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Concurrent evidence used in NSW medical negligence case for first time

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How the court resolved complex causation issues and distinguished the competing objectives of scientific and legal proof …

The Supreme Court decision of *Halverson v Dobler* [2006] NSWSC 1307; BC200609964 (judgment delivered on 1 December 2006) was unique in that it involved the use of, for the first time, concurrent evidence, an analysis of the *Civil Liability Act 2002* (NSW) and a retrospective discussion on causation. The case is of particular interest in that it involved reviewing s 5O of the *Civil Liability Act 2002* (NSW) (Standard of care for professionals) to determine if the section provided a statutory defence and, if so, if the onus of proof was reversed.

This was a complex case with conflicting medical evidence regarding whether a general practitioner should investigate and/or exclude the potentially lethal cause of the plaintiff's recurrent syncopal episodes. The case concerned a claim by the plaintiff in negligence against his general practitioner for failing to identify a cardiac problem prior to his suffering a catastrophic event, resulting in hypoxic brain damage and catastrophic injuries. The case also concerned a claim by the mother, father and sister of the plaintiff for nervous shock.

The plaintiff's parents' and sibling's claim involved nervous shock claims arising from the plaintiff's catastrophic injuries. The parties had reached agreement on damages in all matters, which the defendant would pay if the parties succeeded in their claims, so there was no dispute concerning the claims for nervous shock.

The case was further complicated because the plaintiff's alleged congenital cardiac abnormality was never investigated prior to his cardiac arrest. The post-cardiac rhythm disorder detected on some of the electrocardiograms may have occurred as a direct consequence of the plaintiff's cardiac arrest and/or his profound brain damage.

The court was required to reconcile the difference between medical and legal proof and the role of hindsight when reviewing the likely cause of the plaintiff's catastrophic injuries. Despite a useful review of *Rufo v Hoskings* [2004] NSWCA 391; BC200407209 and subsequent decisions, the court held that it did not relate to this case and, accordingly, that aspect of the judgment will not be discussed in this article.

The article will endeavour to explain how the court resolved the polarised evidence of the medical experts on issue of duty of care and causation.

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Facts

The defendant was the plaintiff's regular general practitioner from 1995, when the plaintiff was 13 years old, through to 10 February 2001, when the plaintiff suffered a cardiac arrest and hypoxic brain damage.

Over this time, the plaintiff had several syncopal events,[1] some of which were partially investigated. The first syncopal event occurred on 4 September 1995. While the plaintiff was having his evening meal, he slumped forward without warning and his face went into his food. He was unconscious for approximately 30 seconds and did not have any jerky movements.

The defendant assessed the plaintiff in the emergency department of Cessnock Hospital. Blood tests were ordered and the provisional diagnosis of 'possible fit tonight. Viral Illness' was recorded.

Following that event, the plaintiff's parents consulted the defendant, who suggested that the plaintiff had a 'petit mal seizure'.[2] The defendant noted that the plaintiff's mother had temporal lobe epilepsy and it was decided that the plaintiff should be investigated for epilepsy.

The defendant arranged for an electroencephalogram (EEG), and had the plaintiff reviewed by a paediatric neurologist. The paediatric neurologist noted the normal EEG, took the plaintiff's history and advised the defendant that he should consider the syncopal event as a 'faint'. However, he warned that if the plaintiff had subsequent syncopal episodes then he should consider a sleep-deprived EEG.

In 1997 the plaintiff complained of having regular 'dream-like states' with associated headaches. The defendant considered that the plaintiff may have had epilepsy and referred him for a sleep-deprived EEG. The sleep-deprived EEG was normal, which excluded epilepsy as a diagnosis for the plaintiff's previous and current symptoms.

The plaintiff's second syncopal event occurred on the morning of 29 June 1998 at 10 am. The plaintiff's grandfather was escorting him to the defendant's surgery when he, with some notice, collapsed. By the time help had arrived, the plaintiff had regained consciousness.[3] The judge accepted the evidence of the plaintiff's grandfather that he told the defendant of this incident, but noted that the defendant did not appear to appreciate the full extent of the information and noted in the clinical record that the plaintiff had a 'migraine'.

On 1 February 2001, the plaintiff, accompanied by his mother, consulted the defendant complaining of increased levels of fatigue. During the routine examination, the defendant noted a 'mitral type murmur', and described the same as a '2/6 pansystolic murmur radiating to axilla'. A chest X-ray was ordered, which was normal.

The third syncopal event occurred on 4 February 2001. The plaintiff was sitting on a stool at the kitchen bench talking to his father. After he had returned to the stool from getting a glass of milk from the refrigerator, he collapsed and was unconscious for approximately 20 seconds without jerking movements. The plaintiff was taken to the emergency department of Cessnock Hospital and admitted under the care of the defendant.

