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Proposed Spinal Impairment Guides modification document – Regulatory Impact Statement

Transport Accident Commission

Spinal Impairment Guides modification document - Regulatory Impact Statement -

July 2014

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26 June 2014

Ms Lee-Anne Gatt
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Dear Ms Gatt

ADVICE ON THE ADEQUACY OF REGULATORY IMPACT STATEMENT

Thank you for seeking advice on the Regulatory Impact Statement (RIS) on the proposed Spinal Impairment Guides Modification Document (GMD).

The Victorian Competition and Efficiency Commission (VCEC) advises on the adequacy of RISs as required under section 12H(3) of the *Subordinate Legislation Act 1994* (the Act). I advise the final version of the RIS received by the VCEC on 25 June 2014 meets the requirements of section 12H of the Act.

The VCEC's advice is based on the adequacy of the evidence presented in the RIS and is focused on the quality of the analysis rather than the merits of the proposal itself. **Therefore, the VCEC's advice the RIS is adequate does not represent an endorsement of the proposal.**

In reaching this view, the VCEC notes that the proposed approach is focused on addressing specific issues with the assessment of impairment from spinal injuries due to motor vehicle accidents. Consequently, the analysis in the RIS is limited to two main elements of the proposal — the assessment criteria for spinal injuries in the proposed GMD and implementation options.

While the RIS does not contain a detailed analysis of options to the GMD or its content, there is a transparent explanation of the main changes that will result from the GMD, the implications of the GMD for injured parties, the reasons these changes were made and the expert panel process used to develop the GMD. This approach is appropriate as the expert panel reached a consensus view on the GMD and all substantive issues raised by stakeholders to date have been incorporated in the GMD released with this RIS. Thus, the VCEC considers that the RIS presents sufficient information on this issue for stakeholders to provide informed feedback on the proposal.

The VCEC also notes that the analysis draws on actuarial estimates that are based on a complex methodology and specific assumptions. The VCEC has assessed the use of these estimates and the transparency of the analysis in the RIS, but has not reviewed the underlying methodology and the choice of specific assumptions. Stakeholders have an opportunity to provide feedback on these issues during the public consultation process.

In the interests of transparency, it is government policy that the VCEC's advice be published with the RIS when it is released for consultation.

If you have any questions, please contact RegulationReview@vcec.vic.gov.au.

Yours sincerely

Andrew Walker
Assistant Director
Victorian Competition and Efficiency Commission

Executive summary

The Transport Accident Commission (Vic) (TAC) administers a statutory no-fault and common law damages compensation scheme for people who are injured or die as a result of a transport accident involving a Victorian registered vehicle.[1] According to the National Competition Policy review of Victoria's transport accident legislation, one of the core objectives of transport accident insurance is to provide suitable and just compensation to this group.

As part of the comprehensive no-fault benefits funded under the scheme, the TAC provides compensation based on an assessment of a claimant's level of impairment. The TAC requires claimants who are likely to be entitled to an impairment benefit to undergo an impairment examination with an accredited medical examiner. The TAC uses the assessment reports from these examiners to determine the claimant's total or 'Whole Person Impairment' (WPI) score. The WPI score represents their proportionate level of physical and psychological impairment directly caused by the transport accident.

All claimants have access to TAC funded medical and like services and, if unable to return to work, income benefits for up to three years. A claimant may also be entitled to additional compensation determined by their assessed WPI. A claimant's WPI determines their eligibility for three types of compensation. The additional types of compensation and their relevant criteria is summarised in Table 1 below.

Table 1: Types of additional compensation based on level of Whole Person Impairment (WPI)

	Criteria	Paid
Impairment benefits	WPI > 10%	Paid in lump sum, incrementally higher based on level of WPI
Common law damages	Claimant cannot be at fault WPI ≥ 30% or 'Serious Injury' certificate granted on narrative criteria	Determined by courts
Ongoing Loss of Earnings Capacity benefits	WPI ≥ 50%	Paid on an ongoing basis up to age of 65

Source: TAC

The assessment of spinal impairment is conducted in accordance with the *American Medical Association Guides to the Evaluation of Permanent Impairment (4th Edition)* (the Guides). The Guides specify eight categories of impairment severity known as Diagnosis Related Estimate (DRE) categories, which correspond to certain levels of WPI. The eight categories each contain two subsections. The first subsection is entitled '*Description and Verification*' containing different injury descriptors of the impairment within that particular category. The second subsection of each category is entitled '*Structural Inclusions*'. *Structural Inclusions* serve as an alternative impairment criteria based on spinal fractures. If a claimant has an injury that corresponds to a *Structural Inclusion*, the injury is automatically assessed at that

[1] *Transport Accident Act 1986 (Vic)*

impairment category. DRE Category IV, which corresponds to a WPI rating of 20 per cent,[2] contains a *Structural Inclusion* that includes multiple fractures.

The precedent set in the Supreme Court judgment of the *Transport Accident Commission v Serwylo* [2010] VSC 421 (Serwylo) changed the long held interpretation of the *Structural Inclusion (2)* in DRE Category IV and highlighted an issue that has significant impacts for the equity of the scheme.

