IN THE DISTRICT COURT
AT WELLINGTON

I TE KŌTI-Ā-ROHE
KI TE WHANGANUI-A-TARA

[2022] NZACC 79 ACR 24/21

UNDER	THE ACCIDENT COMPENSATION ACT 2001
IN THE MATTER OF	AN APPEAL UNDER SECTION 149 OF THE ACT
BETWEEN	DALE CHALMERS Appellant
AND	ACCIDENT COMPENSATION CORPORATION Respondent

Hearing by AVL: 9 March 2022

Appearances: B Hinchcliff for the appellant
F Becroft for the respondent

Judgment: 5 May 2022

RESERVED JUDGMENT OF JUDGE DENESE HENARE
[Treatment Injury s 32 Accident Compensation Act 2001]

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[1] The appellant, Dale Chalmers, was diagnosed with multiple sclerosis in 2000. She was 38 years old at the time. She experienced progressively limited mobility and balance problems.

[2] In November 2017, Ms Chalmers was diagnosed with a giant calcified thoracic disc protrusion at the T6/7 level with severe compression of the thoracic spinal cord. She was referred for spinal surgery, which was undertaken in February 2018.

[3] Ms Chalmers claims cover for post-operative paraplegia caused by the surgery as a treatment injury.

[4] The parties agree there is a causal nexus between the surgery and the post-surgery paraplegia. However, the Corporation declined the claim on the basis that paraplegia is

within the normal range of consequences of the particular surgery undertaken, and thus an ordinary consequence of the surgery. This decision was upheld at review.

Agreed facts

[5] An MRI scan was taken in November 2017. It showed a large disc protrusion at T6/7 with severe canal narrowing secondary to the disc protrusion.

[6] Dr Pereira, Neurologist, referred Ms Chalmers for a surgical opinion (suggesting that surgery was indicated because the disc pathology was contributing to her immobility).

[7] Ms Chalmers was seen by Mr Yee, Orthopaedic Surgeon in December 2017. He discussed surgical options with her and also the significant risks associated with such a surgery and in particular the high risk of spinal cord injuries and thus paraplegia.

[8] The surgery was performed by Mr Yee on 7 February 2018.

[9] Post-surgery Ms Chalmers did not appear to have any voluntary lower motor extremity power.

[10] Post-surgical reports were provided by Mr Chan, Orthopaedic Surgeon and Mr Yee. These confirmed post-operative paraplegia.

[11] On 12 February 2018, Mr Yee filed a treatment injury claim describing the paraplegia as an unexpected and devastating outcome for all involved.

[12] Mr Yee provided a further report on 26 February 2018. He confirmed that there was some kind of injury to the spinal cord although it was not clear exactly what that injury was. He also indicated that the surgery was difficult and that Ms Chalmers was counselled pre-operatively in regard to the potential devastating outcome.

[13] The Corporation sought independent advice from Mr Pai, Orthopaedic Surgeon, who reported on 5 April 2018. He concluded that the surgical technique was of a high standard. He accepted that there was the development of a new neurology related to the surgery. He however described the likelihood of total paraplegia without proceeding with the surgery as

being quite high, and the neurological deterioration being not an unknown complication following such a major surgical intervention.

[14] On 2 May 2018, the treatment injury claim was declined on the basis that the paraplegia was an ordinary consequence of the surgery. A review application was lodged against that decision at the time, but it was subsequently withdrawn. A second and late review application was filed in April 2019, which eventually led to the substantive review.

[15] In the meantime, additional reports were obtained from Mr Pai. These were dated 17 November 2019 and 24 May 2020.

[16] Ms Chalmers also filed a new report from Ms Noventa, Physiotherapist, dated 27 October 2020. Ms Noventa opined that the paraplegia following surgery was not an expected outcome and that the surgery was the reason for the paraplegia, not the MS.

[17] The review proceeded in December 2020 before Mr Walker, Reviewer. The Reviewer noted that there was no dispute that the paraplegia was associated with the surgical procedure and focused on the ordinary consequence test. He concluded that the adverse outcome experienced by Ms Chalmers represented an ordinary consequence of the treatment she received and dismissed the review application.

[18] A Notice of Appeal was filed on 6 January 2021.

Medical evidence

[19] In her letter of referral dated 17 November 2017 marked "urgent outpatient review" to the Orthopaedic Unit at North Shore hospital, Dr Pereira set out the medical case for surgical intervention:

> Over the past 10 years she has developed episodic and subsequent progressive lower limb symptoms and immobility which were thought to be MS related. **In 2010 she was able to walk 300 metres without support. She is now just able to manage 50 metres.**
>
> **She has had recent MRI imaging of her brain and spine to investigate this deterioration. This shows active multiple sclerosis with an inflammatory lesion in the brain. Spinal imaging shows a calcified thoracic disc at T6-7 with marked compression of the spinal thoracic cord. There is some atrophy above and below the level of that compression. The canal measures down to just 1-1.5mm at the site of this likely calcified giant thoracic disc herniation. In the lumbar region there is also**

disc disease with moderate spinal stenosis at the L3-4 level and mild compression of the cauda equina. There are no spinal cord MS lesions to account for her marked lower limb disability.