On 5 February 2001, the defendant reviewed the plaintiff and noted the history recorded the previous night and diagnosed 'syncopal episode with seizure on the background of viremic symptoms'. He ordered blood and virology studies, which subsequently diagnosed Epstein Barr Virus[4] (EBV or glandular fever). The plaintiff was discharged later that evening.

The plaintiff's condition deteriorated over the following day and he was readmitted to Cessnock Hospital on 6 February 2001, under the diagnosis of EBV, dehydration and nausea. He was discharged late on the morning of 10 February 2001.

On 11 February 2001 at 4.40 am or thereabouts, the plaintiff, aged 19, suffered a cardiac arrested caused by ventricular fibrillation thought to be caused by EBV myocarditis.[5] A differential diagnosis for the cause of the plaintiff's ventricular fibrillation was made after several electrocardiograms (ECGs) noted the occasional run of prolonged QT waves.

Several months later, the plaintiff's treating cardiologist, Dr Leitch, reviewed the post-cardiac arrest ECGs and stated:

> … [the] data together indicates that the most likely diagnosis for his cardiac arrest is underlying long QT syndrome exacerbated by electrolyte disturbance secondary to vomiting, diarrhoea and his generalised illness with Epstein Barr …[6]

Trial

On the first day of the trial, McClellan CJ at Common Law ordered that the plaintiff and defendant medical experts would, where appropriate, participate in a joint conference to synthesise the disputed issues.[7] While there were some stand-alone experts,[8] the plaintiff's and defendant's general practitioners and cardiologists participated in these joint conferences.

Both conclaves produced joint reports, which were tendered and used to direct the discussion on the various issues in dispute.

Following each conclave, the medical experts were sworn in and participated in a discussion led by the bench.[9] McClellan CJ detailed the process as:

> … what I will do is to swear in all of the prospective group, whatever they may be, in this courtroom … Then in their presence, I will run through with the two of you [Senior Counsel] the agenda for the discussion, just so that everyone understands what the topics are.
>
> Then I will identify what I think to be the appropriate person. Having regard to the written material that I will have already read and also having regard to the issues that have fallen out, I will invite one of the people to give me their perspective on that issue and then invite other or others to offer their perspectives, if it be the same or it if different, and invite the two of you [Senior Counsel] to join in that discussion as you wish to do.
>
> We won't leave a topic until you [Senior Counsel] have both satisfied me that you have had an opportunity to ask any of the witnesses any questions you wish to ask on that topic. Then we will go to the next topic. Then, at the end, I will come back to both of you and say 'is there anything else that you want to ask?'
>
> …
>
> The purpose of the exercise, as far as I am concerned, is to be able to most closely relate the different opinions on particular matters so that I understand what each of the persons are saying in a way which enables me clearly to see how they relate one to the other. I am looking for your assistance in that process, but that does not deny you the opportunity, either as we go through or at the end, to ask any question that you may wish to ask.[10]

Liability

The plaintiff's case involved a fundamental and universal axiom in medical practice, that where more than one diagnosis exists, the one that may cause a mortal risk must be investigated and excluded. The plaintiff suffered from recurrent syncopal events and it was argued the defendant ought to have excluded, by way of investigation, the lethal cause being cardiac syncope.

The plaintiff's case involved a fundamental and universal axiom in medical practice, that where more than one diagnosis exists, the one that may cause a mortal risk must be investigated and excluded.

The issue was complicated because syncopal episodes can be characterised as either:

- vasovagal[11] — fainting at the sight of blood, emotional stress, pain, etcetera;
- neurological[12] — petit mal, tonic clonic, etcetera; or
- cardiogenic[13] — Stokes-Adam syndrome, aortic stenosis, arrhythmia, etcetera.

The thrust of the plaintiff's argument was that the defendant ought to have excluded the potentially fatal cardiogenic cause of his syncopal episodes, given that they were recurrent and that epilepsy had been diagnostically excluded.

The plaintiff argued that following his second or third syncopal episode on 4 February 2001, together with his recently diagnosed 2/6 pansystolic murmur,[14] the defendant should have performed, among other things, an ECG and/or referred the plaintiff to a cardiologist for further investigations. The plaintiff tendered literature from general practice, cardiology, emergency medicine and neurology medicine textbooks, journals and publications that warned medical practitioners to consider, investigate and exclude cardiogenic syncopal episodes when patients present with atypical and/or recurrent syncopal episodes.

The plaintiff argued that the defendant departed from an acceptable standard of care when he failed to investigate, properly or at all, the cause of the plaintiff's recurrent syncopal episodes. Furthermore, the defendant failed to investigate,[15] diagnose and/or refer the plaintiff to a cardiologist or tertiary hospital following the diagnosis of a 2/6 pansystolic murmur and his atypical syncopal event.