Previously, multiple fractures in one region of the spine were assessed on whether the fractures had the capacity to disrupt the spinal canal or impair the ability of the spine to provide postural support. However, the Court held that the use of the words "as with fractures" used in the Guides were intended by the authors of the Guides to mean that the presence of multiple fractures in a region of the spine was sufficient to justify DRE Category IV regardless of whether the medical examiners were of the opinion that the fracture actually caused multiple levels of structural compromise.

In this scenario, claimants who have minor spinal fractures that are regarded by medical examiners as being of very little medical significance or physical disability are assessed as significantly impaired. Consequently, these claimants are provided with levels of compensation that are inappropriate when compared with other claimants who are assessed at the same WPI but are more functionally impaired. This also means that claimants who had minor spinal fractures before the accident will be deemed to have a significant pre-existing impairment when the TAC determines their transport accident-related WPI.

This precedent also has implications for the assessment of spinal surgeries and procedures such as fusions. Many examiners now consider that spinal surgery has an effect on bone that is the equivalent to fractures, which justifies DRE Category IV.

Problem

The problem considered in this RIS is the broad and inclusive language used in the Guides' *Structural Inclusion (2)* of DRE Category IV, which has given rise to potential inequities in impairment assessment. In particular, the application of *Structural Inclusion (2)* of DRE Category IV post-Serwylo permits minor spinal fractures that result in little or no structural impairment to rate disproportionally higher than the level of impairment that the injury actual causes. This means a claimant who has multiple spinal fractures (even where microscopic) is now assessed at the same level of compensation as a claimant who is more severely impaired from a non-spinal related injury (such as a serious brain injury). As a consequence, persons with minor spinal fractures such as fractures of the transverse processes have been assessed at higher WPI levels and now qualify for additional compensation payments outlined in Table 1. The resulting cost to the scheme has been estimated at $11.4 million per new accident year, leading to an additional liability of $67.5 million for the TAC.

Options

The TAC has proposed to rectify the consequences of the wording in DRE Category IV through enacting the Guides Modification Document (GMD) which can override the relevant sections of the Guides' methodology for spinal impairment assessments. Due to the complexity of the Guides, the GMD is seen as the only viable alternative to achieve the TAC's objectives.

The document has been developed by an independent Spinal Expert Panel, which has provided a gradated assessment of multiple fractures based on the increasing severity of certain spinal fractures. Under the proposed change, only spinal surgeries and fractures that have the capacity to compromise the spinal structure will be assessed as DRE IV. The GMD also provides a new DRE Category III rating, however no other section of the Guides (outside spinal impairment assessment) will be amended. The document sets out which *Structural*

[2] Or 25 per cent for assessment of the cervical spine.

Inclusions justify a DRE Category IV rating and by implication what *Structural Inclusions* justify DRE I to III and DRE V. The document also provides four gradations of DRE Categories for spinal surgery and procedures including a modifier to the assessment based on whether radiculopathy is present after surgery or not.

The proposed GMD, expected to be released on 1 July 2014, will place approximately 80 per cent of these claimants at a pre-Serwylo level of impairment.[3] According to the TAC, the Expert Panel's approach did not fully restore the pre-Serwylo position as it was an inadequate method of assessing the diverse range of multiple spinal fractures and there was little information about how the consequences of spinal surgery should be assessed.

In addition, the other areas that were considered in the development of the GMD included:

- detailed definitions of what parts of the spine constituted each assessment region (clause 5 of the GMD)
- a new definition of fracture (section 3.4 of the GMD)
- clear direction on the assessment of fractures.

This RIS considers two options in relation to the implementation and timing of the GMD. The implementation options are differentiated by the timing of their application, which has implications for the number of claimants directly affected. Implementation Option 1 would apply the GMD to all persons injured on or after the 1 September 2014 (two months after the expected release date of 1 July 2014). This would mean that claimants who have been injured previously and are currently waiting to be assessed would not be affected by the change.

Implementation Option 2 would apply to claimants who undergo their impairment assessment examinations on or after 1 January 2015. The date of 1 January 2015 was selected on the basis that there is traditionally a six month waiting list for medical assessments with many claimants booked into their impairment assessments in advance.[4] Therefore, Implementation Option 2 provides a buffer for those claimants with minor fractures that are already booked in for their assessment prior to 1 January 2015 to be assessed using the current methodology.

Implementation Option 2 is distinctly different from Implementation Option 1 in that it is partially retrospective, capturing a portion of claimants injured prior to 1 September 2014.

Analysis and conclusion

The key benefit of the implementation options relates to equity, specifically the extent to which a 'pre-Serwylo' situation is restored. There are two aspects to equity:

- Horizontal equity refers to treating people with similar characteristics in similar ways.[5] In this context, it refers to claimants with similar functional impairment receiving similar levels of compensation. This RIS focusses on horizontal equity.
- Vertical equity refers to the notion that persons in different situations should be treated differently according to their level of need. In this case, vertical equity means that people with more severe injuries receive higher compensation.[6]

Under Implementation Option 1, the date of the proposed GMD would be 1 September 2014. This implementation option will directly impact 80 per cent[7] of claimants with multiple

3 This percentage is based on PwC's detailed analysis of TAC data and the TAC's assessment of a significant number of individual cases.