... **We do have effective treatments for multiple sclerosis in 2017 and I do think she should proceed with surgical intervention for this disc as I believe it is contributing to her immobility.**

[Emphasis added]

[20] Twenty-three days later, on 8 December 2017, Mr Yee, Orthopaedic and Spinal Surgeon saw Ms Chalmers and noted significant mobility issues. He stated:

> On examination today she presented in an electric scooter. She has extreme difficulty walking even a very short distance of a few metres to the examination bed. There is marked gait ataxia with a clear right-sided foot drop. **Neurological examination reveals patchy altered sensation in a non-dermatomal pattern in the lower limbs. She also describes a degree of hyperesthesia in the right leg. Power testing demonstrates more significant weakness in the right side in comparison to the left.**
>
> [Emphasis added]

[21] Mr Yee's report of 8 December 2017 noted Ms Chalmers has "an extremely limited walking tolerance of no more than 5-10 metres". He took a medical history of a progressive deterioration over the years in gait and leg function. Mr Yee confirmed the diagnosis made by Dr Pereira of a massive calcified T6/T7 thoracic disc with severe cord compression. He arranged a CT scan to check the level of calcification.

[22] Mr Yee's report referred to his discussion with Ms Chalmers, noting her spinal cord compression and early signs of cord impairment as indicators for surgery. He advised of the significant risks of surgery. He stated:

> ... **I have advised her that her thoracic spinal cord compression is amenable to surgical intervention, but unfortunately it is associated with a number of significant risks. Traditionally, thoracic disc removals are associated with a high risk of spinal cord injuries and thus paraplegia. If the disc is calcified it will often be completely adherent to the dura and a dural tear is very likely to occur as a result of attempting to remove it.** I have advised that the other risks of surgery are inclusive but not exclusive of death, medical problems post-operatively, bleeding and requiring a blood transfusion, complications of blood transfusions, thromboembolic issues such as DVT and PE, infection, non-union, mobility from use of either autograft or allograft bone for the fusion, positioning issues including blindness and incomplete resolution of symptoms. I have advised that if the procedure is performed posteriorly, one often needs to sacrifice a thoracic nerve root which can result in some numbness around the chest wall. Alternatively, if the surgery is performed through the thoracotomy then there is some morbidity associated with the approach and also deflation of the lung. If the disc is heavily calcified and a dural tear occurs during the anterior approach this could result in a

catastrophic problem of a CSF fistula into the chest. This can be a very difficult problem to solve.

I have advised Ms Chalmers that if we were to perform a posterior procedure to her spine it may well be appropriate to consider further imaging after the surgery to check on the adequacy of the decompression. **I have also advised her that if there are any neurological problems following the surgery she may well require rehabilitation in the spinal unit.**

Ms Chalmers informs me that she understands that she has significant problems and also that the surgery is also high risk. However, she is keen to consent to surgery to have her spine decompressed.

[Emphasis added]

[23] Ms Chalmers stated in her evidence at review she was advised of the stark choices before her and if she did not receive the operation:

MS CHALMERS: Yes, calcified discs, yeah. I think there was two – but they were growing into my spine, I think. Yeah, the opposite, yeah.

MR WALKER: And that was hence the referral for surgery, yeah?

MS CHALMERS: Yes. Well, yeah, I hadn't even left the hospital and Dr Pereira phoned me and told me what they'd found.

MR WALKER: Yeah.

MS CHALMERS: And I didn't know how serious it was and I said to her, "Well, how serious is that? What does it mean?" And she said, "Well, put it this way", she said, "Dale, if it was me I would be bashing the surgeon's door down to get it operated on". So, yeah, so I said, "Oh, okay then, it must be serious". And she said if I didn't have it I would become a tetraplegic in no time. So I didn't really see that I had much choice.

MR WALKER: And why did you have that – what – how did you form that view? Is that what you were told or was that just a conclusion that you drew?

MS CHALMERS: When they told me I would be a tetraplegic I didn't want that, so I –

MR WALKER: So – so, what were you told about what? Were you told it was a progressive condition?

MS CHALMERS: Well – and, well, going by two – yeah, yeah, and by going – going by how quickly my leg had changed within the year, I thought, wow, this is – this is really – it is moving fast. So I thought – I just sort of quickly said to Emma, "Well, really we don't have much choice, I don't want to be a tetraplegic". And I was told there would be a 20 to 25% chance of being paralysed. So I thought, well, I had to take the chance, yeah.

[24] The evidence shows Mr Yee conferred with his colleagues at Middlemore Hospital regarding the surgical method he proposed to adopt in the operation.

[25] The surgery took place on 7 February 2018.

[26] In an operation note of the same date, Mr Yee recorded the operation entailed four different surgical procedures: T5 to T9 instrumented posterolateral fusion; T6/7 decompression; T6/7 excision/removal of calcified disc; and patching and sealing of ventral dural tear. Mr Yee also reported the massive calcified disc was severely adherent to the dura in the ventral aspect.

[27] Mr Yee commented in a separate note dictated at 8.25 pm on the day of the operation following his ward round, that the surgery was uneventful and spinal cord monitoring gave good signals. He noted postoperatively Ms Chalmers was incoherent and he was unable to truly assess the neurological situation in her lower limbs.