The defendant argued that the plaintiff suffered from vasovagal syncope and there was no reason, medical or otherwise, to investigate and/or exclude cardiogenic syncope. Moreover, the 2/6 pansystolic murmur diagnosed by the defendant was investigated by way of a chest X-ray that excluded cardiomegaly[16] and, in the defendant's mind, also excluded infective endocarditis.[17]

The defendant argued that the diagnosis of EBV on 5 February 2001 was the cause of the 2/6 pansystolic murmur and, given that the plaintiff

suffered from a 'syncopal episode with seizures on the background of viremic symptoms', there was no need to perform an ECG and/or consult or refer the plaintiff to a cardiologist.

The defendant sought to rely on s 5O of the *Civil Liability Act* (Standard of care for professions) to jettison the plaintiff's allegation of negligence. Section 5O states that a professional 'does not incur a liability in negligence' if that professional provides services that were 'widely accepted in Australia by peer professional opinion as competent professional practice'; however, that peer professional opinion 'does not have to be universally accepted to be considered widely accepted'.

The defendant argued that s 5O placed an evidentiary onus on the plaintiff to prove that a particular practice was not widely accepted in Australia by peer professionals. He also led evidence stating that it was not mandatory to investigate the plaintiff's recurrent syncopal episodes because he had diagnosed them to be of vasovagal origin. The 2/6 pansystolic murmur, argued the defendant, was a haemodynamic flow disturbance caused by the EBV and therefore did not warrant investigating.

The plaintiff argued that s 5O is a statutory defence available to professionals found to be negligent under the standard of care enunciated in the judgment of *Rogers v Whittaker* (1992) 175 CLR 479. Section 5O can be used, according to the plaintiff, to avoid liability if the defendant can assert that the conduct was widely accepted in Australia by peer professional opinion.

The plaintiff argued that the s 5O defence was expressed in the negative — that is, a professional 'does not incur liability' if certain propositions are established. Its function is to provide a defence to professionals provided evidence is adduced stating the defendant ascribed to a particular practice that was widely, although not universally, accepted.[18]

The evidentiary onus, therefore, falls on the defendant seeking to take advantage of that defence. It is not enough, argued the plaintiff, for the defendant to select a small number of selected experts, who attest to their own experience and practice, to discharge the onus of proof. There must be extrinsic medical material to support the views proposed by the defendant to justify his assertion that his actions were reasonable.

The court held that s 5O was intended to operate as a statutory defence. The court agreed with the plaintiff's submissions that s 5O was a defence 'expressed in the negative [that] indicates that Parliament did not intend to effect a more radical change in the standard of care to be applied in professional negligence cases'.[19]

The court held:

> I am satisfied that to the extent that the opinions of the general practitioner called by the defendant differ from those of the plaintiff, this has resulted from inappropriate assumptions about the facts (for instance that Dr Dobler could not have believed that he had detected a 2/6 pansystolic murmur), considering the significant events of Kurt's medical history in isolation, and a reluctance to recognise that when Dr Dobler saw Kurt on 5, 8, 9, 10 February it was in Hospital when an ECG could have been obtained with ease. I do not think it has been established that it is widely accepted as competent professional practice when a boy is hospitalised following a third episode of syncope in the presence of a viral illness and recent detected heart murmur, to only treat the viral illness and not investigate the syncope or perform basic cardiological investigations
>
> …
>
> In my opinion, s 5O cannot relieve Dr Dobler from liability.[20]

Causation

Five cardiologists were qualified — four expert witnesses and one witness of fact. The witness of fact was a cardiologist whom the defendant would have contacted if he had been concerned about the plaintiff's heart.

Three joint reports were generated following the conclave — one general practitioner and two cardiologist reports.[21] The plaintiff qualified two cardiologists and the defendant qualified two cardiologists who commented on causation — that is, the direct medical link between breach of duty of care and the plaintiff's injuries.

There were essentially two main causation issues in dispute.

Were the plaintiff's syncopal episodes cardiogenic?

If so, would an ECG, performed after the event, show an arrhythmia that was attributable to long QT syndrome (LQTS)?[22]

The plaintiff's cardiologist's report followed the central argument that he suffered from recurrent cardiogenic syncopal events and, if investigated at any time prior to his cardiac arrest, then his LQTS would have been diagnosed and medically treated. The defendant's report argued that all of the plaintiff's syncopal events were vasovagal and the isolated ECGs evidencing LQTS were attributable to post-cardiac arrest hypoxic brain damage, sympathetic storming, medications and/or electrolyte imbalances. Moreover, had an ECG been performed prior to the plaintiff's cardiac arrest, then, on the balance of probabilities, the ECG would have been normal.

