Dr James Powell
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Orthopaedic Surgeon

22 November 2022

Mr Blake Donaldson
Case Manager
State Cover Mutual
PO Box R1865
ROYAL EXCHANGE NSW 1225

Dear Mr Donaldson

INDEPENDENT MEDICAL EXAMINATION

Re	**:**	[redacted]
Date of Birth	**:**	[redacted]
Date of Injury	**:**	**4 May 2020**
Claim No	**:**	[redacted]
Date of Consult	**:**	**24 October 2022**

Thank you for asking me to see Ms [redacted] on 24 October 2022 at my **Sydney** rooms.

Ms [redacted] was accompanied by her daughter.

Thank you for the documentation provided.

CODE OF CONDUCT

I acknowledge that I have read the Expert Witness Code of Conduct contained in Schedule 7 of the Uniform Civil Procedures Rules 2005. I agree to be bound by the Code.

I also acknowledge that I have read the PIC4 Procedural Directions for Expert Witness Evidence and I agree to be bound by these Directions. To the best of my ability this report has been prepared in accordance with these Directions.

In the preparation of this report I have complied with the requirements of Medicins Legale's privacy policy as outlined in the Australian Privacy Principles.

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INTRODUCTION

At the commencement of the interview I explained the purposes of an independent medico-legal examination. I indicated that I was not a treating doctor and that I was not able to provide any advice.

My report is based on the history provided by Ms [redacted] the appropriate clinical examination and the documentation provided.

BACKGROUND

At the time of development of lumbar pain symptoms in May 2020, Ms [redacted] worked as a library assistant at Ryde Municipal Library.

She had been in the job since 2004, and worked permanent part time, 22 hours per week over 3 days.

Her work involved a wide variety of activities around the library including retrieving books and articles, as well as replacing borrowed items, clearing out the chutes where customers would deposit books, taking in new material, cleaning shelves, and doing general tidying work as needed throughout the library. This often involved bending down to low levels, often close to the floor, and getting up on ladders and stools for elevated work, and so on.

HISTORY

On 4 or 5 May 2020, Ms [redacted] was bending down low cleaning shelves at floor level.

She was doing this for some time and when she went to stand up she developed pain in the lumbar region, more to the right.

This pain radiated into the right lower limb, but she was not sure when this developed. (It could have been on the day, but it could have been sometime afterwards, she could not remember.)

Pain radiated into the right lower limb through the lateral buttock and thigh and to the posteromedial aspect of the calf and ankle.

SUBSEQUENT HISTORY

Ms [redacted] daughter, who worked in the same library, took Ms [redacted] to see her general practitioner on the day that she developed symptoms.

She was then referred for imaging and was found to have some disc troubles in the lower lumbar region. (She indicated L4/5 and L5/S1.)

Ms [redacted] was referred for physiotherapy, and given analgesics.

She found, however, that symptoms became steadily worse and she was unable to get up from a sitting position or get out of a car because of low back and right lower limb pain. She could not stand for very long nor move about without assistance.

Ms [redacted] was referred to a spine surgeon who indicated that she would benefit from a two-level fusion in the lumbar region.

OPERATIVE MANAGEMENT

On 23 March 2021, Ms [redacted] had an L4/5 and L5/S1 instrumented fusion.

This was then followed by rehabilitation involving exercise, movement and the use of analgesics.

She then moved on to a rehabilitation facility in Lane Cove, where she could do hydrotherapy, which she did for 8 weeks or so, and following this moved on for further physiotherapy and exercise.

She found that the surgery and therapy improved the pain symptoms she experienced in the right lower limb, but she continued to have lumbar back symptoms.

She also developed a burning sensation which involved the medial aspects of both thighs and both ankles, although the site varied.

Further assessments were undertaken and Ms [redacted] was referred for cortisone injections into the sacroiliac joints in early 2022, which helped a little for a short period.

