# Loss of chance: a new development in medical negligence law

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ot unlike medicine, the law evolves, although more slowly. The concept of "loss of chance" represents an important change in Australian law and is of particular interest to medical practitioners.

In a case of medical negligence, the patient (plaintiff) is required to demonstrate a duty of care by a doctor (defendant), a failure to discharge that duty (negligence), an injury, and that the negligence was a cause of the injury (causation). A patient's claim would fail if any of these elements were lacking, but a successful claim would result in payment (damages) by the doctor.

To establish causation, the patient must show, on the balance of probabilities (ie, 51% or more), that the negligence of the doctor was a cause, but not necessarily *the only* cause, of the injury, which, if proven, entitles the patient to full (100%) compensation. If the probability of causation is 49% or less, the patient is not entitled to any damages.

When several factors, negligent or not, may have caused the injury, it may be difficult for a patient to demonstrate causation. However, this may now be unnecessary. In some recent cases, as an alternative or in addition to causation, patients have resorted to the concept of loss of chance. It has succeeded where causation failed.

## Loss of chance

The qualitative concept of loss of chance was described in *Rufo v Hosking* [2002]:<sup>1</sup>

In order to recover damages for the loss of a chance of a better outcome, the plaintiff is required to prove on the balance of probabilities that there did exist a chance that the plaintiff would have had a better outcome had the negligence in treatment not occurred.

# Quantification of probability of loss of chance and of damages

Important questions arise regarding the quantification of the probability of a chance of a better outcome and the quantification of damages. The former is said to be quantified on the balance of probabilities — in the legal sense. Unlike causation, this does not simply mean more than 50%, nor does it mean beyond random possibility, which doctors — as scientists — might expect. The authority is the decision of the High Court of Australia in the case of *Malec v JC Hutton Pty Ltd* (1990),<sup>2</sup> in which the plaintiff claimed damages for acquiring brucellosis consequent to an employer's negligence. In assessing damages for future or potential events, the Court stated:

If the law is to take account of future or hypothetical events in assessing damages, it can only do so in terms of the degree of probability of those events occurring. The probability may be very high — 99.9 per cent — or very low — 0.1 per cent. But unless the chance is so low as to be regarded as speculative — say less than 1 per cent — or so high as to be practically certain — say over 99 per cent — the court will take that chance into account in assessing the damages. Where proof is necessarily unattainable, it would be unfair to treat as certain a prediction

### **ABSTRACT**

- The concept of "loss of chance" as an alternative cause of action in cases of medical negligence has succeeded in recent cases where actions based on causation have failed.
- The plaintiff must prove negligence and loss of a chance of a better outcome.
- The quantity of loss of chance must be more than "speculative" (1%).
- Damages are awarded as a proportion of the total injury commensurate with the loss of chance.
- More claims may be expected, although damages will generally be less than those awarded under causation.
- · Doctors' insurance premiums may rise.

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which has a 51 per cent probability of occurring, but to ignore altogether a prediction which has a 49 per cent probability of occurring. Thus, the court assesses the degree of probability that an event would have occurred, or might occur, and adjusts its award of damages to reflect the degree of probability.

In other words, in the context of the balance of probabilities of a loss of chance, the probability that a chance of a better outcome existed appears, curiously, to be equivalent to the quantification of the loss of chance. Thus, a plaintiff only needs more than a 1% chance of a better outcome in order to qualify for damages, provided negligence is proven. The quantification of damages, however, is directly related to the quantification of the loss of chance in relation to the injury. It could thus be the full amount (100%) or a fraction of the value of the injury.

## Development of the doctrine in Australian common law

The doctrine of loss of chance has a short medicolegal history. In several recent cases, Australian courts have established it as an alternative or additional cause of action in medical negligence litigation. Although loss of chance had earlier been recognised in the High Court of Australia as an appropriate cause of action in non-medical cases of negligence, for example in Sellars v Adelaide Petroleum NL (1994),<sup>3</sup> and had been considered but not adopted in the medical cases Chappel v Hart (1998)<sup>4</sup> and Naxakis v Western General Hospital (1999),<sup>5</sup> it was determinant in the New South Wales medical case of Rufo v Hosking [2004]. 6 Loss of chance has subsequently been the basis of several other successful cases of negligence against doctors or health authorities in NSW, including Halverson v Dobler [2006], State of New South Wales v Burton [2006] and Tabet v Mansour [2007]. It was also successful in Victoria, in Gavalas v Singh (2001). In contrast, the concept was rejected in Britain in *Gregg v Scott* [2005], <sup>11</sup> and has not yet been reconsidered by the High Court of Australia. Nonetheless, it would be expected to apply in future cases in NSW and Victoria and may apply throughout Australia unless rejected in a future case before the High Court of Australia.