[28] The next day, a post-operative note from Mr Chan, Orthopaedic and Spinal Surgeon, recorded his concerns in the immediate post-operative period that Ms Chalmers did not appear to have "voluntary lower motor extremity power". Mr Chan stated:

> I discussed the situation with her [Ms Chalmers]. I have detailed how calcified thoracic disc prolapses and surgery for these can be associated with cord problems. This was previously outlined to her extensively by Mr Yee.

[29] An MRI was undertaken of the spine on 8 February 2018 which showed an "ill defined focus of intramedullary T2 high signal intensity within the spinal cord at the T6/T7 level".

[30] Following his ward round on 8 February 2018, Mr Yee recorded "significant weakness in the lower limbs along with lack of general sensation". He noted "the clinical picture today

is suggestive of post-operative paraplegia which is one of my major concerns from the operation". He arranged further review by a spinal colleague.

[31] Mr Chan discussed imaging findings with the radiologist and Mr Yee. He noted "a very satisfactory decompression of her thoracic disc prolapse has been performed", but there appeared a "high signal area to the spinal cord at this level".

[32] Mr Yee also reported his review of the MRI scan of the spine with the radiologist in a note dated 9 February. He said there had been a "good decompression at the T6/T7 level":

> However, at the level of the discectomy, there is some high signal within the spinal cord area. This could represent an area of cord infarction, residual myelomalacia or a pseudomeningocoele in the region. This is exactly the area where I had a dural tear as a result of removing the large, calcified thoracic disc and it is also the area where it has been patched…
>
> … I have called her partner today and explained the findings. **I have also explained that one of my biggest concerns was postoperative paraplegia which appears to have occurred**.
>
> [Emphasis added]

[33] The diagnosis of post-operative paraplegia was confirmed. Mr Yee referred Ms Chalmers to the Auckland Spinal Rehabilitation Unit on 10 February 2018, indicating in his referral letter:

> The patient was advised that her clinical findings could be attributed to either severe spinal cord compression from the thoracic disc or as a result of the multiple sclerosis. **I advised her surgery was a possibility, but unfortunately there is a higher risk of spinal cord malfunction or paralysis following this type of surgery**.
>
> [Emphasis added]

[34] Mr Yee completed a treatment injury claim form on 12 February 2018, and he prepared a report of the same date setting out the medical history and treatment injury details. He commented: "Technically surgery went well. Ventral dural tear occurred but this was anticipated". In his letter to the Corporation, Mr Yee set out the surgical details and concluded:

> **The patient has been referred to the Spinal Injury Unit for Rehabilitation. I would like to make a claim for a treatment injury on behalf of the patient as the outcome of paraplegia is unexpected and devastating for all parties involved. I accept the fact she was quite weak before surgery but now has no meaningful lower limb function.**
>
> [Emphasis added]

[35] On 26 February 2018, Mr Yee responded to questions from the Corporation:

> There are two specific questions ACC have asked and they are difficult to answer. The first question relates to whether I can identify an actual physical injury to the spinal cord resulting in the paraplegia post-operatively. This unfortunately is not simple to answer as the spinal cord itself is covered by the dura and is actually not visualised at the time of surgery. **She did sustain ventral dural tear which allowed egress of cerebral spinal fluid**. However, the spinal cord is not visible from this small ventral lesion. **At the time of surgery there was no direct trauma to the spinal cord itself. In other words there was no lacerations of the area. There was no spinal cord manipulation. However, following surgery with both the first MRI scan and subsequent MRI scan there is clear signal change within the spinal cord. This is indicative of some kind of injury to the spinal cord. Pre-operatively there was some signal change, but certainly worse afterwards.** It could be related to even ischaemic changes as a result of the hypertension from having a general anaesthetic. **I suspect the spinal cord injury has occurred as a result of a combination of issues. A degree of hypertension from the anaesthesia, altered cord perfusion during the decompression and secondary inflammatory issues as a result of surgery.**
>
> **In regards to the secondary question about Ms Chalmers likelihood of sustaining the injury, the surgery is difficult. The patient was counselled pre-operatively in regards to this potential devastating outcome.** As clearly documented in the clinical notes, she had progressive weakness in her lower limbs in comparison to her upper limbs. A subsequent whole spine MRI identified the severe spinal cord compression at the T6/T7 level from a massive calcified disc, Ms Chalmers reports progressive weakness in the legs and the expectation without surgical intervention is for progressive weakness to occur. However, the timeframe for this to occur is uncertain.
>
> **I wish to make clear that Ms Chalmers still had some reasonable leg function prior to surgery despite her multiple sclerosis and also spinal cord compression. Following surgery to remove the massive calcified disc, she is paraplegic and there has been a definite deterioration in her neurological function.**
>
> [Emphasis added]

[36] The Corporation sought independent advice from Mr Pai, Orthopaedic Surgeon.

[37] On 5 April 2018, Mr Pai detailed the relevant medical information and noted that he had "gone through his [Mr Yee's] surgical approach of 07/02/2018 and his surgical technique was of high standard". He also noted the MRI of 8 February 2018 was clear there was no evidence of surgical cause for the paraplegia and it was clear "there was ill defined intramedullary focus of T2 high signal intensity within the decompressed cord of T6/T7 which measured about 6 mm and about 8 mm long".