Ms [redacted] was then referred for plasma rich plasma injections to the sacroiliac joints and has had three on the right and two on the left, commencing in July 2022, and finishing in September 2022.

She thinks these injections have helped her symptoms a little, but her doctor indicated that the results would not be known for 4 to 6 months after finishing the injections (January to March 2023).

(Dr Saravanja's operative report of 23/03/21 indicates the procedure was an L4/5 decompression and instrumented posterior fusion.)

CURRENT SYMPTOMS

Ms [redacted] gets aching across the lower back which is now in a band across the sacroiliac region. This fluctuates in intensity, often associated with standing, walking or lying down for long periods, and she needs to change position.

She experiences a burning sensation in the lower limbs, indicating the medial thigh or medial ankle region, but these sites vary and are unpredictable.

She finds that she is fatigued with standing or walking and needs to rest.

Ms [redacted] continues to use oral analgesics, mainly Panadol, but Panadeine Forte when needed, and Mobic, and thinks these help blunt her symptoms a little.

She remains under the guidance of her general practitioner, and no other treatments have been suggested at present.

PREVIOUS HISTORY

Prior to the development of symptoms in 2020, Ms [redacted] had had no previous injuries nor symptoms in the lumbar region.

She has had no other injury, illness nor no operation.

WORK HISTORY

As outlined above, Ms [redacted] commenced her job as a library assistant in the Ryde Municipal Library system in 2004, working permanent part time.

Following onset of symptoms she was off work for a short period and tried to return to her normal work but required light duties with hours fluctuating up until the time of surgery.

Following operation, Ms [redacted] was off work for a year and then returned on light duties which she is continuing to do.

Currently she is working 4 hours a day, 2 days per week, with no bending or lifting. She is not sure when this will be upgraded as it depends upon whether there is improvement following PRP injections.

Ms [redacted] immigrated from China in 2001.

In China, she had been an engineer doing university training in the Shanghai region, but working in Beijing.

ACTIVITIES

Ms [redacted] has not been involved in any regular sports nor activities.

DOMESTIC

Ms [redacted] lives in a unit with lift access with her adult daughter.

Since her difficulties began and through her surgery, her daughter has assisted by doing the housework, cooking, shopping, taking Ms [redacted] to appointments, therapy and exercise, and doing all the domestic chores.

EXAMINATION

Ms [redacted] appeared to sit comfortably through the interview. Through the course of this, she was able to sit up straight away from the back of the chair, using her hands to demonstrate her areas of discomfort at the back, turning her torso right and left without dyssynchrony nor obvious discomfort.

She could also flex both lower limbs at the hips with internal rotation and at the knees to bring her ankles and feet up to demonstrate the areas of current burning sensation bilaterally, and could also do this when standing.

As she stood, the surgical wounds were well healed, slightly dimpled, but without focal tenderness.

Her general posture was normal.

She was able to heel and toe-walk with good power and control. She could do a single leg stand and single leg heel raise on both sides, demonstrating good power and balance (although complaining of discomfort in the lumbar region).

In the cervical region, there was slight general restriction of motion without discomfort.

In the upper limbs, she demonstrated full synchronous motion at the shoulders, elbows, forearms and hands.

There was no chest asymmetry and no tenderness of the thoracic nor lumbar spine until the lumbosacral junction where she was tender in the midline and to both sides.

Lumbar movements on formal examination were more restricted with a slight restriction of extension, forward flexion hands to knees, with synchronous recovery. Lateral flexion and rotation were unencumbered to right and left without discomfort.

On abdominal examination, there was some tenderness in the posterior abdominal wall superiorly around the renal angles, and also on the lower abdominal quadrants, right and left, though with no masses and without rebound.

There was slight right discomfort on loading the pelvis laterally.

At the lower limbs, leg lengths were equal. General circulation, temperature and sweating were symmetric.

She demonstrated full movements at the hips, knees and ankles, without focal discomfort and there was straight leg raise to 80° right and left limited by slight hamstring tightness.

