

CASE UPDATE

6 December 2019

LEGAL UPDATE

TREATMENT OF STATISTICAL EVIDENCE IN MEDICAL NEGLIGENCE SUITS

*Armstrong, Carol Ann v Quest
Laboratories Pte Ltd [2019] SGCA 75*

SUMMARY

In the recent decision of *Armstrong, Carol Ann v Quest Laboratories Pte Ltd* [2019] SGCA 75, a five-judge *coram* of the Court of Appeal affirmed the High Court's decision that a consultant pathologist and a laboratory had misdiagnosed a patient, causing his death by giving him a clean bill of health when he had malignant melanoma.

This article highlights several significant principles laid down by the Court of Appeal relating to causation in medical negligence and the treatment of statistical evidence.

BACKGROUND

In September 2009, Peter Traynor ("**Traynor**") consulted a general practitioner when he discovered a bloodstain on his shirt. The general practitioner shaved a mole from his back and sent it to Quest Laboratories Pte Ltd ("**Quest**") and Dr Tan Hong Wui ("**Dr Tan**") (collectively, "**Respondents**") for a review.

The Respondents returned a pathology report, stating "[t]here is no malignancy". It later transpired that it was in fact a malignant melanoma.

Traynor passed away from metastatic melanoma four years later, at the age of 49, leaving behind a wife ("**Appellant**") and their two daughters, aged 10 and 12.

The Appellant commenced proceedings against the Respondents on behalf of Traynor's estate and his dependants, alleging that their negligence had caused Traynor's death.

HIGH COURT'S DECISION

The High Court judge was unquestioningly of the view that the Respondents had breached their respective duties of care as they had been negligent in sending a pathology report indicating a clean bill of health to Traynor when the circumstances required at least further examination on their part.

Although the High Court judge was of the view that the Respondents' breach had caused Traynor to "lose a fighting chance", he declined to accept statistical evidence that Traynor would have an at least 68% chance of surviving 10 years. Instead, the High Court judge estimated that if not for the breach, Traynor would have lived for four more years based on the "lost years" argument presented in *Gregg v Scott* [2005] 2 AC 176.

Having considered that causation was established, the High Court judge proceeded to consider the amounts under the various heads of claim submitted by the Appellant.

The Appellant claimed under a Dependency Claim for benefits the dependents would have received from Traynor, a Loss of Inheritance Claim for the sums she would have inherited from Traynor, a Loss of Appreciation Claim for the decline in value to the Traynor family's home, and an Estate Claim for medical, funerary, and related expenses, as well as damages for bereavement, pain and suffering. The Appellant suggested that Traynor's annual income would have been \$450,000.

The High Court judge rejected the Respondents' submissions that the multiplier-multiplicand for the Dependency and Inheritance Claims should be determined together and that Traynor's annual income would have been lower than \$450,000. The High Court judge also dismissed the Loss of Appreciation and the Estate Claims.

The High Court judge accepted the amounts claimed by the Appellant up to four years' worth for the Dependency and Loss of Inheritance Claims but removed the value of benefits to herself and

her daughters under the Dependency Claim as this was not proved.

The Appellant appealed to the Court of Appeal against the High Court's findings on causation and damages.

The Appellant claimed that if not for the Respondents' misdiagnosis, Traynor would have availed himself of the appropriate medical procedures such that he would have been cured or effectively cured. Damages should therefore have been awarded for Traynor's full life expectancy up until the age of 82. The Appellant submitted that the Loss of Appreciation and Estate Claims should be reinstated, while the Dependency and Loss of Inheritance Claims should have been calculated according to Traynor's full life expectancy. It was also the Appellant's case that the Dependency Claim should have been awarded in full (without any reduction).

The Respondents cross appealed. They submitted that the High Court judge had erred in finding them liable for a breach of duty. Even if they had been in breach, there was no causation established as there had not been a loss of an early opportunity for treatment. The Respondents submitted, in alternative, that if they were found liable in negligence, damages should be calibrated downwards as the Dependency and Loss of Inheritance Claims should be computed collectively and damages in relation to Traynor's estimated income should be reduced.

COURT OF APPEAL'S DECISION

On the issue of breach

The Court of Appeal agreed with the High Court judge that the Respondents' misdiagnosis was an obvious and straightforward breach.

The Court of Appeal noted that none of the experts were prepared to conclusively state that the specimen given to the Respondents to review was a benign tumour, and yet this was exactly what the Respondents had done in stating that "[t]here [was] no malignancy". A reasonable and competent pathologist would at least have reached the conclusion that this was an atypical melanocytic lesion suggestive of melanoma. Crucial features of the slide presented to the Respondents for review were *unequivocally*

observable and supported an interpretation of malignant melanoma. Even Dr Tan, in 2012, revised his diagnosis from stating there was "no malignancy" to diagnosing an "[u]lcerated atypical melanocytic lesion" that was "suggestive of a melanoma".