## MEDICINE AND THE LAW

# Rufo v Hosking [2004]<sup>6</sup>

The authority in NSW for loss of chance in medical negligence cases was established by the Court of Appeal judgment in *Rufo v Hosking* [2004].<sup>6</sup>

A 14-year-old girl sustained vertebral microfractures after highdose steroids (dexamethasone was substituted for prednisolone) were used for 7.5 months for treatment of systemic lupus erythematosus, without the concurrent use of a steroid-sparing agent, such as azathioprine. She claimed damages from the medical practitioner on the grounds that the high doses of steroids caused osteoporosis and that the failure to prescribe a steroid-sparing drug deprived her of a chance of a better outcome. In the NSW Supreme Court, the trial judge ruled that prescription of the high doses of steroids was negligent but did not cause the injury — that is, causation was not established. He reasoned that the fractures may have occurred at lower doses, and therefore that the increase in risk with high doses was speculative. Similarly, he ruled that failure to prescribe a steroid-sparing drug did not deprive the plaintiff of a chance of a better outcome, reasoning that such a drug would have been introduced too late to prevent injury. The plaintiff's case thus failed.

However, the decision of the trial judge was reversed on appeal and costs were allowed.<sup>6</sup> Although the Court of Appeal agreed with the trial judge that on the balance of probabilities the defendant's breach of duty did not cause or materially contribute to the plaintiff's injury, the facts of the case did show, on "adopting a robust and pragmatic approach to the primary facts" and "as a matter of common sense", that, more probably than not, the high dose of steroids did cause a loss of chance that the plaintiff would have suffered less spinal damage than she actually did. That chance was more than speculative, albeit falling short of a 51% chance.

Clarifications of the concept of loss of chance are observed in cases that followed  $Rufo\ v\ Hosking.$ 

# Halverson v Dobler [2006]<sup>7</sup>

In this case, the plaintiff was awarded \$8.1 million in damages in the NSW Supreme Court when a doctor failed to perform an electrocardiogram which, on the balance of probabilities, would have diagnosed his long QT interval that had caused multiple episodes of sudden collapse, one of which, at the age of 18 years, culminated in cardiac arrest and severe disability. In the absence of other causes of injury, the plaintiff was entitled to full damages.

This case was adjudicated solely on the basis of loss of chance, and helped to establish the relationship of causation and loss of chance in medical negligence cases. It suggests that loss of chance will apply where the plaintiff cannot prove causation on the balance of probabilities, and accordingly the lost chance is less than 50%. If this were not so, loss of chance would displace the classical standard of proof in which a 51% probability of causation would lead to 100% liability.

## State of New South Wales v Burton [2006]<sup>8</sup>

A police officer was shot at but not injured during a siege and subsequently developed post-traumatic stress disorder (PTSD). In the District Court it was found that the risk of psychiatric harm was reasonably foreseeable and that the State breached its duty of care to the plaintiff by not providing psychological counselling. Damages of about \$400 000 were awarded. The State challenged.

The Court of Appeal of the NSW Supreme Court determined that negligence was established but causation was lacking: the PTSD was caused by the shooting, not by the failure to provide counselling. Nonetheless, the Court determined that there was sufficient evidence to establish on the balance of probabilities that the severity and duration of the PTSD could have been reduced by provision of counselling. In other words, the relevant loss was a loss of chance. Since it was likely that the plaintiff would have suffered PTSD in the absence of the State's negligence, it was suggested that the injury (and damages) be apportioned between the result of the shooting (not negligent) and the lack of counselling (negligent).

# Tabet v Mansour [2007]<sup>9</sup>

In 1990, a 6-year-old child with a medulloblastoma (then unknown to treating physicians) presented to a major hospital with headaches and was admitted for several days. During this period, a varicella rash appeared. The child was discharged from hospital but re-presented to a second physician 2 weeks later with continued headaches and a resolving rash. A provisional diagnosis of meningitis was made and a lumbar puncture performed, after which the child's condition soon deteriorated, presumably due to herniation. A computed tomography (CT) scan of the brain performed the next day revealed the medulloblastoma. Although subtotal resection was performed, followed by curative chemotherapy and radiotherapy, the child was left with severe disability.

A claim of negligence against the doctor succeeded in the NSW Supreme Court because he had breached a duty of care by not arranging a CT scan immediately after the deterioration that followed the lumbar puncture. The court ruled that causation between failure to order a CT scan and the subsequent injury was not established, but the negligence in not performing a CT scan had nonetheless deprived the plaintiff of a chance of a better outcome (avoiding brain damage). Failure to perform the CT scan was one of four possible causes of injury, the other three being tumour growth with hydrocephalus, effects of surgery, and residual effects of chemotherapy and radiotherapy. The claim was settled for \$610000, which is 40% of one-quarter of a sum of \$6.1 million. If causation had been proven, the defendant would have received the full amount.