Thigh and calf circumference were symmetric with normal muscle tone.

Sensation was intact. Power to manual testing was symmetric and normal, and plantar responses were downgoing, with reflexes being symmetric at the knees and ankles.

There was no discomfort on loading the sacroiliac joints, right nor left.

INVESTIGATIONS

Current imaging was of the ultrasound and CT assisted guidance for injections into the sacroiliac joints.

It is noted in previous report of 7/01/21:

Full spine imaging noted mild thoracolumbar scoliosis. Mild kyphosis in the cervical spine. Disc space narrowing L4/5 with grade I spondylolisthesis. No shift in position with lateral bending. Level pelvis and equal leg length.

CT guided L4/5 foraminal injection was performed on 22/09/20 and 19/11/20.

MR lumbar spine on 9/06/20 showed L4/5 disc desiccation, broad based disc protrusion with a focal central component. Hypertrophic facet arthrosis contributing to canal and subarticular foraminal stenosis. Disc desiccation L5/S1 with small annular fissure.

MR lumbar spine from 20/10/21 (report supplied). Post-operative L4/5 fusion. Vertebral body height maintained. No marrow oedema. No abnormality of the distal spinal cord nor cauda equina. No hardware abnormality L4/5. No canal nor foraminal stenosis. L5/S1 posterior annular fissure possibly larger than on previous imaging. No focal protrusion. Cystic focus adjacent to the right sacroiliac joint unaltered from previous imaging.

CT lumbar spine from 20/10/21 (report supplied). Post-operative showing pedicle screws and fixation device at L4/5 with interbody cage. Alignment is satisfactory. At L5/S1 no disc bulge. No proximal abnormality.

CT chest and angiogram from 31/03/21 did not identify any evidence of pulmonary embolus.

X-ray pelvis and left hip from 4/05/20 did not identify any bone abnormality.

Ultrasound assessment of sacroiliac ligaments was undertaken on 31/05/22 by Dr Sachinwalla, radiologist, who noted thickening of the right iliolumbar ligament and its insertion with some thinning of the interosseous component and some thinning of the dorsal complex. Some thinning of the left interosseous component inferiorly and some thickening of the dorsal complex.

Ultrasound guided local anaesthetic injection to both sides into the ligament complex relieved symptoms with resolution of low back component. Burning sensation persisted. Ankle symptoms resolved. Partial improvement of right medial thigh symptoms.

On the basis of these results PRP injections were recommended.

SUMMARY

This patient developed acute lower lumbar back pain around 4/05/20 when she arose from a crouch position which she had been in for some time cleaning low shelves at the library where she worked as an assistant.

Pain radiated into the right lower limb shortly afterwards.

She was found to have L4/5 grade I spondylolisthesis and central disc protrusion with subarticular stenosis.

Symptoms persisted and she came to decompression and instrumented L4/5 posterior interbody fusion in March 2021 followed by graded therapy and exercise. Post-operatively she developed burning sensation symptoms in the medial aspect of both thighs and ankles and lumbar symptoms have persisted.

She has also had PRP injections to the sacroiliac joints recently with some early symptom improvement.

In answer to your questions:

Background

1. The length of time of the examination.

Interview and assessment took approximately 45 minutes.

2. Confirmation the worker was advised that any complaints about the examination should be raised with you at the time and whether any complaints were raised with you.

The patient had been advised to make any complaints at the time of assessment. There were some initial difficulties in establishing that her English was good enough to proceed without the use of an interpreter with her daughter assisting at times.

3. Updated history including any prior episodes/incidents/symptoms and confirmation that the worker agrees with the history as taken.

History has been outlined above. Acute lumbar back pain and development on 4/05/20 when she arose having been crouched and squatting at some low library shelves cleaning and organising material some time beforehand. Pain symptoms radiated to the right lower limb shortly afterwards.

Initial management was with use of analgesics, reduced work activity and physiotherapy but symptoms persisted.