[38] In response to the question whether there was a physical injury causing paraplegia, Mr Pai stated:

> **... in my opinion, the development of new neurology (complete paraplegia) is related to her surgery and is a known complication of surgery in this rare complex spinal condition and this neurological deterioration has been widely reported as being 24 to 75 percent in giant calcified disc surgeries.**
>
> **Mrs Chalmers had impending cord compression prior to surgery and that was the indication for surgery as without surgery her likelihood of total paraplegia was quite high and there was an absolute indication for the performed surgery.** Neurological deterioration is not an unknown complication following such major surgical interventions and an informed consent has been taken about this risk.
>
> [Emphasis added]

[39] Whether the paraplegia was an ordinary consequence of the treatment, Mr Pai referred to the medical literature and he listed five vulnerabilities with any tumour or giant calcified disc, and stated:

> **These vulnerabilities are not under the control of the treating surgeon and these make cord or nerve roots vulnerable after any surgery more so in the presence of a giant calcified disc which is adherent as in this case.** Reference 10 suggested that the surgical treatment performed in 53 of 60 patients with trans dural spinal cord herniation and the neurological outcome was satisfactory in only 44 cases. In other words the neurological complications even in best centres is around 20% following surgery. **However even considering the high rate of complication, their conclusion was that surgical treatment should be offered as without surgery the progression of neurology would be quite high.**
>
> [Emphasis added]

[40] The Treatment Injury Report attached to the decision dated 2 May 2018 referred to the report from Mr Pai and his reference to the incidence of neurological deterioration as being between 24 to 75%, that:

> On review of the clinical information available ACC has identified the new symptoms you are experiencing are from progression of your underlying spinal cord impairment and multiple sclerosis following the surgery performed on 07/02/2018. Literature shows there is a very high incidence of this occurring in this particular case.
>
> It is for this reason your claim is not eligible for cover.

[41] Mr Pai provided further comment for the Corporation at review. In a Supplementary Report dated 17 November 2019, Mr Pai considered an article produced at review, opining that the article was irrelevant to the particular circumstances of Ms Chalmers. Mr Pai confirmed his previous opinion, that "the incidence of deterioration has been around 20% in her case taking into consideration pre-existing multiple sclerosis as there is bound to be some deterioration in anyone with multiple sclerosis following surgery".

[42] The Corporation subsequently obtained further comment from Mr Pai, who responded briefly in an email dated 24 May 2020, stating:

> In my opinion she [Ms Chalmers] has undergone appropriate surgical technique. I cannot confirm any specific physical injury as casing[sic] the progression of her paraplegia considering she has had rare surgery for impending paraplegia with co-existing multiple sclerosis. In my opinion she would likely have developed the same symptoms as her condition ran its natural course.

[43] A report was produced for Ms Chalmers at review from Ms Noventa, Physiotherapist, dated 27 October 2020. Ms Noventa responded to the question "is it more likely than not that the paraplegia was caused by surgery and did this create an element of surprise or not". Ms Noventa stated she was unclear about certain aspects of the advice provided by Mr Yee, for example there was no mention of possible percentages indicating risk in the preoperative letter, though these might have been discussed verbally. She thought defining element of surprise is difficult. She opined while the paraplegia "was a possible outcome it was likely not an expected outcome".

[44] Ms Noventa also responded to the question "would the underlying multiple sclerosis have caused the paraplegia anyway or would multiple sclerosis have caused different types of lower extremity symptoms". Ms Noventa stated that:

> **MS is a progressive deteriorating neurological condition characterised by periods of exacerbation and remission. A significant number of patients eventually become wheelchair bound. This tends to happen over a long period of time as opposed to the rapid onset of complete paraplegia experienced by Mrs Chalmers post surgery....**
>
> **The expert opinions including the treatment injury decision seem to be all in agreement that some aspect of the surgery is the reason for the paraplegia and not the underlying condition of multiple sclerosis.**
>
> [Emphasis added]

Agreed issues

[45] There is no dispute that Ms Chalmers received treatment from a registered health professional on 7 February 2018 being the surgery performed by Mr Yee.

[46] The parties also agree the evidence supports a causal nexus between the surgery and the post-surgery paraplegia.

[47] The only issue to resolve is whether or not the post-surgical paraplegia is an ordinary consequence of the treatment, taking into account all of the circumstances of the treatment, including Ms Chalmers' underlying health condition and the clinical knowledge at the time of the treatment.

Appellant's submissions

[48] Mr Hinchcliff submits that paraplegia is not an ordinary consequence of the surgery.

[49] Referring to the Court of Appeal's decision in *Ng*, Mr Hinchcliff submits "not an ordinary consequence" is defined as "something out of the ordinary which occasions a measure of surprise".

[50] Mr Hinchcliff submits Mr Pai's reports should be set aside for reasons including the altered risk assessments in his two reports. Mr Pai had stated paraplegia for Ms Chalmers was between 4% and 20%. However, in Mr Hinchcliff's submission the actual risk was between 4% and 10% as multiple sclerosis was not a risk factor for the paraplegia due to surgery. In Mr Hinchcliff's submission 4% to 10% is not within the range of ordinary consequence.