4 All analysis in this RIS is based on the expected release date of the GMD, 1 July 2014.

5 Victorian Competition and Efficiency Commission, *Adjusting the Balance: Inquiry into Aspects of the Wrongs Act 1958*, draft report, Victoria, November 2013, p6.

6 Ibid

7 Based on figures outlined at the beginning of Chapter 5

spinal injuries occurring on or after 1 September 2014 (1,251[8]). This represents 54 per cent[9] of the current and future claimants in the scheme (over the next ten years) with multiple fractures (i.e. the horizontal equity impact).

More broadly however, all persons entering the scheme on or after 1 September 2014 would be placed on a more equitable footing. That is, there is a vertical equity benefit for all other cases over the next ten years (13,187[10]) whereby even though their own compensation level will not change, they will receive a more equitable amount (in a relative sense when compared with multiple fractures claims).

In Implementation Option 2, impacted persons are determined by their assessment examination date rather than their accident date. As it is not possible to be assessed prior to the date of accident, the new GMD will capture every claimant with an accident date of 1 January 2015 and beyond. In addition, we have assumed that no claimant can obtain an assessment within six months of their accident date. Hence, Implementation Option 2 captures the 80 per cent of future claimants outlined in Table 2, which represents the claimants affected under Implementation Option 1 plus the two months of claimants injured between 1 July 2014 and 31 August 2014.

Furthermore, Implementation Option 2 also has a retrospective impact as a proportion of existing claimants[11] with an accident date prior to 1 July 2014 will also be impacted by the GMD. Data provided by the TAC has indicated that the number of claimants in the scheme receiving impairment benefits at any point in time remains relatively constant, hence the current claimant figures outlined in Table 2 below can be used.

Table 2: Number of existing and future claimants (over 10 years)

	Accident date		
Injury type	**Existing claimants in the scheme at 1 July 2014**	**Future accidents from 1 July 2014 (over 10 years)**	**Total**
Multiple spinal fracture cases	725 (31%)	1,590 (69%)	**2,315 (100%)**
All other cases (that receive impairment benefits)	6,115 (31%)	13,410 (69%)	**19,525 (100%)**
Total	**6,840**	**15,000**	**21,840**

Sources: TAC data and PwC analysis as described below.

Implementation Option 2 therefore has a retrospective impact of 516 claimants.[12] and a total horizontal equity impact of 1,788 claimants[13] ,representing 77 per cent[14] of the current and future multiple spinal fracture claimants in the scheme (over the next ten years).

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8 As the calculations in this RIS are as at the expected release date of 1 July 2014, the number of claimants affected is equal to ten years minus two months (1 July 2014 to 31 August 2014) of future claimants. This is calculated by: (1,590 - (159*2/12)) * 80% = 1,251

9 1,251/2,315=54%

10 Calculated as the number of future claimants for all other injuries (excluding multiple spinal fractures) from Table 8, less two months of claimants between 1 July 2014 and 31 August 2014. Calculated as: 13,410 – (1,341*(2/12)) = 13,187.

11 A claimant is assumed to enter the scheme on their accident date and exit the scheme on the date of receiving their final compensation payment (this may be impairment, LOEC or common law settlement). The number of 'existing claimants' therefore refers to all claimants that are within this bracket.

12 Calculated as 80 per cent of the claimants in the scheme as at 1 July 2014 less the six months of claimants who will be assessed between 1 July 2014 and 31 December 2014, equal to (725 – 159/2)*80% = 516

13 1,590 * 80% + 516 = 1,788

There is also a vertical equity benefit for 18,184 claimants. [15]

Both implementation options have one-off implementation costs of $51,320.

However, there are transitional issues associated with the Implementation Option 2:

- The entitlements of existing claimants are affected under Implementation Option 2, unlike Implementation Option 1.
- Similarly, under Implementation Option 2 there is a risk of behaviour changes by claimants, such as attempting to obtain medical assessments prematurely prior to the cut-off date.

Both implementation options change compensation arrangements, and therefore represent a cost saving to the scheme. The largest saving is under Implementation Option 2 ($114.4m), rather than Implementation Option 1 ($68.4 million).[16] In addition, Implementation Option 2 results in a liability saving of $46 million to the scheme.[17] This represents the reduction in the TAC's potential liability to make payments to existing claimants. Under Implementation Option 1, no existing claimants are affected and therefore the TAC retains its full current liability.

From a cost-benefit analysis perspective, this cost saving simply represents a transfer of resources or redistribution between two groups in society.[18] Transfers can only be regarded as enhancing community wellbeing if a decision is made that one group derives more value from the resources than the other.[19] In this case, we do not make this assumption and so the cost-benefit impact of this transfer is taken to be nil. While transfers involving taxation can have a range of distortionary impacts, the CTP levy represents the cost of certain risks associated with driving, essentially internalising what was an externality.[20]

On balance, Implementation Option 2 is selected as the preferred implementation option. This is primarily due to the fact that it generates more significant equity benefits at the same financial cost as Implementation Option 1. It should be acknowledged, however, that there are some transitional issues associated with this implementation option.