She came to an L4/5 instrumented posterior interbody fusion in March 2021 followed by rehabilitation with land based and water based exercise. post-operatively she developed burning sensation in the lower limbs in the medial aspect of the thighs and ankles with no structural abnormality identified.

She was found to have some changes in sacroiliac ligaments and following anaesthetic injection which improved local and distal symptoms she has recently undergone PRP injections to sacroiliac joints with some early symptom improvement.

4. Your opinion on radiological investigations to date.

Lumbosacral imaging has identified grade I L4/5 spondylolisthesis with facet arthrosis and central disc protrusion with annular fissure and broad disc bulge at L5/S1.

Subsequent imaging following surgery indicated devices in satisfactory position with adequate decompression and no significant advancement of the L5/S1 disc pathology.

Ultrasound imaging reported changes in various sacroiliac ligaments with thickening and thinning in various components.

This most likely represents a degenerate aetiology.

5. Would you recommend any further diagnostic procedures? If so, please identify the procedure and provide reasons for your opinion.

There is no indication for any further diagnostic procedures nor imaging in the lumbar region.

6. Whether the diagnosis remains the same and whether the condition remains consistent with the stated cause.

The diagnoses with regard to presentation remain the same with background condition being lumbar spondylosis most advanced L4/5 contributing to spondylolisthesis and disc bulge at L4/5 and L5/S1. This is an age and constitutionally related degenerate disorder.

Workplace incident of 4/05/20 given the symptoms and imaging suggest an acute L4/5 disc protrusion producing back pain and right lower limb sciatic symptoms.

Subsequent imaging has shown changes in the sacroiliac ligaments which are most likely of degenerate origin and part of her tendency to degenerate musculoskeletal disease.

She is post stabilisation with no complicating factors at L4/5.

Capacity

7. Is the worker fit for pre-injury duties? If not, what is the worker's current capacity for work and what restrictions do you consider as being appropriate as a result of the workplace condition?

She has persisting pain symptoms with an activity component and so has not returned to her previous level of work but is doing restricted duties with reduced hours avoiding bending, lifting and carrying of objects. Her hours of work are principally determined by her self-reported pain symptoms and she may be upgraded should they improve.

Given her progress thus far and persistence of symptoms with no other treatable pathology it is probable that she will continue to be able to work on a restricted basis indefinitely and the likelihood of returning to unrestricted duties and hours are likely.

8. Do you believe a graded increase in work capacity is appropriate? If so, please provide your recommendations on physical restrictions and work hours, including timeframes, leading up to Previous [redacted] return to her previous-injury duties.

The work capacity is principally limited by her self-reported pain symptoms which persist and are likely to fluctuate. Her work capacity may increase if symptoms improve in the future but it is difficult to predict how much an increase in work will be nor when it is likely. I would be doubtful that the symptoms will resolve given that she also has degenerated disease elsewhere in the musculoskeletal system in the lumbosacral area and some symptom based restriction is likely to persist for the remainder of her working life.

Treatment

9. Are the current treatments and medications appropriate, and reasonably necessary as a result of a workplace condition?

A continued management with physiotherapy, supervised exercise and supported medication for symptom control is reasonable under the guidance of her treating doctor.

The role of PRP injections in degenerate ligament disease is controversial and while it is unlikely to do harm (there being no evidence of complication arising to date) the likelihood of improvement in a degenerate disorder is low.

10. Would you recommend any additional or alternate treatment as a result of the workplace condition? If so, please identify that treatment/medication and provide reasons for your opinion.

There is no indication for any alteration in management.

She should continue with strengthening and balancing exercise to support her lumbar spine and lower limbs which she can do largely herself with intermittent checks by her physiotherapist to chart progress and ensure that she is undertaking her exercise. A combination of land and water based exercise would be reasonable.

Support with oral analgesics to modify her symptoms will also help in her coping with her symptoms and in being able to perform her exercises.

As the condition underlying her troubles is lifelong, her attention to exercise is lifelong.