[51] Mr Hinchcliff acknowledged that Ms Chalmers was advised of the risks before surgery but submitted that the predicted outcome of surgery is not the focus.

[52] Mr Hinchcliff referred to the claim lodged by Mr Yee and his statement that paraplegia is unexpected and devasting for all parties involved. As a result, the outcome was not a necessary or ordinary consequence of the treatment.

Respondent's submissions

[53] MsBecroft submits that Ms Chalmers' situation prior to surgery was bleak and she was advised the risk of paraplegia following surgery was high.

[54] Ms Becroft also submits the reports of Mr Yee both before and following surgery together with Mr Chan's reports following the surgery, provide a context which does not indicate any surprise. Ms Becroft submits while the outcome was devastating, their reports

indicate that paraplegia was within the normal range of consequences of the complex surgery undertaken by Ms Chalmers.

[55] Ms Becroft refers to Mr Pai's evidence, describing the paraplegia as a "known complication of surgery in this rare complex spinal condition".

[56] In Ms Becroft's submission, statistics are of variable quality and do not provide a definitive answer of what is an ordinary consequence. Ms Becroft submits the questions to be borne in mind are whether the outcome was within the normal range of outcomes, something not out of the ordinary, something not occasioning a measure of surprise being mindful of the particular circumstances both of the patient and relating to treatment.

[57] Ms Becroft submits Ms Noventa's report is not helpful because she does not consider the Court of Appeal's test in *Ng*.

Legal framework

[58] In order to establish cover for a treatment injury Ms Chalmers must meet the requirements of s 32(1) of the Accident Compensation Act 2001 ("the Act") which relevantly provides:

> **32 Treatment injury**
>
> (1) Treatment injury means personal injury that is—
>
> (a) suffered by a person—
>
> …
>
> (ii) receiving treatment from, or at the direction of, 1 or more registered health professionals; …
>
> … and
>
> (b) caused by treatment; and
>
> (c) not a necessary part, or ordinary consequence, of the treatment, taking into account all the circumstances of the treatment, including—
>
> (i) the person's underlying health condition at the time of the treatment; and
>
> (ii) the clinical knowledge at the time of the treatment.

[59] The leading case concerning the meaning "ordinary consequence" is the decision of the Court of Appeal in *Ng*.[1]

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1 *Accident Compensation Corporation v Ng* [2020] NZCA 274, [2020] 2 NZLR 683.

[60] The High Court had earlier determined that an ordinary consequence was something that was more probable than not – a consequence that has a 50 per cent or greater chance of occurring.[2] The Court of Appeal rejected this interpretation, and stated:[3]

> [67] What then is the correct interpretation of "not an ordinary consequence?"
>
> [68] In our view, it should be interpreted as meaning an outcome that is outside of the normal range of outcomes, something out of the ordinary which occasions a measure of surprise. That is an interpretation that we consider, as did the Court in *Childs v Hillock*, best captures Parliament's intent in the context of a scheme which is underpinned by the concept of "personal injury by accident' and which does not provide universal compensation for sickness or ill-health. So, for example, side effects of chemotherapy of a nature and severity that are encountered reasonably often and occasion no surprise are ordinary consequences of that chemotherapy even if (as will often be the case) such side effects are not encountered in more than 50 per cent of cases.
>
> [69] Whether an adverse consequence is inside or outside the normal range of consequences of the medical treatment given to a particular claimant is ultimately a matter of judgment for the decision maker. It is to be exercised on a case-specific basis taking into account all the circumstances of the treatment and the particular claimant. Thus, relevant circumstances will include not only the nature of the harm suffered but also its duration and severity as well as any other circumstances pertaining to the patient which may have rendered them more or less susceptible to the adverse consequence. The decision may be informed by medical studies including relevant statistical analysis (subject to the reservations detailed below) as well as the clinical experience of the treating physician physicians(s) and other specialists.
>
> [70] As raised with counsel during the hearing, we consider that some caution is required when drawing on statistical analysis contained in medical studies of the kind referred to in the decisions below, and in the expert evidence before us. Many of these studies involve small numbers of cases, and often the results are not accompanied by any measure of their statistical significance. There may also be significant differences between the group studied – patients in a particular hospital or on a specialised programme for example – and the group of recipients of similar treatment(s) in New Zealand. The way in which the treatment group is defined, and the way in which adverse outcomes are defined, will often involve significant judgment. These factors underscore the problematic nature of a test based on statistical frequency alone, including the 2001 test of rarity and the Judge's professional test, focused on whether the adverse consequence is more probable than not. The 2005 amendment deliberately moved away from a statistical assessment of risk to a test that requires the exercise of judgment.
>
> [71] We acknowledge the temporal distinction between risk and consequence as highlighted by Ms Peck. Although risk assessments undertaken by doctors are based on the frequency of past actual occurrences and therefore are clearly relevant, we agree the focus should be on whether the outcome that occurred is within the range of ordinary consequences rather than whether the risk of the outcome was predicted in advance of treatment in a particular claimant's case.
>
> [72] We also acknowledge that our interpretation does not provide the precision or comprehensive guidance that counsel, especially Ms Peck, were seeking. However,

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2 *Accident Compensation Corporation v Ng* [2018] NZHC 2848.