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14 1,788/2,315 = 77%

15 19,525 – 1,341 (one year's worth of non-spinal related accidents) = 18,184

16 Annual incremental transfer due to the GMD (refer Appendix C) = $11.4 million * 74.5% = 8.5 million
Using a nominal discount rate of 7.5% and an inflation rate of 3.75% (equalling to a real discount rate of 3.75% used in NPV calculations) NPV for Implementation Option 1 (10 years) – $8.5m*10/12 (to exclude first two months) = $68.4.million.

Implementation Option 2 figure is calculated using the NPV figure calculated in Implementation Option 1 of $68.4 million (transfer away from future claimants) plus the calculated transfer from existing claimants (equal to the liability saving) of $46 million (refer footnote 17)
Total = $68.4m + $46m = $114.4m.

Discount rates: The nominal discount rate used in NPV calculations is derived from the TAC's long term forecasted investment return: This discount rate was applied for consistency with that used in the calculation of the cost per new accident year figure ($11.4 million), which was used as an input.
The inflation rate used in the NPV calculations is a forecasted average weekly earnings growth figure based on historical data. This was considered a more appropriate measure than CPI as compensation based on loss of earnings is indexed with average weekly earnings.

17 The TAC's current liability to existing claimants has been estimated to be $67.5m. In addition, the GMD is estimated to reduce the additional compensation to claimants resulting from the consequences of Serwylo by 74.5 per cent. Therefore, the maximum liability saving from an option that is implemented immediately is $67.5m * 74.5% = $50.3m.
However, Implementation Option 2 does not affect six months' worth of claimants who will still be compensated under the post-Serwylo state, therefore their liability saving will not be recognised. As the per year cost from the consequences of Serwylo is estimated to be $11.4m, the liability figure is $50.3m – 0.5(11.4m * 74.5%) = $46 million.

18 C R Sunstein, 'The Cost-Benefit State: The Future of Regulatory Protection', *Section of Administrative Law and Regulatory Practice,* American Bar Association, USA, 2002, 190.

19 Victorian Competition and Efficiency Commission, *Adjusting the Balance: Inquiry into Aspects of the Wrongs Act 1958*, draft report, Victoria, November 2013, 5.

20 CTP stands for 'Compulsory Third Party' levy, which refers to the TAC charge that all motor vehicle owners pay for transport accident insurance as part of their annual registration.

Table 3 below outlines the results of the costs-benefit analysis conducted over the two implementation options relating to the timing and implementation of the GMD.

Table 3: Results of cost-benefit analysis[21]

	Implementation Option 1: Accident date (1 September 2014)	*Implementation Option 2: Assessment date (1 January 2015)*
Financial benefits		
	$0	$0
Financial costs		
Implementation costs	($51,320)	($51,320)
Net financial benefits	**($51,320)**	**($51,320)**
Transfers		
Redistribution (net effect of zero)[22]	$68.4m	$114.4m
Non-monetary impacts		
Changes to benefits (number of people directly impacted)	1,251	1,788
Transitional issue: entitlements (number of people)	Nil	516

Note: Figures may not sum exactly due to rounding

Source: PwC analysis as outlined in main body

[21] It should be noted that all figures outlined in this section (and in the remainder of the RIS) are estimates only, and are based on assumptions that are uncertain. The underlying data was provided by either the TAC itself or various other sources as indicated in the text. Estimates relating to cost and liability have been produced in consultation with PwC Actuarial, which is the TAC's actuary.

[22] . Implementation Option 2 involves 43% more claims than Implementation Option 1, however the associated cost is 67% higher, mainly reflecting the fact that – unlike Implementation Option 1 – Implementation Option 2 affects existing claimants as well as new accidents and there is a different benefit mix (and therefore cost) outstanding between existing claimants and new accidents. For example, LOEC benefits, which involve a higher average cost, figure more prominently for existing claimants.

Abbreviations

Abbreviation	Description
AMA	American Medical Association
Act	*Transport Accident Act (1986)*
DRE	Diagnosis-Related Estimate
GMD	Guides Modification Document
Guides	American Medical Association Guides to the Evaluation of Permanent Impairment (4th Edition)
LOEC	Loss of earnings capacity
NPV	Net Present Value
PwC	PricewaterhouseCoopers
Serwylo	TAC v Serwylo [2010] VSC 421
RIS	Regulatory Impact Statement
TAC	Transport Accident Commission
WPI	Whole Person Impairment

Contents

1 About this regulatory impact statement

1.1 Introduction

PricewaterhouseCoopers (PwC) has been engaged by the Transport Accident Commission (TAC) to prepare this Regulatory Impact Statement (RIS) to assess the proposed amendments to the *American Medical Association Guides to the Evaluation of Permanent Impairment 4th Edition* (the Guides). PwC has relied on the TAC to advise on the practical implications of the technical components of the proposed Guides Modification Document referred to in this RIS.