Despite their polarised views on causation, all of the cardiologists agreed that if they were consulted after the 4 February 2001 syncopal event and were provided with the plaintiff's history of syncope and the recently diagnosed 2/6 pansystolic murmur, they would have performed an ECG and an echocardiogram. Moreover, three of the four cardiologists stated that they would have had the plaintiff continuously monitored for at least 24–48 hours.[23]

The court heard that LQTS may be caused by genetic and/or environmental factors, such as drugs, electrolyte abnormalities, stressors that activate the sympathetic nervous system and/or brain injury, hence the condition may only occur in the right environment. The debate turned to whether the LQTS would have been detected if an ECG had been performed at any time prior to the plaintiff's cardiac arrest. Unfortunately, the only evidence available to resolve this issue was several abnormal ECGs obtained after the cardiac arrest.

The cardiologists agreed that the ECGs taken on 12, 20 and 21 February 2001 revealed a long QT interval; however, the cause of the long QT interval remained in dispute. The plaintiff argued that the plaintiff's long QT interval, post-cardiac arrest, confirmed the hypothesis of congenital LQTS exacerbated by other factors — namely, the EBV. The defendant argued that the plaintiff's post-cardiac arrest long QT intervals were caused by environmental factors that were not present prior to his arrest — factors such as hypoxic brain damage with sympathetic storms, medications, etcetera.

The defendant asserted that there was no recorded environment stressor that may have caused or materially contributed to triggering LQTS. Furthermore, the defendant noted that there was no scientific and/or medical literature supporting the plaintiff's viral hypothesis. The plaintiff argued that the common denominator with all of his previous syncopal events was viral illnesses. Despite the lack of scientific and/or medical literature noting the connection between viral illnesses and the advent of LQTS, he argued that it was consistent, in him, that a viral illness was indeed the trigger.

The discussion between the plaintiff and the defendant on this issue is found in an exchange between Professor McGuire (for the defendant) and Professor Saul (for the plaintiff) during their concurrent evidence:

> **Prof McGuire:** As we have both agreed previously, patients with long QT syndrome can have arrhythmias without any of these factors being present. You are postulating a new factor that hasn't been documented in the literature previously: would you agree with that?
>
> **Prof Saul:** No, I wouldn't agree because in the literature sympathetic stressors are what is talked about and I believe if you looked at any of the databases you would see that sometimes there were viral illnesses, but to me it doesn't matter because we only have the viral illness in him. We don't have electrolyte abnormalities. We don't have any significant drug effects. We don't have myocardial ischaemia. We don't have brain injury prior to his arrest. We don't have significant bradycardia. We don't have hypothermia.
>
> The only thing we have is the stress of his current viral illness and his history is such that all of his events occurred during viral illnesses.[24]

On this issue the court found:

> Professor Saul was of the view, which I accept, that the difference of opinion between the cardiologists was essentially due to the fact that as yet there is nothing in the scientific literature that says that viral illnesses specifically might lead to arrhythmias in patients with LQTS.[25]

The remaining causation issue was whether an ECG performed between 5 February 2001 and 10 February 2001 would reveal LQTS. The defendant argued that there was a 10–20 per cent chance of detecting an LQTS[26] on a single ECG, whereas the plaintiff argued that there was 70–75 per cent chance of detection.[27]

McClellan CJ resolved this impasse by adopting the role of hindsight to resolve causation issues. He referred to High Court authority and noted that it was entirely appropriate to use

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hindsight on issues of causation issues.[28]

The court noted the observations of Ipp JA in *Capital Brake Service Pty Ltd v Meagher (t/as Sparke Helmore)* [2003] NSWCA 225; BC200304523 at 30 and Priestley JA in *New South Wales (t/as New South Wales Department of Agriculture) v Allen* [2000] NSWCA 141; BC200003934 at [3] and then concluded:

> This is a case where the issues of causation simply cannot be answered with scientific certainty. However proof in a legal context is governed by consideration of legal responsibility rather than by the establishment of scientific absolute. Legal causation is established by the application of common sense to the evidence as a whole (*March v E & M H Stramare Pty Ltd* (1990) 171 CLR 506 at 509). This may not yield the same results as the application of the scientific method, but it provides an appropriate resolution of problems where the inherent uncertainty of human affairs may compel the scientific mind to suspend judgement.[29]

Given that the cardiologists[30] had agreed that the likely cause of the plaintiff's arrest was LQTS[31] and the court accepted the proposition that the viral illness was probably the trigger for the LQTS, then it logically followed that if an ECG was performed while the plaintiff had the viral illness, it was highly probably that the ECG would have detected the arrhythmia. In the alternative, however, the court also noted that cardiac arrhythmia would have been present due to the:

> … combination of bradycardia, electrolyte abnormalities and long QT provoking drugs that were each present in Kurt at one time or another from 4 February to 10 February may have had the effect that an ECG performed at this time would have revealed an abnormality.[32]

The court concluded that the defendant departed from acceptable standards of care and that departure caused or materially contributed to the plaintiff's cardiac arrest, hypoxic brain damage and other injuries and disabilities.[33]

Conclusion

This case was unique: it was the first medical negligence case in NSW to trial concurrent evidence and to rule on the application of s 5O of the *Civil Liability Act* and its operation as a defence, with the evidentiary onus lying on the defence.

