ACCIDENT COMPENSATION CORPORATION

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18 June 2007

Professor J C Theis
Orthopaedic Surgeon
Otago District Health Board
Private Bag 1921
Dunedin

COPY

Dear Professor Theis

Request for Specialist Report

Trevor John Smith
55 Tay Street
Mosgiel

Date of birth: 3 July 1953
Date of injury: 9 April 1981
ACC 45 number: UV37516
NHI number: ARC5307

I am writing to engage your expertise and time and request that you arrange to examine Mr Smith, review the various medical reports and records held by the parties (including ACC, Mr Smith and by the Dunedin Public Hospital), and provide ACC with a report that addresses a number of questions in regard to injuries suffered, or alleged to have been suffered, in or as a consequence of the accident on 9 April 1981. It is fair to say that Mr Smith's case has become quite complex in terms of issues and injuries over the years. I would therefore suggest that you may wish to allow some additional time for the consulation with Mr Smith, as he is likely to have a number of matters to discuss with you in relation to his accident and the various reports that have been written over the intervening years, and the opinions expressed in those reports. Mr Smith advises ACC that x-rays from the time of the accident (1981) may no longer be held on his hospital file. I note that they were last viewed and referred to by Mr Hodgson in his report of 24 November 1992. ACC appreciates that additional time and therefore cost will be incurred for this, and for reviewing the extensive medical information, as well as writing your report.

BACKGROUND:

While working for a logging contractor and felling trees on 9 April 1981 Mr Smith sustained fractures to the left transverse processes of L1, L2 and L3. This was the result of a tree falling over his upper lumbar spine. X-rays taken in 1982 showed that the fractures had healed well and there was no evidence of bony changes relating to the bodies and fracture elements of the lumbar vertebrae. At a review on 22 September 1982 A Campbell felt that there was scarring to the paraspinal muscles as a result of the accident, and this was the cause of the ongoing fibrocytic pain. He felt the pain would gradually ease with time. The disc spaces were noted to be preserved, there was no evidence of disc protrusion, and no instability of the lumbar spine.

Scarring was also mentioned in Professor Jeffery's report dated 23 November 1982. He describes 'significant' scar tissue formation in the deep paraspinal muscles on either side of the transverse processes and states that this accounted for the discomfort experienced in

cold weather, and when the claimant attempted to carry heavy weights. He notes that there was no apparent injury to the discs, the posterior intervertebral joints or the neural elements of the spinal cord or nerve roots. Professor Jeffery also noted on examination that there was no spinal deformity apart from slight flattening of the normal lumbar lordosis.

The claimant was seen by Professor Alldred on 16 March 1984. He noted no deformity of the spine on examination but thought that the lumbar spine showed a slight degree of deformity of lateral curvature. He described the injury as "*..substantially a large muscle injury..* ", noting that the Mr Smith reports improvement in his condition over the last two years.

A report written by Mr Matheson on 18 March 1987 notes that Mr Smith "*to have loss of his normal lordosis with a slight postural scoliosis, indicative of ongoing lumbar spasm.*" He goes on to note that "*At the time of his injury* [accident] *he had some narrowing of the lumbo sacral junction and there is possibly some slight increase in narrowing in recent radiographs. Apart from this, there is no change in the radiological picture.*"

Mr McMillan, in his report dated 12 May 1988, noted that there was no deformity in the lumbar spine on examination.

Mr Swan, in his report dated 20 May 1992, noted that "*The location of this current problem is far removed from the transverse processes of L1, 2 and 3 but, from his description when the tree fell across his back, he was well flexed and it is not possible to exclude damage to the lumbosacral disc at the time of injury* [accident] *particularly as the degeneration has been progressive on X-rays taken since 1981. While disc degeneration at the lumbosacral junction is common in the population without injury, it is not possible at this stage to definitely say that this current problem is not the result of personal injury by accident and should, in view of the documented injury* [accident] *in 1981 constitute a valid claim against the Accident Compensation Corporation.*"

Following a CT scan in 1993 Mr Hodgson reported on 18 February 1993 that "*There was minor narrowing of the L5/S1 level with some degenerative changes in the facet joints but there was no focal nerve root or disc lesions seen at either level.*" He noted that "*.. obviously he has soft tissue scarring around the lumbar spine ..*".