This RIS is based on the requirements of the *Victorian Guide to Regulation (Edition 2.1, August 2011)*.[23]

1.2 Purpose of this regulatory impact statement

The purpose of this RIS is to:

- establish the problem that government is seeking to address and the extent of that problem
- identify a set of options for government to address the identified problem
- assess the costs and benefits of these options, and the effectiveness of each option in addressing the problem before establishing a preferred option for government action
- develop an implementation and review strategy for the preferred option.

1.3 Public consultation

The TAC is now seeking written submissions on this RIS. The RIS is subject to a consultation period with the closing date for submissions being 30 July 2014. Feedback is sought on the proposed methodology in the GMD and the preferred commencement date for the GMD. To the extent possible, all submissions will be made available on the TAC website – tac.vic.gov.au. All personal information other than your name and suburb will be removed before publishing. If any information contained in your submission should be treated as confidential, please clearly identify this on the submission cover sheet. Submissions received by post will be available in PDF on the website. The TAC does not intend to formally reply to each submission.

Responses to the Consultation RIS can be provided as follows

By email (preferred)

GMD@tac.vic.gov.au

[23] Department of Treasury and Finance Victoria, *Victorian Guide to Regulation (Edition 2.1)*, Department of Treasury and Finance, Melbourne, August 2011.

In writing

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The closing date for submissions is **30 July 2014**

1.4 Structure of this report

This RIS is structured as follows:

- Chapter 2 describes the nature of the problem and measures the extent of that problem
- Chapter 3 outlines the objective of government action
- Chapter 4 considers the options available to government to address the problem in light of the Government's objectives
- Chapter 5 assesses the costs and benefits of each option
- Chapter 6 discusses the preferred option as well as its impact on small business, provides a competition assessment, discusses any implementation and enforcement issues and outlines an evaluation strategy
- Appendix A provides the proposed Guides Modification Document
- Appendix B provides the Expert Panel's Terms of Reference
- Appendix C provides detailed calculations underpinning the analysis
- Appendix D sets out the Expert Panel considerations for the Guides Modification Document.

2 Nature and extent of the problem

The following chapter provides some background on the TAC and the rationale for government intervention into providing compensation to people injured in transport accidents. It also describes the nature and extent of the problem being addressed in this RIS.

2.1 Background

2.1.1 Transport Accident Commission (TAC)

The TAC is a statutory agency created under the *Transport Accident Act 1986* (the Act). The TAC administers a comprehensive no-fault and common law damages compensation scheme for people who are injured or die as a result of a transport accident involving a Victorian registered motor vehicle.

The TAC aims to provide a compensation scheme that is not only affordable to the Victorian community but also provides "suitable and just compensation" for people injured in transport accidents. [24] One of the key factors in determining suitable and just compensation is the severity of an individual's impairment.

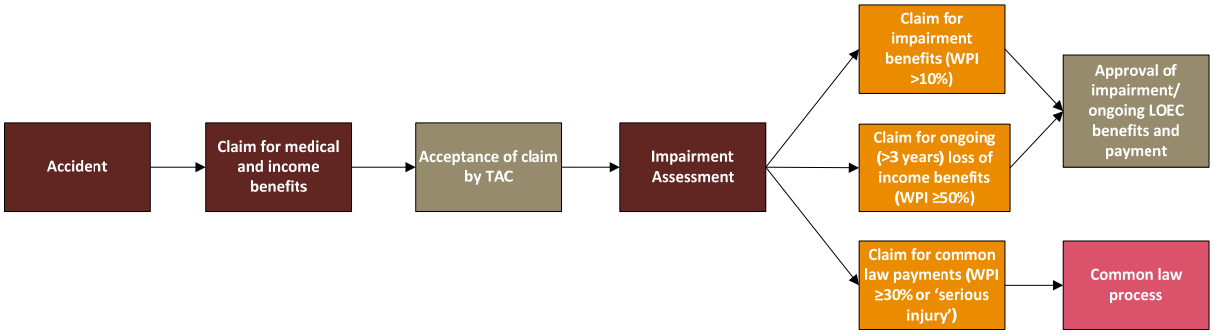
2.1.2 The compensation process

The process from accident to potential compensation can be complex, but is set out in a simplified flow chart (Figure 1) to assist readers to understand the main steps. However, in practice:

- these steps can be undertaken in a different order
- there can be many loops where processes are repeated
- there can be significant delays in progressing from one step to the next
- some claimants will not progress through all of the steps, but rather finish the process at an intermediate step.

[24] Section 8 of the Act.

Figure 1: Transport accident compensation process



Source: TAC and PwC

The key stages in the process for a person who has been in a transport accident to claim compensation from the scheme are:

Accident

The accident date is defined as the date on which the transport accident causing the claimant's injuries occurred.

Claim and acceptance of claim for medical and income benefits

The first step for an injured person entering the scheme is to make a claim for compensation with the TAC. The claim is then processed and, if the person was injured in a transport accident, the claim is accepted. Once the claim has been accepted, the claimant can start receiving compensation for medical costs, and if unable to return to work, income benefits (for up to 3 years).