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The case involved reviewing the role of hindsight in resolving complex causation issues and had to distinguish the competing objectives of scientific and legal proof. The use of concurrent evidence allowed the court to thoroughly test the evidence of the experts, especially in such a complex medical negligence case that involved retrospective analysis of issues of negligence and causation.[34] ●

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The author acted for the plaintiff in this case.

Endnotes

1. Syncope: a transient loss of consciousness resulting from an inadequate blood flow to the brain.

2. Petit mal epilepsy (absence seizure): activity ceases suddenly for a few seconds to several minutes. No fall or convulsive muscular contractures occur.

3. At [21] p 18.

4. Epstein Barr virus: a member of the herpes virus family, discovered in 1964. It is one of the causes of infectious mononucleosis.

5. Myocarditis: inflammation of the myocardium (the middle layer of the walls of the heart, composed of cardiac muscle).

6. Quoted from a letter that was in the subpoenaed material and noted in the hearing, but not submitted per se.

7. Section 31.25 of the *Uniform Civil Procedure Rules 2005* (NSW) (Instructions to expert witnesses where conference ordered before report furnished).

8. The plaintiff served medico-legal reports in accident and emergency and in neurology.

9. Section 31.26 of the *Uniform Civil Procedure Rules* (Joint report arising from conference between expert witnesses).

10. T 407: 3–44.

11. Vasovagal: (vasodepressors) syncope resulting from a fall in blood pressure owing to a failure of peripheral resistance with concomitant reduced venous return, or due to slowing of the heart. This type of syncope is usually benign.

12. Neurologic: usually classified as seizures.

13. Cardiac: syncope of cardiac origin usually caused by arrhythmia.

14. Pansystolic murmur: a heart murmur heard throughout systole. The defendant diagnosed this on 1 February 2001.

15. This included ordering or performing an ECG.

16. Cardiomegaly: enlargement of the heart.

17. Infective endocarditis: infective inflammation of the lining membrane of the heart. This is usually confined to the covering of a valve and sometimes to the lining membrane of the chambers.

18. See s 5O(3) and (4) of the *Civil Liability Act*.

19. At [183] p 91.

20. At [188] pp 92–93 and [190] p 93.

21. The proceeding discussion will focus on the issues discussed by the cardiologists.

22. LQTS is a complex range of conditions resulting in cardiac rhythm disturbances syndrome that can cause sudden death syndrome.

23. At [123] p 65.

24. T 716:18–37.

25. At [131] p 69.

26. At [137] and [138] p 71.

27. At [140] and [141] pp 72–73.

28. See *Vairy v Wyong Shire Council* (2005) 223 CLR 422 at 460–62.

29. At [176] p 88.

30. At [137] p 71.

31. At [168] p 83.

32. At [172] p 86.

33. At [249] p 121.

34. The defendant has filed an appeal in this matter.

What is your lost chance worth?

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In *Halverson v Dobler* [2006] NSWSC 1307; BC200609964 (see article by Peter King beginning on p 45) and *Tabet v Mansour* [2007] NSWSC 36; BC200700483, the respective plaintiffs submitted two alternative arguments: first, they should be awarded full damages because the defendants' breach of duty had caused their respective injuries; and second, if they could prove breach of duty but could not prove that the breach had caused their respective injuries, they should be awarded damages for the value of the chance lost (that is, for Kurt Halverson that he may have had a successful outcome had an ECG been performed, and for Reema Tabet that she would have had a better outcome had a cranial CT scan been performed and treatment instituted earlier to relieve intracranial pressure caused by a medulloblastoma).

The law on loss of a chance

Since the NSW Court of Appeal decision of *Rufo v Hosking* [2004] NSWCA 391; BC200407209, there have arguably been two rational bases upon which a court could determine whether a loss of a chance was capable of calculation. Prior to *Rufo,* courts were guided and informed by a line of cases, most relevantly the High Court decision of *Malec v J C Hutton* (1990) 169 CLR 638. *Malec* does not disturb the standard of proof when assessing liability, on the balance of probabilities, it only has application to the assessment of damages. Applying the *Malec* rationale, one must first determine, on the balance of probabilities, that loss has been suffered — that is, greater than a 50 per cent chance. When liability has been established, the plaintiff's damages are discounted by the percentage chance that the injuries would have occurred in any event.