3 *Accident Compensation Corporation v Ng,* above n 1, at [67]–[72].

> Parliament has chosen to use an imprecise test and in our view the Court would be straying beyond its proper function to disregard that and superimpose a structure of its own creation. As noted by this Court in *Vodofone New Zealand v Telecom New Zealand*, the Court must guard against "taking an inherently imprecise word and 'by redefining it thrusting on it a spurious degree of precision'". If the lack of precision in s 32 is problematic, it is for the legislature to resolve.

[61] While this decision sets out some principles for guidance, the Court of Appeal explicitly states their approach does not provide the precision or comprehensive guidance sought on behalf of the appellant.[4] Further, the Court of Appeal considered the language of s 32 of the Act indicated a move away from statistical frequency alone to tests that have a degree of flexibility and permit the decision maker to exercise judgment.[5] This is a positive approach because treatment injury claims show an extraordinarily wide variety of circumstances from which these cases arise, and this fact alone indicates the difficulty of attempting an exhaustive definition.

[62] The Court's decision is clear that the assessment of whether something is "surprising" is "ultimately a matter of judgment for the decision maker".[6] Therefore, neither evidence whether a patient was surprised by an adverse consequence nor evidence that a medical professional was not surprised by an adverse consequence is determinative. These views inform the decision maker considering an objective assessment of the evidence.

[63] If a patient's viewpoint is considered determinative, no adverse outcome would be an ordinary consequence because as noted by Ms Noventa: "Patients often consider complications to be rare and that they will not happen to them." Similarly, if a medical professional's opinion is determinative, most adverse consequences would be ordinary consequences because very few adverse outcomes will surprise a medical specialist.

[64] The Court of Appeal interpreted the meaning of "not an ordinary consequence".[7] The Court held the phrase means: "an outcome that is outside the normal range of outcomes, something out of the ordinary which occasions a measure of surprise".

[65] The Court of Appeal held that a decision maker must exercise judgment on a case specific basis taking into account all relevant circumstances concerning the treatment and also

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4 At [72].
5 At [69].
6 At [69].

concerning the particular claimant. The relevant circumstances outlined by the Court that should be taken into account by the decision maker include:

[a] The nature, duration and severity of the harm suffered.[8]

[b] Circumstances relating to the patient which may have made them more susceptible to the adverse consequence.[9]

[c] Medical studies, including statistical analysis, but subject to the following reservations:[10]

[i] Statistics should be read with caution. Care should be taken to ensure that studies are relevant.[11] Studies are also sometimes statistically insignificant.[12]

[ii] Statistical analysis is only one of the relevant factors. It is not determinative.[13]

[d] Clinical experience of the treating physicians and other specialists but subject to the reservation that the focus is not whether the adverse outcome was predicted in advance.[14]

[66] Finally, alongside these relevant circumstances, the Court of Appeal outlined three circumstances where it considers an outcome is or is not an ordinary consequence. The first example is from *Ng,* and the other two outcomes are outlined in the Court's judgment in *Adlam v Accident Compensation Corporation.*[15] Although the Court's relevant statements in *Adlam* were subsequently treated as obiter in *Ng,*[16] the examples outlined in *Adlam* are still instructive. The example from *Ng* is as follows:[17]

> ... side effects of chemotherapy of a nature and severity that are encountered reasonably often and occasion no surprise are ordinary consequences of that chemotherapy even if

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7 The Court of Appeal explicitly rejected the precise tests proposed by counsel at [54]–[60].
8 At [69].
9 At [69].
10 At [69].
11 For example, in the current case, I note that Mr Pai in his second report explained why a study found by the Reviewer was not relevant; the study considered a different condition to that suffered by Ms Chalmers.
12 At [70].
13 At [70].
14 At [69] and [71].
15 *Adlam v Accident Compensation Corporation* [2017] NZCA 457, [2018] 2 NZLR 102.
16 *Accident Compensation Corporation v Ng,* above n 1, at [21].
17 At [68].

(as will often be the case) such side effects are not encountered in more than 50 per cent of cases.

[67] The two examples from *Adlam* are:[18]

> [42] ... That then leads to the question of whether the injury suffered was not a necessary part or ordinary consequence of the treatment, taking into account the matters referred to in ss 32(c)(i) and (ii). That is a question of fact.
>
> [43] Suppose a drug is administered which, as a result of an unanticipated allergic reaction causes injury. It is clear that there has been treatment injury. The injury was plainly not the ordinary consequence of the treatment, which would never have been administered had the consequence been anticipated.
>
> [44] Next, take the case of a nerve cut during surgery, the nerve being in an unanticipated position. That will be covered because there could be no argument that the cutting of the nerve was an ordinary consequence of the surgical procedure undertaken.
>
> [45] In both these kinds of case the factual issue raised by s 32(1)(c) can easily be answered. There is no doubt what has occurred is not a necessary part of the treatment. In other cases the issue may not be so easily determined.

[68] I now turn to consider whether Ms Chalmer's paraplegia was an ordinary consequence of her surgery.