Claim for additional compensation

Following acceptance of the TAC claim, the injured party may also apply for additional compensation depending on the severity of their injury. The three categories of additional compensation that can be claimed are detailed below:

- Impairment benefits are aimed at compensating an injured person who has been permanently physically or psychologically impaired as a result of a transport accident. An impairment benefit is paid irrespective of fault for the transport accident. Claimants must be assessed by the TAC as having a Whole Person Impairment (WPI) of greater than 10 per cent in order to qualify for impairment benefits. Impairment benefits are paid in a single lump sum amount and incrementally increase based on the claimant's WPI.
- Common law damages are awarded by the Court when an injured person can establish negligence against another party. Damages in a transport accident claim are awarded as a lump sum payment for the pain, loss of enjoyment of life and loss of income caused by the transport accident-related injuries. A person injured in a transport accident can only recover damages if they have sustained an injury that satisfies the criteria of a 'serious injury' in the Act. 'Serious injury' is automatically deemed when a claimant's impairment is determined as a WPI of at least 30 per cent. If a claimant does not have a WPI of at least 30 per cent, they may have a 'serious injury' under the narrative criteria in section 93 of the Act.
- In most cases, income benefits comprising loss of earnings benefits and loss of earning capacity benefits are paid by the TAC for up to three years. However, when a claimant is severely impaired and has a partial or no capacity to work, they may be entitled to ongoing benefits beyond three years from the accident date. Ongoing benefits are payable to claimants with a WPI of 50 per cent or more and are paid on a continuous basis as assessed.

Table 4 sets out eligibility for additional compensation entitlements based on different levels of impairment.

Table 4: Compensation eligibility

	Whole Person Impairment Level (WPI)			
	≤ 10%	11% – 29%	30% – 49%	≥ 50%
Medical expenses/Loss of earnings capacity benefits (≤3 years)	✔	✔	✔	✔
Impairment benefits		✔	✔	✔
Common law damages*	✔ **	✔ **	✔	✔
Ongoing loss of earnings capacity benefits (>3 years)				✔

* Claimant is only eligible if they can establish negligence by another party.
** Claimant with a WPI<30 per cent may be eligible for common law damages if they satisfy the serious injury narrative criteria in the Act.

Sources: TAC and PwC

Impairment assessment

In order to claim any of the additional compensation entitlements listed above, claimants are required to obtain an assessment of their WPI caused by the transport accident. The Act requires an injured person's impairment to be assessed in accordance with the Guides. The Guides provide a methodology where impairment scores from different organs or body systems are combined together to get an overall score of Whole Person Impairment between zero per cent and 100 per cent. The WPI score is used to represent the degree of physical and psychological impairment directly caused by the transport accident, with zero per cent representing a person with minimal or no impairment and 100 per cent representing a person with catastrophic injuries.

The TAC assesses and determines the level of WPI based on impairment reports from accredited medical examiners. Examiners are required to successfully complete a Ministerially approved training course in the use of the Guides to be 'accredited' to perform an impairment assessment. The impairment assessment must be conducted after the claimant's injuries have stabilised. Claimants may have to undergo multiple impairment assessments when there are multiple injuries due to the different medical specialties required to assess the injuries.

Approval and payment of additional compensation

Impairment benefits and ongoing LOEC benefits are paid by the TAC based on the claimant's WPI score. Payment is made on or soon after the date of the impairment determination. Impairment benefits involve a statutory scale of payments, meaning that the higher the WPI score, the higher the compensation levels. To qualify for ongoing LOEC benefits, the WPI must be 50 per cent or greater. Common law damages, on the other hand, are usually negotiated but can proceed through the Court system.

2.1.3 *Spinal assessment*

The Act requires that impairment assessments must be in accordance with the Guides. Section 3.3 of the Guides specifies the approach to be taken by the medical impairment examiners when assessing an impairment of the spine.

The Guides' preferred approach for assessing spinal impairment is the Diagnosis Related Estimate (DRE) Model, under which there are eight possible categories, ranked by the indicative level of WPI. These categories range from DRE 1 (zero per cent WPI) to DRE VIII (75 per cent WPI).The eight categories each contain two subsections. The first subsection is entitled '*Description and Verification*' that specifies medical signs of a spinal injury that must be present to justify a rating under that particular DRE category. The second subset of each category is entitled '*Structural Inclusions*'. *Structural Inclusions* serve as an alternative impairment criteria based on spinal fractures. If a claimant has an injury which corresponds to a *Structural Inclusion,* the injury is automatically assessed at that impairment category. For example, if a spinal injury has the characteristics of a DRE Category II (5 per cent WPI), but due to the presence of fractures, satisfies the criteria of *Structural Inclusion (2)* of DRE IV, it would automatically fall into DRE Category IV and be deemed to have a WPI of 20 per cent.

2.1.4 *Impact of TAC v Serwylo 2010*

It is not uncommon for claimants to sustain one or more fractures in their spine in a transport accident due to the torsional forces involved in the crash. These fractures vary in severity and can affect different parts of the vertebrae in the spine (for example, the body of the vertebra may be crushed to varying degrees, or there might be a fracture of the transverse process of a vertebra).