An x-ray of the lumbar spine taken on 21 February 2000 showed straightening of the lumbar lordosis, degenerate changes affecting the lower two lumbar discs and the lumbosacral discs, all being narrowed. An x-ray of the pelvis and hips showed both hips were well preserved.

An MRI was undertaken on 5 March 2002, and under the heading "Clinical" in the report, a previous pelvic fracture was noted. ACC is unsure where this emanates from, or upon what it is based. We note that there was no mention of a pelvic fracture when the MRI was reported on by the Radiologist. He did report that there was a mildly diminished T2 disc signal at the lower three intervertebral discs along with mild thecal sac indentation from mild disc protrusion (left paracentral) at L4/5, and that there may be some impingement on the budding left L5 nerve root but the L4 nerves exit satisfactorily.

The MRI scan in 2002 is reported by Mr Hodgson as showing "*... desiccation of the lower 3 lumbar discs, there is a left sided bulge at the L4-5 level abutting the left L5 nerve root though not frankly compressing it. The L3-4 and L5-S1 levels look satisfactory on the axial views, the rest of the lumbar spine looked normal.*" Mr Hodgson reported on 9 December 2004 that when he saw Mr Smith in 1992 and 1993 it was his opinion that "*He suffered from mechanical back pain which I felt related to degenerative changes present in his lower lumbar*

spine". He noted that *"His plain x-rays on 24 November 2004 showed degenerative changes present in the L4/5 and L5/S1 disc spaces"* and *"His MRI scan from Dunedin Hospital in 2002 showed desiccation of the L4/5 disc spaces and to a lesser extent the L5/S1 disc space. There was a small central annular tear of the L4/5 disc but no specific nerve root compression."* He states again in conclusion that *"Trevor has continued to suffer from mechanical pain which I think is related to the degenerative process present in the lumbar spine and it is consistent with this."*

DISCUSSION:

As mentioned above, on 23 November 1982 Prof Jeffery makes the diagnosis of 'significant' scarring. ACC is unclear as to the basis of Prof Jeffery's diagnosis as he provides no reasoning for his opinion. Undoubtedly there would be scarring present but ACC is unclear of the basis upon which Professor Jeffery says there is 'significant' scarring. Examination findings say there was *"deep tenderness in the upper left lumbar area".* Xrays do not show scarring of course.

It could be that this opinion was based largely on the history of pain and the known scarring that would have occurred as a result of the fractures, extrapolated to the point of 'significant' scarring as a way of explaining the persistence of the symptoms. Our conclusion is based on the following:

1. While there was an injury, this has been shown by xray to have healed.

2. The injury was to the bones on the left side and the tenderness on examination was on the left side but Prof Jeffery says the scarring affects BOTH sides of the spine.

3. ACC has not seen this explanation used in other cases of transverse fractures.

4. Medical concepts in the area of pain have changed a lot since 1982. Previously many diagnoses invoked damage to many of the structures of the lower back. At present it is acknowledged that without quite specific diagnostic, invasive procedures, it is not possible to be certain about which structures have been damaged. Today chronic pain due to changes in neural function without actual structural damage is accepted as a legitimate diagnosis for ongoing pain.

5. This diagnosis is not used by surgeons in their reports of recent times. Rather they use the term of mechanical back pain. This does not reference specific structural damage but rather pain that occurs with certain predicted activities that involve the lower back. Mr Matheson records this in his report of 18 March 1987, as does Mr Hodgson in his report of 24 November 1992 and 9 December 2004.

Prof Jefferies notes no evidence of other injured structures.

Professor Alldred on 16 March 1984 felt there had been an injury, substantially to the large muscles. His examination notes did not include any comment about pain in the injured area, but noted some reduced range of motion

On 18 March 1987 Mr Matheson did not detect any reduced spinal movements. He noted no tenderness in the lower back but noted that *"At the time of his injury he had some narrowing of the lumbosacral junction".* This was not noted by any previous specialists. Professor Jeffrey did not report this when he viewed the x-rays taken on 9 April 1981 and 2 July 1982, and was not reported by Mr McMillan when he viewed x-rays taken on 12 May 1988 and compared them to those mentioned in Professor Alldred's report of 16 March 1984.