Discussion

[69] Ms Chalmers' evidence at review shows she faced stark choices when informed of the seriousness of the giant calcified thoracic disc herniation compressing her spinal cord. The decision for surgical treatment was undertaken because of the chance it offered to stem the rapid decline in her mobility. Ms Chalmers explained that by 2016, 2017 she could not walk unaided. She said:

> And both legs had got-well so bad ... and it just happened so quickly. And so my husband requested a MRI to check that everything was all right and that's when they found the discs lodged in my spine, which was causing the other leg to be partially paralysed.

[70] Following the MRI, the neurosurgeon set out the case to the orthopaedic and spinal surgeon to consider surgical intervention. Dr Pereira outlined the extent of deterioration following imaging of the brain and spine, noting "active multiple sclerosis but no spinal cord MS lesions." Dr Pereira set out the impacts of the thoracic disc protrusion encroaching and narrowing the spinal canal, with some atrophy above and below the T6/7 level.

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18 *Adlam v Accident Compensation Corporation,* above n 17, at [42]–[45].

[71] By the time Ms Chalmers saw Mr Yee 23 days after consultation with Dr Pereira, her walking ability had deteriorated from 50 metres to 5–10 metres and she presented at consultation on an electric scooter. Mr Yee's advice to Dr Pereira confirmed the giant calcified disc herniation was amenable to surgery. Mr Yee told Ms Chalmers that if she did not have surgery, her condition would most likely lead to paraplegia. Mr Yee also explained to Dr Pereira his advice to Ms Chalmers about the risk of the operation:

> I have advised ... it is associated with a number of significant risks. Traditionally, thoracic disc removals are associated with a high risk of spinal cord injuries and thus paraplegia.

[72] The evidence shows the underlying condition of multiple sclerosis contributed to some of the symptoms experienced by Ms Chalmers pre-operatively, for example incontinence for bladder function noted by Mr Yee and Mr Pai. Dr Pereira described the giant calcified disc as "contributing to her immobility" which implies contribution to immobility also from the underlying multiple sclerosis. In his preoperative report, Mr Yee stated:

> I have advised that she has two problems which could produce similar clinical findings. I have advised her that the multiple sclerosis and the thoracic myelopathy could produce symptoms of weakness, coordination issues of the lower limbs. It can also result in problems with her bowel and bladder function. **Unfortunately, I cannot advise her on how much of a contribution that each problem is causing to her symptoms.**
>
> [Emphasis added]

[73] However, Mr Yee was clear the underlying multiple sclerosis was not an impediment to proceeding with the surgery. It is also clear the surgery was complex, with the medical literature before me describing such surgery involving a giant disc impacting the spinal cord as a "surgical challenge".

[74] The specialist evidence agrees the surgical procedure went smoothly. The operation note shows there was a ventral tear of the dura with the removal of the final fragments of the disc. The dural tear at surgery was anticipated. Mr Pai noted the surgical technique and method were of a very high standard. Removal of the giant disc at T6/7 level was achieved, with repair undertaken of the dural tear. There was no direct trauma to the spinal cord during the operation with the monitoring demonstrating good signals. The only matter Mr Yee was uncertain of was the reliability of the monitoring in context of multiple sclerosis. However, in *Adlam* terms there is no evidence to suggest breach of an appropriate standard.[19]

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[19] *Adlam,* above n 17.

[75] Following surgery, the first and subsequent MRI scans showed a clear signal change in the spinal cord. Mr Yee's post-operative ward-round reports indicated that paraplegia was one of his major concerns, which was a concern also shared by Mr Chan. Once it became clear that Ms Chalmers was suffering from paraplegia, Mr Yee lodged the treatment injury claim.

[76] In a subsequent letter to the Corporation, Mr Yee stated "the outcome of paraplegia is unexpected and devastating for parties involved". Mr Hinchcliff submitted Mr Yee's statement that "the outcome was unexpected and devastating" is clear evidence the outcome of the surgery was not an ordinary consequence. Mr Hinchcliff submitted that "unexpected" and "a measure of surprise" go hand in hand.

[77] In my view, Mr Hincliff has over-stated the position. Taking into account all of the circumstances both of the treatment and those relating to Ms Chalmers, whilst the paraplegia was certainly neither expected nor desirable, it was not surprising. This is manifest from the clinical reporting of Mr Yee before the surgery and upon discovering the fact of the post-surgery paraplegia, taken together with the reporting from Mr Chan.

[78] Mr Yee indicated in his correspondence to Dr Peirera that he had told Ms Chalmers there was a high risk of paraplegia. Mr Yee's subsequent statements need to be read within that context together with all his clinical reporting, including his comments made to the Corporation whether paraplegia was an ordinary consequence of the surgery, having regard also to Ms Chalmers' underlying health. Paraplegia is a devastating outcome and not the outcome anyone wanted. The consequence of paraplegia was unexpected to the extent that it was not the desired outcome. For this reason, I give little weight to Mr Yee's description of the outcome as "unexpected" in assessing whether Ms Chalmer's paraplegia occasioned a measure of surprise.