Prior to the Supreme Court judgment of *Transport Accident Commission v Serwylo [2010] VSC 421* (Serwylo*)*, the impairment assessment of multiple fractures was dependent on the clinical assessment of medical examiners as to whether or not multiple fractures represented multiple levels of structural compromise. Fractures that had the capacity to disrupt the spinal canal or impair the ability of the spine to provide postural support were rated as DRE Category IV.

In Serwylo, the claimant sustained an injury to the lower part of the back, but no spinal fractures were detected on x-ray studies performed at the time of initial treatment. Fractures of three lumbar vertebrae were later detected on a CT scan.

All the impairment examiners agreed there was no basis for the spinal injury to fall in the DRE Category IV *Description or Verification* criteria for a loss of motion segment or structural integrity.

One impairment examiner assessed that, although there were minor multiple fractures in the lumbar spine, those fractures did not represent multiple levels of 'structural compromise' and assessed the spinal impairment as a DRE Category II.

Other examiners assessed the minor multiple fractures on the basis that the presence of the multiple fractures was sufficient to justify S*tructural Inclusion (2)* of DRE Category IV which states:

> '*Multilevel spine segment compromise, as with fractures or dislocations, without residual neurologic motor compromise*'

The TAC's impairment determination was the subject of a merits review at the Victorian Civil and Administrative Tribunal (VCAT). VCAT held that the plain and ordinary meaning of the words 'as with' in *Structural Inclusion (2)* meant that the presence of multiple fractures (regardless of severity) automatically satisfies the requirements of DRE Category IV.

On appeal, the Supreme Court upheld the Tribunal's interpretation.

As a consequence, the presence of multiple fractures in a region of the spine is now deemed sufficient to automatically justify an impairment assessment of DRE Category IV (representing 20 per cent WPI), regardless of any consideration as to whether the particular types of fractures are actually causing multi-level compromise to the spine. In other words,

Structural Inclusion (2) of DRE Category IV provides a gateway for a claimant who sustains spinal fractures (of even the most minor kind) that may not be indicative of physical impairment, to be classified as significantly impaired for compensation purposes.

For example, there are several fracture types that, prior to Serwylo, were rarely considered by examiners to cause 'structural compromise', such as microtrabecular fractures (microscopic fractures detected only by MRI), or fractures of the transverse and spinous process of a vertebra.

After Serwylo, even these most minor fracture types now justify a DRE Category IV.

It has also been the TAC's experience that the routine use of MRI and CT scans in clinical treatment is detecting many minor fractures. These were not previously detectable on plain x-ray studies. The presence of minor fractures may not have been fully considered by the authors of the Guides as MRI and CT scans were not routine when the Guides were written.

2.1.5 *Spinal surgery*

There are various types of spinal surgeries performed to treat spinal injuries. They can range from discectomy and laminectomy to more significant procedures such as spinal fusions.

A spinal fusion involves the joining of two bones (vertebrae) in the spine so that there is no movement between them.[25]

Many spinal surgeries involve procedures that have some effect on the bony parts of the spine, and may include cutting or drilling bone, or insertion of stabilising screws or plates.

Many examiners now express the view in their impairment reports that spinal surgery does something to bone that is the equivalent to a fracture. The examiners then conclude that spinal surgery is the equivalent of multiple fractures under *Structural Inclusion (2)* of DRE Category IV, which justifies a higher WPI score.

Some examiners are also of the opinion that a fusion of two or more motion segments represents multiple levels of motion segment compromise and that a rating of DRE Category IV should be given.

Primarily, the higher assessments claimed for spinal surgery will affect the level of impairment benefits payable and the entitlement to receive ongoing LOEC benefits. The TAC has advised that it will usually grant a serious injury certificate to a claimant who has had a spinal fusion, meaning the claimant will be able to access common law damages without having to satisfy the 30 per cent WPI criteria or rely on *Structural Inclusion (2)* of DRE Category IV. [26]

2.2 The problem considered in this RIS

The problem considered in this RIS is the broad and inclusive language used in *Structural Inclusion (2)* of DRE Category IV of the Guides.

The Act requires that the Guides are to be used to provide consistency and certainty in the assessment of impairment following a transport accident. The Guides are intended to be an objective and equitable way of determining an injured person's level of compensation.

However the application of *Structural Inclusion (2)* of DRE Category IV post-Serwylo directly conflicts with this rationale, as it permits minor spinal fractures that result in little or no structural impairment to rate disproportionally higher than the level of impairment that the injury actually causes. As explained above, the use of the words "*as with*" in the Guides has created a situation where any type of fracture necessarily equates to multilevel spine

[25] National Institute of Health, MedilinePlus, 'Spinal Fusions', http://www.nlm.nih.gov/medlineplus/ency/article/002968.htm, accessed April 2014.