Mr Matheson offered the diagnosis of mechanical low back pain. ACC believes his report included a typographical error in that he meant to say *"...this (mechanical low back pain) is not UNCOMMON in the general population who is doing this type of work"*. He felt there was a link between the discomfort and the accident to the extent that he *would "support a small (our emphasis) award under section 78 of the ACC Act."*

In Mr McMillan's examination on 12 May 1998 he found no tenderness and he agreed with Prof Alldred's report and noted there had been no change in the healed fractures from that time.

On 20 May 1992 Mr Swan's examination noted a full range of motion and no tenderness was noted. He did note the changes at the lumbosacral disc on xray. His diagnosis was that the symptoms present at that time related to the lumbosacral disc-resorption and degeneration. He noted this is not at the same level of the transverse fractures. He stated he could not definitely say Mr Smith's *"current problem is not as the result of personal injury by accident"*. Causality cannot however be established on the basis of not being able to exclude the accident as a cause. There must be a rationale, when the medical evidence for and against is weighed, that makes it more likely than not that the current problem is linked to either the accident or an injury suffered in the accident.

Mr Hodgson's examination on 24 November 1992 showed no tenderness to palpation and he felt after reviewing a CT scan on 18 February 1993 that *"he has soft tissue scarring around the lumbar spine"*.

Mr Hodgson's review of the MRI scan on 12 August 2002 notes desiccation of the lower 3 lumbar discs, a left sided bulge at L4/5 abutting but not compressing the L5 nerve. In December 2004 Mr Hodgson comments that when he saw Mr Smith previously he felt Mr Smith *"suffered from mechanical back pain which I felt related to degenerative changes present in his lower lumbar spine"*. After examining him and reviewing the radiology Mr Hodgson still felt Mr Smith suffered *"from mechanical pain which I think is related to the degenerative process present in the lumbar spine"*. Mr Hodgson does not say anything about the relationship between the present symptoms and the original accident.

1. Leaving aside the exact diagnosis, whether there is a link between the present pain and the accident we have Prof Jeffery, Alldred and Campbell making the link; Mr Hodgson not commenting, and Mr Matheson saying there is some contribution. Mr Swan is not able to say clearly.

   The diagnosis is unclear. Early diagnosis uses the concept of scarring of the adjacent muscle. More recent diagnoses invoke degeneration, one specialist, Mr Matheson links it to the accident. Mr Swan thinks it may be related but via a different injury, but not accepted by ACC.

2. Loss of lumbar lordosis is usually regarded as being due to muscle spasm. Muscle spasm can be due to a variety of problems, among which would be an injury or degeneration.

3. L4/5 and L5/S1 degeneration is seen widely in the population, and is often asymptomatic. Both Mr Swan and Mr Matheson specifically say this. Mr Matheson feels this is the present diagnosis and that there is a small contribution from the original accident. Mr Swan also feels this is the present problem but is not able to say on the balance of probabilities that the degeneration is linked to the original accident or injury.

This degeneration is at a different level to the transverse fractures ACC has covered and is likely to be seen in people who have not suffered this type of injury.

The transverse fractures are radiologically healed. Any pain arising from these fractures is due to a pain syndrome, which no specialist has invoked, or muscle scarring, which three have. However no recent surgeon has endorsed the diagnosis of muscle scarring, which raises the question of whether, while this might have been the problem in the past, is it still the problem today?

QUESTIONS:

To help establish ACC's responsibility in relation to the event on 9 April 1981 we would appreciate your comment and opinion on the following questions. It would be appreciated if you could reply in the same numbered format as the questions are posed, and for you to provide the medical rationale for any opinion you are able to give. If you are unable to provide an opinion on any of the questions posed for any reason, please describe why you are unable to do so.

1. Please describe in detail your current findings and diagnosis(es) of Mr Smith's present condition.

2. For each diagnosed condition, where you are able to, describe:

   (a) All the possible origins (i.e. causes) in Mr Smith's case.

   (b) The most likely cause in Mr Smith's case, from all the possible causes identified in (a), and on what medical basis you are able to arrive at this opinion on likelihood.

3. In relation to the scarring recorded by clinicians around the time of the accident on 9 April 1981 could you please comment, if you are able to, on:

   (a) The likelihood that scarring was present after and caused by the fractures to the L1 – L3 transverse processes, and the medical basis upon which this likelihood would have been reached.

   (b) The likelihood that this scarring was significant, and the medical basis upon which this likelihood could have been established.