[79] Ms Noventa subsequently used similar language to Mr Yee when she opined that "defining an element of surprise" is difficult. She referred to the example of car accidents that occur on a regular basis, yet most people do not get into a car expecting to have an accident. Ms Noventa opined while paraplegia was a possible outcome, it was likely not an expected outcome. However, the question as framed for Ms Noventa contains only part of the Court of Appeal's discussion in *Ng* and no reference is made to an ordinary consequence being within the normal range of outcomes or the requirement to take account of Ms Chalmers' underlying

health. Further, the Court accepts Ms Becroft's submission that Ms Noventa's analogy to car accidents demonstrates she has not properly understood the test for ordinary consequence. For these reasons, I place little weight on Ms Noventa's opinion.

[80] Mr Pai commented whether the paraplegia was an ordinary consequence of the surgery. Mr Pai described paraplegia as "a known complication of surgery in this rare complex spinal condition" and "this neurological deterioration has been widely reported as being 24 to 75 percent in giant calcified disc surgeries".

[81] Mr Pai outlined the significant risk factors involved where there is a giant thoracic disc that requires surgical treatment. In his second report, the Court observes Mr Pai was asked to consider a specific article discussed by the Reviewer against the "more likely than not test". However, I find this question did not affect the content of Mr Pai's report as he focused on describing Ms Chalmer's surgery and the statistical likelihood of paraplegia following that surgery. He referred to a number of references in medical literature to support his opinion. He noted a number of factors including the vulnerabilities relating to alignment of the thoracic spine; the close proximity of the cord area to the anterior pathology in the case of giant disc herniation; that giant calcification is often adherent to the dura; that mobility of the spinal cord is limited in the thoracic area; and the thoracic cord is vulnerable to ischaemic injury. Mr Pai noted these factors make cord or nerve groups vulnerable after any surgery in the presence of an adherent giant calcified disc as in this case.

[82] Finally, Mr Pai concluded in his second report:

> In Ms Chalmers case ... I have given updated information with further references of an article of 2018 which is on 164 cases at major centres where neurological deterioration may vary from 4 to 10%. I have provided the incidence of deterioration as being around 20% in her case taking into consideration of pre-existing multiple sclerosis as there is bound to be some deterioration in anyone with multiple sclerosis following surgery.

[83] Mr Hinchcliff made two points. First, he submitted the focus must be on the outcome that occurred and whether it is within the range of ordinary consequences, rather than the risk of the outcome predicted in advance of treatment. This is correct. The Court of Appeal stated that ordinary consequence is not answered by statistical assessment of risk alone. However, that does not mean statistics are an irrelevant consideration.

[84] Secondly, Mr Hinchcliff submitted the risk of the paraplegia, according to Mr Pai, changed in his two reports from 24 to 75% in his first report, to between 4 and 10% in general and 20% in respect of Ms Chalmers. I prefer Mr Pai's second report as it developed the medical reasoning from his first report with reference to evidence, including medical literature. Whilst Mr Pai does not indicate the source for his 24 to 75% statistic, I observe the 4 to 10% statistic is supported by a 2018 study provided in evidence.

[85] On the other hand, I place less weight on Mr Pai surmising that the risk of post-operative paraplegia was increased to about 20% given the presence of Mr Chalmers' multiple sclerosis because Mr Pai does not indicate the basis for this claim. Whilst Ms Chalmers' multiple sclerosis may have made her more susceptible to post-operative paraplegia, the evidence is not clear the multiple sclerosis increased the risk by 10 to 16% as suggested by Mr Pai.

[86] Standing back and considering all the evidence objectively, Ms Chalmers was facing a high risk of paraplegia without surgery. Surgery offered an opportunity to decrease the risk of paraplegia, but there was still a high risk of paraplegia.

[87] The analysis is summarised by considering the facts within the framework of relevant circumstances outlined by the Court of Appeal:

[a] The nature of the harm suffered is paraplegia. It is a severe condition that will prevent Ms Chalmers' from walking for the rest of her life.

[b] Ms Chalmers' multiple sclerosis may have made her more susceptible to post-operative paraplegia since it was contributing to her immobility in the view of Dr Pereira.

[c] Mr Pai's analysis of medical statistics indicates there is in general a 4 to 10% chance of post-operative paraplegia after the type of surgery undertaken by Ms Chalmers.

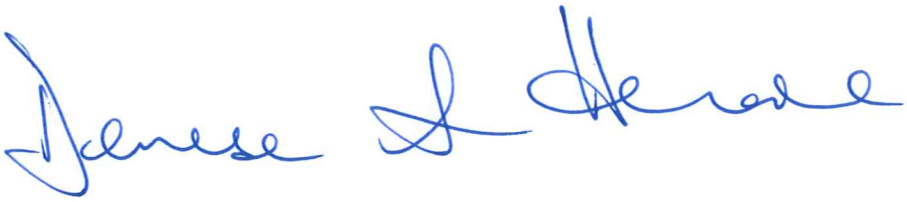
[d] Mr Yee indicated before the operation was performed there was a high risk of post-operative paraplegia.

[88] Determining the sole issue before me, I find while the paraplegia is devastating, Ms Chalmers' post-operative paraplegia was within the normal range of consequences of the surgical treatment, and thus an ordinary consequence of the surgery.

Decision

[89] The appeal is dismissed.

[90] There is no issue as to costs.



Judge Denese Henare
District Court Judge

Solicitors: ACC Employment Law, Auckland for the appellant
Medico Law, Auckland for the respondent