11. What is the required frequency and duration of current and/or recommended treatment?

As outlined above she should continue her exercise program as outlined by a therapist indefinitely.

Prognosis

12. If not fit for previous-injury duties, when would the worker be so fit?

This is impossible to determine. Despite surgical management of the work related component and assistance with managing an underlying disorder through therapy and exercise and support with analgesics and the use of PRP injection she remains symptomatic. It is unlikely that this will fully resolve given her progress thus far and so the likelihood of returning to her premorbid level of work is low.

13. What is the prognosis for recovery?

It would appear that the work related component has been addressed through her surgery as would be expected with removal of the disc protrusion and with decompression of the degenerate related component at the L4/5 level, with stabilisation of this level with fusion to eliminate the prospect of recurrence.

Her degenerate disease however will persist and follow its natural history with the possibility that stabilisation at L4/5 may influence progression of degenerate disease at adjacent levels (less likely than if the initial pathology had been at L5/S1 where strain on the upper level is higher through the attendance of daily activity).

Only time will determine whether she shows progression of degenerate change. (Imaging thus far has not shown any tendency to this. Although it was commented that her annular fissure had changed in size on imaging this may simply represent variation in image interpretation rather than actual progression of disc failure and no other aspect of her degenerate pathology seems to have progressed to date.)

14. What is the most significant factor preventing a return to pre-injury duties?.

She has underlying degenerate disease in the musculoskeletal system in the lumbosacral region which will remain and will continue to follow its natural history. She is prone to pain symptoms and so it is likely that she will continue along this path and the disease factors particularly her pain symptoms that will reduce the likelihood of returning to her previous level of work.

15. Did Ms [redacted] display any signs of exaggeration or self-prescribed barriers to her recovery and return to pre-injury duties? If so, please identify these.

She did not appear to show any exaggeration in the presentation but she is very symptom focused and such patients frequently have a more prolonged clinical course.

16. Do you believe vocational redirection is indicated?

I would be doubtful that vocational redirection would be useful but rather that accommodating her in her previous workplace within her symptom defined limits would be most reasonable particularly as she quite enjoys working at a public library.

Permanent Impairment

17. Will or does the worker suffer any Whole person impairment Person Impairment as a result of the compensable workplace injury?

Having proceeded to surgery she has rateable permanent impairment in the lumbar region.

18. Has the worker reached Maximum Medical Improvement? If not, when would you expect the worker to reach Maximum Medical Improvement.

She would be considered to have reached maximum medical improvement as her condition is largely stable and even with symptomatic improvement her rateable impairment will not alter by more than 3% WPI in the foreseeable future.

19. Provide your assessment of NSW Person Impairment in accordance with the AMA5 Guides and the NSW Workers Compensation Guides for the Evaluation of Permanent Impairment.

Whole person impairment is assessed using AMA5, Table 15-3 in which she is in DRE lumbar category IV with 20% whole person impairment on the basis of L4/5 stabilisation through fusion following disc protrusion.

Although she has no non-specific sensory symptoms in the lower limbs these are not radicular in nature and there is no additional impairment under SIRA Guidelines, Table 4.2 with regard to persisting radiculopathy.

The surgical wound is well healed, mobile, not specifically tender with slight contour change and as such on TEMSKI scoring would attract 0% rating.

10% deduction would be applicable for the influence of pre-existing degenerate disease contributing to L4/5 disc failure in the workplace incident resulting in 2% deduction leading to 18% WPI as having arisen for the effects of the workplace incident and management.

20. Is a deductible for pre-existing impairment appropriate? If so, what deductible do you consider appropriate in the circumstances of this claim?

This has been outlined above.

Other

21. Any other comments you feel are relevant or appropriate.

There are no other comments that have not been outlined above.

Please do not hesitate to contact me should you require further information or clarification of this report.

Yours faithfully

Dr James Powell
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Orthopaedic Surgeon
WorkCover Approved Impairment Assessor