By contrast, the *Rufo* test only requires a plaintiff to establish on the balance of probabilities that they have lost the chance of a better outcome had the negligence not occurred. The lost chance need not be 50 per cent or greater. *Rufo* was concerned with a chance that was less than 50 per cent. Even though Santow JA in *Rufo* (at 688–90) had suggested that the loss of a chance analysis should apply where the chance is greater than 50 per cent — that is, to all such cases — his Honour found that to do so would displace the presently accepted standard of proof in medical negligence cases. On his Honour's analysis, *Malec* would continue to apply where causation has been proved on the balance of probabilities and *Rufo* to chances of less than 50 per cent. As his Honour found that Kurt had at least a 65 per

cent chance of revealing the long QTS had an ECG been performed on or after 4 February 2001, the *Malec* test would apply. Full damages were awarded on the basis that had effective treatment been administered, there was only a negligible chance of a cardiac arrest occurring.

In *Tabet,* his Honour Justice Studdert found that there were four separate causes of cognitive impairment and other injuries caused by a medulloblastoma, only one of which arose out of a medical practitioner's negligence. The negligence was found in failing to arrange an earlier cranial CT scan, which would have led to diagnosis of a medulloblastoma. His Honour, following *Rufo,* noted that Miss Tabet had to prove that, on the balance of probabilities, there was a real chance she would have had a better outcome if the negligence had not occurred — findings which his Honour made upon the available evidence. In assessing the loss of a chance, his Honour noted that *Rufo* invited a 'robust and pragmatic approach' (at [366], quoting *Rufo* at [405]) to determining the value of the lost chance and that, at least in this case, it was highly desirable to do so upon a percentage basis, despite the absence of expert evidence quantifying the loss of a chance in percentage terms. After analysing the available evidence, his Honour found that there were four causes of brain damage and other injuries to Miss Tabet, only one of which arose out of negligence — he thought that this cause was not the dominant one, instead being significantly less than the combined contribution of the other, non-negligent causes, to the brain damage and other injuries. His Honour thought that the negligent cause made no more than a 25 per cent contribution to the brain damage and other injuries (noting at each of the four causes contributed to the major heads of damage, namely non-economic loss and past and future care costs). His Honour then determined that there was a 40 per cent chance that the absence of negligence would have offered a better outcome. Accordingly, Miss Tabet recovered 40 per cent of 25 per cent of a full value damages award.

Halverson and *Tabet* are important decisions for many reasons, not least of which being the courts' analysis and findings upon loss of a chance. The amalgamated *Malec/Rufo* test is an attempt to provide a rational and workable basis of addressing loss of a chance in medical negligence cases. Whether the High Court would allow percentage recovery for loss of a chance less than 50 per cent, but full recovery for a loss of a chance greater than 50 per cent (subject to any *Malec* deduction), remains uncertain. The present test is unlikely to bring certainty to this issue without further judicial deliberation. ●

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AUSTRALIAN Health LAW BULLETIN

Recent amendments to stem cell legislation

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ALLENS ARTHUR ROBINSON

Federal Parliament passed an Act late last year that will permit the creation, development and use of human embryos for research and clinical purposes. These amendments to the *Prohibition of Human Cloning Act 2002* (Cth) (the PHC Act) will take effect on 12 June 2007.

How does it affect you?

- The PHC Act is amended through a new Pt 2 that will remove the blanket prohibition on the creation of human embryos and provide for certain activities to be permitted by licence.
- Amendments to the *Research Involving Human Embryos Act 2002* (Cth) (the RIHE Act) will facilitate the licensing of research and clinical treatment involving the creation, development and use of human embryos

The *Prohibition of Human Cloning for Reproduction and the Regulation of Human Embryo Research Amendment Act 2006* (Cth) (the Amending Act) amends the PHC Act and the RIHE Act. The amendments are based on the recommendations of the Lockhart Review, which was discussed by Margaret Otlowski in a previous issue of the *Australian Health Law Bulletin*.[1]

Amendments to the PHC Act

The PHC Act currently imposes a blanket prohibition on the creation of human embryos, except for treatment associated with assisted reproductive technology (ART). The essential amendments to the PHC Act are contained in a new Pt 2 that will remove the blanket prohibition on the creation of human embryos and provide for certain activities to be permitted by licence.

Creation and development of embryos

The following activities will be permitted by licence from the National Health and Medical Research Council (NHMRC) Licensing Committee under the RIHE Act:

- creating a human embryo by a process other than fertilisation of a human egg by human sperm or the development of such an embryo;
- creating or developing a human embryo containing genetic material provided by more than two persons by a process other than fertilisation of a human egg by human sperm;
- using precursor cells taken from a human embryo or human foetus, intending to create a human embryo; and
- creating a hybrid embryo.

Undertaking any such activity without a licence will be an offence carrying a penalty of up to 10 years' imprisonment.