   (c) The likelihood that scarring is still present today, given the originally noted tenderness is no longer present according to recent examination findings, and the medical basis upon which this likelihood has been reached.

4. Radiological investigation has revealed pathology in Mr Smith's lower lumbar spine. Mr Matheson (18 March 1987) indicates that this was evident at the time of the accident on 9 April 1981, and Mr Swan (20 May 1992) reports a progressive decrease in the lumbosacral disc space with some evidence of instability over the period since the accident. Would you please provide comment, if you are able to, on:

   (a) Whether there is evidence on the x-rays taken in 1981 of an existing pathology present at Mr Smith's lumbosacral disc space, and the likelihood that this would have:

      i. Pre-existed the accident on 9 April 1981 as Mr Matheson suggests, or

ii. Was caused in the accident on 9 April 1981, the possibility of which Mr Swan could not definitely exclude, or

iii. First developed after, and therefore is unrelated to the accident on 9 April 1981.

Please describe the medical evidence upon which you were able to reach any opinion on the likelihood of either.

5. The reported basis for Mr Smith's pain has changed over the years when reviewing the opinions of the various medical commentators. Originally it was reported to have been on the basis of scarring following the fracture injury to the upper lumbar spine, then later reported as "mechanical back pain" and linked to the degenerative processes in the lower lumbar spine. Are you able to describe:

(a) All the possible causes for the back pain (if any) that Mr Smith experiences today.

(b) The likelihood that the basis of Mr Smith's current symptomology is related to:

i. Pathology in his lower lumber spine as reported by Mr Matheson (18 March 1987) and Mr Swan (20 May 1992), and the medical basis upon which this likelihood has been reached, or

ii. Scarring that was stated to be present following the fractures to the left transverse processes of L1, L2 and L3, and the medical basis upon which this likelihood has been reached, or

iii. The healed fractures to the L1 – L3 transverse processes themselves, which no medical commentator has thus far suggested, and the medical basis upon which this likelihood has been reached, or

iv. Some other cause, and if so what this cause is, and the medical basis upon which this likelihood has been reached.

(c) The likelihood that the cause of Mr Smith's pain has changed between the time of his accident and now, and on what medical basis you are able to arrive at this opinion on likelihood.

6. Are you able to confirm from radiological investigations undertaken on Mr Smith whether there is evidence of there being:

(a) A fracture(s) to either the left and/or right hip, and/or

(b) A fracture(s) to the pelvis, and

i. All possible causes in Mr Smith's case of any fracture that shows as having occurred, and

ii. The most likely cause in Mr Smith's case from all the possible casuses identified in (i), and on what medical basis you are able to arrive at this opinion.

7. Medical commentators (A Campbell 22/9/82, Professor Jeffery 23/11/82, J Matheson 18/3/87 and Swan 20/5/92) record either a flattening or loss of the normal lordosis, or lateral curvature or unbalancing of the spine, while later

commentators (McMillan 12/5/98 and Hodgson 9/12/04) record no deformity or normal alignment of the lumbar spine. A CT Scan in 2000 records a straightening of the normal lordosis. Are you able to comment and provide an opinion on:

(a) Whether Mr Smith has any change to the normal curvature of his lumbar spine.

(b) What all the possible causes of any change to the normal curvature in Mr Smith's spine are, and

(c) What is the most likely cause in Mr Smith's case, from all the possible causes, and on what medical basis you are able to arrive at this opinion.

8. When considering and consolidating the opinions you were able to express in questions above, please describe in summary the causal relationship, if any, between Mr Smith's presenting condition today, and either the accident or the fractures to the L1 – L3 transverse processes suffered in the accident on 9 April 1981.

I have enclosed copies of the medical reports referred to in relation to Mr Smith. Mr Smith has available, and will bring with him, copies of medical records he has.

It is important that as a medical specialist that you do not allow yourself to be drawn into whether or not there is ongoing responsibility on ACC to provide entitlements to a claimant, but for you to confine your report to providing medical opinions on the medical evidence available to you.

Please quote purchase order number 2590284 on your accompanying invoice, along with the claim number quoted at the head of this letter.

Thank you for your time and patience in attending to this request and if you have any questions in the meantime, please contact me on ☎(03) 479-6916.

Yours sincerely

Ray Wilson
Technical Claims Manager

Please quote the claim number at the top of this letter when contacting us