While the Court of Appeal was careful to articulate that this judgment did not mean that pathologists are expected to reach the correct diagnosis *all the time*, the Court of Appeal held that pathologists should, *at the minimum*, state the worst-case scenario in their report if they are unable to rule it out. In the present case, Dr Tan not only failed to state that he could not rule out melanoma, he delivered a report indicating the exact opposite – that there was no malignancy.

On the issue of causation and the treatment of statistical evidence

The Court of Appeal observed that there is a tendency in medical negligence cases to focus overwhelmingly on the statistical evidence, and took the opportunity to provide guidance on how statistical evidence should be applied.

First, the Court of Appeal drew a distinction between fact probability and belief probability. The Court clarified that "fact probability" refers to probabilistic evidence that speaks to the existence or non-existence of a causal connection between the defendant's actions or omissions and the pleaded damage, while "belief probability" refers to the degree of overall strength and credibility attributed by the decision-maker (*ie* the court) to the fact probability evidence (*ie* the statistical study). In coming to its decision, the court may consider, amongst other things, the credibility of the study, its authors, and the reliability of the study.

The Court of Appeal clarified that statistical evidence is fact probability and it would be incorrect for courts to collapse the fact to be proven with the amount of credence which must be given to that fact in order to support a finding. While a court may place its belief in the reliability and appropriateness of a piece of fact probability (*ie* the statistical evidence), it need not invariably do so.

Next, the Court of Appeal disagreed with the way the statistics was applied by the majority in *Gregg*

v Scott. The majority in *Gregg v Scott* had transposed the endpoints of *other* patients to the plaintiff's initial state. The Court of Appeal respectfully disagreed with this approach as it took the view that the statistical evidence pertaining to other patients who were not misdiagnosed was at best a proxy for what might have been and did not reflect what actually happened to the patient who was misdiagnosed. The majority in *Gregg v Scott* also appeared to have conflated the tools of analysis (*ie* the statistics and the balance of probabilities test) with the object of analysis (*ie* the damage).

The Court of Appeal was of the opinion that judges must be cognisant that statistical evidence is but one piece of the factual probability puzzle. The ultimate inquiry lies in the overall assessment of the parties' respective cases.

In the present case, the Court of Appeal was persuaded by the Appellant's expert who testified that the probability that a tumour was dormant and not detected for over three years was extremely rare, and therefore held that the Appellant was able to show on a balance of probabilities that haematological spread had only occurred after September 2009.

The Court of Appeal reversed the High Court judge's finding that Traynor had only lost four years of his life, and instead, decided that damages should be calculated on the basis of his full life expectancy.

In coming to this decision, the Court of Appeal considered that Traynor's death was caused by the melanoma that had spread through his bloodstream from his infected lymph nodes after 2009, which the Respondents' breach had allowed to grow due to the delay in diagnosis. But for the Respondents' negligence, Traynor would have elected to have the lymph nodes surgically removed, and therefore be cured of his melanoma.

On the issue of damages

The Court of Appeal affirmed the majority of the High Court judge's decision on some of the heads of claims, and remitted some issues for the High Court's deliberation.

The Court of Appeal also revised the High Court judge's determination of Traynor's annual income

from \$450,000 to \$308,386 as the Appellant had not discharged her burden of proof in respect of that figure.

COMMENT

The judgment of the Court of Appeal is a welcome clarification and reiteration of the principles of causation in the tort of negligence.

First, the *Bolam-Bolitho* test while relevant in assessing the question of whether there was a breach, is not applicable to the question of causation. This is because causation is a matter of evidence, and while the opinion of experts remain relevant, the court is primarily concerned with whether a defendant's action or omission was a necessary condition for the plaintiff's loss under the "but for" test.

Second, the "but for" test is a means of establishing the inquiry of causation *in fact*, but a court will also undertake inquiries into causation *in law* which is an attributive question as to whether the defendant should be made responsible for the consequences of his actions that have befallen the plaintiff. In this regard, a judge is not bound to accept any expert opinion in its entirety and the ultimate consideration is driven by considerations of consistency, logic and coherence, with a powerful focus on the objective evidence before the court.

Third, while statistical evidence speaks to the existence of a causal connection between the defendant's actions and the pleaded damage, it is but one piece of the factual probability puzzle. The ultimate inquiry lies in the overall assessment of the parties' respective cases, and a court cannot abdicate its fact-finding function by a mere dint of the statistical evidence.

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