Relevantly, the PHC Act will no longer prohibit therapeutic cloning by the creation of embryos through technologies such as somatic cell nuclear transfer. It should be noted that the PHC Act will absolutely prohibit developing a human embryo outside the human body for a period of more than 14 days (excluding periods where development is suspended).

The RIHE Act will allow hybrid embryos to be created for the purposes of testing sperm quality in ART centres and by somatic cell nuclear transfer involving the insertion of a human nucleus into an animal oocyte.

Other amendments

The definition of 'Human Embryo' in the PHC Act will be replaced by the following definition:

> **Human Embryo** means a discrete entity that has arisen from either:
> (a) the first mitotic division where fertilisation of a human oocyte by a human sperm is complete; or
> (b) any other process that initiates organised development of a biological entity with a human nuclear genome or altered human nuclear genome that has the potential to develop up to, or beyond, the stage at which the primitive streak appears; and has not yet reached 8 weeks of development since the first mitotic division.

According to the Explanatory Memorandum, this amendment has been made to reflect the position that the first mitotic division is the time at which fertilisation is complete and an embryo is formed and to include embryos created by means other than fertilisation, such as somatic cell nuclear transfer and parthenogenesis. The eight-week period of development does not include periods where development is suspended.

The title of the PHC Act will be changed to the *Prohibition of Human Cloning for Reproduction Act 2002* (Cth), according to the Explanatory Memorandum, to indicate that the PHC Act will no longer absolutely ban the creation of human embryos for research and clinical purposes.

The PHC Act will be reviewed again after 12 December 2009.

Amendments to the RIHE Act

The RIHE Act regulates the use of human embryos and provides the statutory framework for licences to be issued for the creation, development and use of human and hybrid embryos. Amendments to the RIHE Act will facilitate the licensing of research and clinical treatment involving the creation, development and use of human embryos.

Use of human embryos

Currently, the RIHE Act contains an absolute prohibition on the use of human embryos, except for excess ART embryos. The RIHE Act will be amended to permit the use, by licence from the NHMRC Licensing Committee, of embryos created in accordance with the amendments to the

PHC Act. Further, research or training, for the purposes of ART, that involves the fertilisation of a human egg by a human sperm up to but not including the first mitotic division, outside the body of a woman, will also be permitted by licence.

Using embryos in the manner permitted by the RIHE Act without a licence will be an offence carrying a penalty of up to five years' imprisonment.

Licences

As foreshadowed above, the RIHE Act will be amended to give the NHMRC Licensing Committee the power to grant licences authorising:

- the use of excess ART embryos;
- the creation of human embryos other than by fertilisation of a human egg by a human sperm, and the use of such embryos;
- the creation of human embryos other than by fertilisation of a human egg by a human sperm that contain genetic material provided by more than two persons, and the use of such embryos;
- the creation of human embryos using precursor cells from a human embryo or a human foetus, and the use of such embryos;
- research and training involving the fertilisation of a human egg by a human sperm up to, but not including, the first mitotic division, outside the body of a human woman for the purposes of research or training in ART; and
- the creation of hybrid embryos by the fertilisation of an animal egg by a human sperm and the use of such embryos up to, but not including, the first mitotic division for the purposes of testing sperm quality in an accredited ART centre.

A condition of any such licence will be that proper consent must be obtained, in accordance with guidelines issued by the CEO of the NHMRC, from each responsible person before the creation or use of an embryo.

Enforcement

Provisions will also be inserted into the RIHE Act to provide for warrants to be issued allowing inspectors to enter premises for the purposes of investigating whether the PHC Act or the RIHE Act have been complied with.

Review of the RIHE Act

The RIHE Act will be reviewed again after 12 December 2009.

Reports

The Amending Act also requires the Minister for Health and Ageing to prepare reports on the establishment of a National Stem Cell Centre, a national register of donated excess ART embryos, and the making and the feasibility of establishing a national legislative or regulatory approach for non-blood human tissue-based therapies. ●

Using embryos in the manner permitted by the RIHE Act without a licence will be an offence carrying a penalty of up to five years' imprisonment.

James Somerville, Lawyer,
Allens Arthur Robinson, Brisbane.

Endnote

1. See Otlowski M 'The Lockhart Report on human cloning and the regulation of research involving human embryos: an overview' (2006) 15(2)&(3) *AHLB* 20–24.

AUSTRALIAN Health LAW BULLETIN

Discrimination in the provision of medical treatment

Alana Petty
ALLENS ARTHUR ROBINSON

In *Wood v Calvary Heath Care ACT Ltd* [2006] FCA 1433; BC200609084, the court had to consider whether a hospital discriminated against a patient by refusing certain medical treatment on the basis of the patient's history of drug use and morphine dependency.

