state investigation the status of the law in each state was coded according to the same four-way classification applied in Koch (2010), summarized as follows: 22 states have adopted the doctrine, 18 states have rejected it, 4 states have deferred opinion, and 6 states have yet to consider the doctrine. The states falling in each of these categories are listed in Table 1.

(Table 1 here.)

Categorization of the states has remained constant with that appearing in the Koch (2010) in all but two instances, namely Alaska and Michigan. Both were originally grouped with the list of states that have deferred opinion regarding the doctrine; as of July 2013, however, loss of chance has been rejected in Alaska and effectively rejected in Michigan. In Michigan, a statute makes viable a loss of opportunity pleading, but there is a 50 percent threshold requirement in the pre-negligence survival probability, effectively preserving (actually, reinstating after earlier court action) the all-or-nothing rule. In five other states, although the classification has remained constant, the cases offered as supporting evidence vary from Koch (2010). The states are Hawaii, North Carolina, South Carolina, Washington, and West Virginia. All other states fall under their categorization set forth by Koch (2010) with the initial supporting case law remaining good law. The only other alteration is that for some states, such as Florida, additional cases are added to the original example to offer further supporting evidence. The detailed table of case and statutory law results is to be coded as well relative to previously published summaries (notably, Weigand 2003), with any substantive differences noted (under construction at this time). Trends in the evolutionary adoption of loss of chance rules are discussed in Dahl (2008), Sebok (2008) and Weigand (2010). Our lengthy, detailed table of relevant cases and statutes for the various states is not reproduced here, but is available in electronic format. Contact the corresponding author for details.

**References**

Dahl, Dick. 2008. “’Loss of Chance’ Damages Gaining Acceptance.” *Lawyers USA* August 11: pp. 1-27 *passim.*

Frasca, Ralph. 2009. “Loss of Chance Rules and the Valuation of Loss of Chance Damages.” *Journal of Legal Economics* 15(2): pp 91-104.

Koch, Steven R. 2010. “Comment: Whose Loss Is It Anyway? Effects of the ‘Lost-Chance’ Doctrine on Civil Litigation and Medical Malpractice Insurance.” *North Carolina Law Review* 88 (January): pp. 595-638.

*Massachusetts Superior Court Civil Practice Jury Instructions*, 2nd ed. (MCLE, Inc. 2008)

Matsuyama v. Birnbaum, 452 Mass 1, July 23,2008: pp. 1-37.

Sebok, Anthony J. 2008. “Massachusetts’ Supreme Judicial Court Embraces the “Loss of a Chance” Doctrine: Why this Key Torts Decision May Convince Other State Supreme Courts to Follow Suit.” *Findlaw’s Writ* August 5: Web accessed.

Weigand, Tory A. 2003. “Loss of Chance in Medical Malpractice: A Look at Recent Developments.” *Defense Counsel Journal* July: pp. 301-314.

Weigand, Tory A. 2010. “Lost Chances, Felt Necessities, and the Tale of Two Cities.” *Suffolk University Law Review* 43: pp. 327-392.

**TABLE 1**

**State Categorizations by Treatment of Loss of Chance**

**Adopt** (22): Arizona, Delaware, Illinois, Indiana, Iowa, Kansas, Louisiana, Massachusetts, Missouri, Montana, Nevada, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, Washington, West Virginia, Wisconsin and Wyoming.

**Reject** (18): Alabama, Alaska, Connecticut, Florida, Idaho, Kentucky, Maryland, Michigan, Minnesota, Mississippi, Nebraska, New Hampshire, Oregon, South Carolina, South Dakota, Tennessee, Texas and Vermont.

**Not Yet Addressed** (6): California, Georgia, Hawaii, North Carolina, Utah and Virginia.

**Deferred** (4): Arkansas, Colorado, Maine and Rhode Island.