The performance of the lumbar puncture that led to neurological deterioration was argued by some testifying medical experts as contraindicated, but this was ruled not negligent. Thus, were it not for the consideration of loss of chance, the performance of the lumbar puncture may have been the only focus for a claim of medical negligence, and the court may have decided the case in favour of the defendant.

# Gavalas v Singh (2001)<sup>10</sup>

In this Victorian case, a 37-year-old man claimed damages from a doctor for failing to diagnose a brain tumour. The plaintiff presented with headaches and left-sided weakness but did not have a brain CT scan until 10 weeks later, at which time the tumour was discovered. The tumour was incompletely resected but needed additional operations and resulted in disability and loss of employment. The trial judge at the County Court, finding the defendant doctor negligent in not diagnosing the tumour earlier, awarded the plaintiff \$30 000 in damages as compensation for pain and suffering during the 10-week period. Although the

#### MEDICINE AND THE LAW

plaintiff pleaded deprivation of a chance to have had the tumour removed completely, his case was not presented by counsel as a loss of chance.

The plaintiff appealed to the Supreme Court of Victoria Court of Appeal against the low damages award on the grounds that he had not been compensated for the consequences of a loss of chance that the tumour could have been discovered 10 weeks earlier, with a better outcome, had it not been for the doctor's negligence. The appeal was successful and the plaintiff was entitled to further damages (amount unknown) for loss of a chance of having the tumour completely removed earlier.

### Loss of chance in Britain

# Gregg v Scott [2005]<sup>11</sup>

In this British case, the diagnosis by a medical practitioner of non-Hodgkin's lymphoma was negligently delayed by 9 months, by which time the patient's estimated chance of cure (ie, survival for 10 years) was reduced from 42% to 25%. However, the House of Lords, ruling in favour of the defendant doctor, held that there was no justification for liability associated with delay in diagnosis causing a reduction in life expectancy.

Although this case has no authority in Australia, the reasoning used in rejecting loss of chance as a cause of action by a majority of 3:2 may have implications for future Australian cases. Collectively, the majority of the Lords was not convinced by the concept of loss of chance, arguing that the law had already established a coherent system for resolving disputes based on probability, not possibility, of actual harm. To change this would involve abandoning a good deal of legal authority and would have enormous consequences for insurers and insurance costs of doctors; and such a radical change of policy should require an Act of parliament. Baroness Hale pointedly suggested that reformulation of damage based on "common sense" (rather than on robust legal argument), as in *Rufo v Hosking*, would lead to liability in almost every case.

## Comment

The establishment of loss of chance as a cause of action in medical negligence claims would seem to favour a plaintiff, since it is now only a question of needing to show that some chance existed of a better outcome, however small. From the other point of view, it may mean that for a defendant to succeed, it must be shown that no chance at all of a better outcome existed. The quantification of a chance of a better outcome appears to be a very low hurdle for the plaintiff, particularly if costs are allowed, and very high for the defendant. It is unlikely that a plaintiff will fail if there is any chance greater than inconsequential of a better outcome, provided negligence is proven.

These developments may have several consequences. Firstly, doctors, as defendants, may expect claims to be framed in a dual manner. A classic causation claim would address an actual adverse outcome, which on the balance of probabilities was due to the defendant's negligent actions. In addition, a claim may now also include elements of a hypothetical chance of a better outcome,

which on the balance of probabilities existed had negligence not occurred. This chance may be less than an even chance. Indeed, the chance need only be more than inconsequential.

Secondly, these changes may lead to an increase in practices of defensive medicine. Thirdly, an increase in claims may be expected, thereby offsetting benefits from recent tort law reforms, such as the imposition of caps and thresholds for general damages. Doctors' insurance premiums may also rise.

Arguably, the quantity of lost chance should be low, otherwise an injured plaintiff has no hope of compensation unless negligence adds substantially to a naturally occurring adverse outcome. This idea was crystallised by Professor Harold Luntz:

Otherwise, according to those who believe that the law of torts operates as a significant deterrent, medical practitioners can be as negligent as they like when treating seriously ill patients who have less than a 50 per cent chance of survival, since the doctors would never be liable if the patient did not survive. 12

Whatever course a plaintiff pursues — whether causation or loss of chance — in a quest for damages, an obvious need for the plaintiff to show negligence of the defendant remains. However, the requirement to show causation seems to have been substantially removed. More claims based on loss of chance can be expected, particularly when there is failure to diagnose or treat, although damages may be reduced in comparison with a successful claim based on causation.

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