This case serves as a reminder to medical practitioners that it is unlawful to discriminate against another person on the ground of a disability in the provision of medical services.

Background

The Calvary Hospital (the hospital) offered a nursing program called Calvary at Home (the CAH scheme), which enabled patients to be treated at home by a visiting nurse rather than being admitted to the hospital. In this case, the patient presented at the hospital suffering from pneumonia and was prescribed intravenous antibiotics to be followed by a course of oral antibiotics. While her doctor recommended that she be admitted for treatment, the patient advised that she did not wish to be admitted. A CAH nurse spoke with the patient and took her medical history. The patient advised that she had a history of intravenous drug use and was morphine dependent. The patient was later advised by the hospital that she could not be treated at home because of her history of drug use and the associated occupational health and safety risks to the nurses who would be treating her.

The patient complained to the Human Rights and Equal Opportunity Commission, alleging that the hospital had unlawfully discriminated against her on the ground of her disability (being her past drug addition). The complaint resulted in an application being filed in the Federal Magistrates Court.

Decision of the Federal Magistrates Court

It was not disputed that the patient did in fact have a disability as defined in the *Disability Discrimination Act 1992* (Cth) (the Act) by reason of her past intravenous drug use and morphine dependency. The issue for the Federal Magistrates Court was whether the hospital had discriminated against the patient by refusing to provide the services of the CAH scheme to the patient contrary to the provisions of s 24(1)(a) of the Act, which provides as follows:

> It is unlawful for a person who, whether for payment or not, provides goods or services, or makes facilities available, to discriminate against another person on the ground of the other person's disability ... by refusing to provide the other person with those goods or services ...

Notwithstanding that the federal magistrate accepted the evidence of the patient that she had been told she could not be treated under the CAH scheme because of her history of drug use, the question of fact central to the application was whether the CAH scheme was closed at the time the patient had sought to be included in it. The hospital had led evidence that the CAH scheme had been closed at the relevant time because of the illness of the nurse responsible for the home visits. In the circumstances, the hospital argued that there could be no discrimination because the patient was unable to be accepted into the program whether or not she had a disability. The magistrate accepted the argument and concluded that there must be a service available to be offered before the service could, in any meaningful sense, be said to have been refused contrary to s 24.

Appeal to the Federal Court

The patient appealed the decision to the Federal Court.

First, the patient contended that the finding that the CAH scheme was unavailable was wrong and contrary to the weight of evidence: the fact that staff may not have been available for the next couple of shifts could not be considered evidence of any general closure or unavailability of the CAH scheme.

The Federal Court accepted that it was conceivable that a nurse may have been available to treat the patient at her home on the afternoon following her initial visit to the hospital. However, the difficulty for the Federal Court in accepting the proposition was that the hospital's witness had not been cross-examined to establish whether there would have been a nurse available the following afternoon. The matter was further complicated by the fact that the patient had not attempted to establish at the trial that the closure of the CAH scheme was qualified or limited. In the circumstances, the Federal Court could not be satisfied that the magistrate erred in finding that the CAH scheme was closed due to staff shortages.

Second, the patient argued that, even if the CAH scheme was unavailable, it did not follow that there had been no breach of s 24(1)(a) of the Act. It was said that the availability of the service, at least where it was established that the service generally existed and the would-be service provider held itself out as providing that service, was an issue relevant to reasons for the act to which s 10 of the Act applied. Section 10 provides that, if an act is done for two or more reasons and one of the reasons is the disability of a person, then, for the purposes of the Act, the act is taken to be done for that reason.

In considering the interpretation to be given to s 24(1)(a), Justice Moore

noted that, in his opinion, the section did not cease to apply where a discriminator was for some reason temporarily unable to provide the goods or services. Accordingly, His Honour concluded that it may well be that the identification of the patient's prior drug use as a reason for not offering her treatment at home was an unlawful consideration.[1]

Ultimately, the Federal Court concluded that the finding that the CAH scheme was closed could only sensibly lead to the conclusion that the patient was treated no differently than a person without the disability would have been treated — neither of them would have been provided with the service. From comments made by Justice Moore, it seems that the outcome might have been different had the patient sought to lead evidence at the trial that the CAH scheme was only temporarily unavailable and that the service could have been provided to her in the immediate future.

Conclusion

This case serves as a reminder to medical practitioners that it is unlawful to discriminate against another person on the ground of a disability in the provision of medical services. 'Disability' is defined extremely widely to include a disorder, illness or disease that affects a person's thought processes, perception of reality, emotions or judgment or that results in disturbed behaviour and includes a disability that presently exists, previously existed but no longer exists, may exist in the future or is imputed to a person. ●

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Endnote

1. His Honour did, however, note that this characterisation was conditional because the defence of unjustifiable hardship raised by the hospital had not been considered.

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