[26] Section 93(4)(c) of the Act.

segment structural compromise. *Structural Inclusion (2)* was previously regarded by examiners to imply that fractures and dislocations are potential causes of multilevel structural compromise, as opposed to precursors.[27]

Following Serwylo, all claimants with multiple spinal fractures irrespective of the severity of the fractures are placed on equivalent compensation levels. Some spinal fractures are microscopic and result in little or no structural consequences to the spine. Therefore, claimants displaying the same number of spinal fractures may be at highly varying levels of impairment. The application of what is effectively a 'form over substance' criteria for assessing spinal fractures does not appear to have a medical basis and is inequitable.

More broadly, a claimant who has multiple spinal fractures (even where microscopic) is now assessed at the same level of compensation as a claimant who is more severely impaired from a non-spinal related injury (such as a serious brain injury).

These inequities can be summarised using the hypothetical examples outlined in Table 5.

Table 5: Example of post Serwylo impairment assessments by injury type

Characteristics of injured person	Actual level of impairment[28]	WPI (as assessed post-Serwylo)
Non-significant non-spinal injury	5%	5%
Significant non-spinal injury	20%	20%
Multiple spinal fractures without multilevel structural compromise	5%	**20%**
Multiple spinal fractures with multilevel structural compromise	20%	20%

Source: PwC and TAC

The scheme permits claimants with WPIs meeting the thresholds outlined in section 2.1.2 to obtain additional compensation entitlements. The wording in DRE Category IV has therefore directly resulted in additional claimants now being categorised in higher DRE categories and in some cases receiving access to common law damages and other additional compensation entitlements.

On the other hand, the broad wording in DRE Category IV also has the potential to reduce some claimants' entitlement to impairment benefits. For example, an injured claimant who has pre-existing spinal injuries or degenerative changes in their spine may be classed as DRE IV pre-accident due to the presence of old fractures. They may not be entitled to an impairment benefit for a further spinal injury caused by the transport accident unless the injury now places the claimant into a higher DRE category (in which case they will be entitled to only the percentage difference between the two categories). However, on balance, the impact of the post-Serwylo application of DRE Category IV is still an increase in claimant compensation.

Aside from the inequities that the language of DRE Category IV has created, there is also a resulting financial cost to the scheme. PwC has performed a costing analysis based on 2013 data that valued the annual impact of the DRE Category IV assessments on the scheme. The analysis consisted of estimating the impact on the three primary compensation types within the scheme:

[27] It should also be noted that DRE Category IV is the only descriptor in the Guides that actually mentions multiple fractures. There are no other clearly written descriptors that provide alternative assessment categories for multiple fractures of varying severity.

[28] 'Actual level of impairment' as determined by medical practitioners based exclusively on structural compromise (the pre-Serwylo case).

- impairment lump sum
- common law payments
- ongoing LOEC.

Specifically, the analysis looked at claims within the DRE II and DRE III categories that would have had a higher WPI rating if assessed post-Serwylo. The analysis concluded that the total impact of DRE Category IV to the scheme was an additional cost of $11.4 million per accident year, and an additional liability of $67.5 million.

The breakdown of these cost estimates is provided in Table 6. A full explanation of the assumptions used and calculation of these figures is provided in Appendix C.

Table 6: Estimated change in costs and liability impact following Serwylo

Type of compensation	Estimated cost per new accident year	Estimated change to liability
Impairment Lump Sum Benefits	$4.3m	$15.5m
Loss of Earnings Capacity Benefits	$3.2m	$31.3m
Common Law Damages	$3.9m	$20.7m
TOTAL	**$11.4m**	**$67.5m**

Source: PwC.

The figures in Table 6 represent a transfer of funds from the scheme (and ultimately those who register motor vehicles) to claimants with multiple fracture spinal injuries without structural impairment.

3 Objectives

The *Subordinate Legislation Act 1994* requires a RIS to include a statement of the proposed regulations' objectives. [29] These objectives should be closely related to the objectives of the Act authorising the proposed legislative instrument and should be consistent with, or contribute to, the achievement of the government's strategic policy aims. [30]

Some proposed measures may have several objectives and where this is the case, the statement must identify a primary objective. The objectives should be stated in terms of the ends to be achieved rather than the means of their achievement. In other words, they must be specified in relation to the underlying problems that have been identified in Chapter 2.[31]

Section 11 of the Act states the objectives of the TAC as follows:

- to manage the transport accident compensation scheme as effectively and efficiently as possible
- to ensure that appropriate compensation is delivered in the most socially and economically appropriate manner and as expeditiously as possible
- to ensure that the transport accident scheme emphasises accident prevention and effective rehabilitation
- to develop such internal management structures and procedures as will enable it to perform its functions and exercise its powers effectively, efficiently and economically.[32]

The proposed measure outlined in this RIS seeks to achieve a more equitable distribution of compensation across claimants, which ultimately contributes to the objective of delivering a 'socially and economically appropriate' scheme.

As a secondary objective, the proposed Guides Modification Document also seeks to improve the efficiency of the transport accident compensation scheme.

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[29] In particular, sections 10(1)a and 12H(1)a of the *Subordinate Legislation Act 1994*.

[30] Department of Treasury and Finance Victoria, *Victorian Guide to Regulation (Edition 2.1)*, Department of Treasury and Finance, Melbourne, August 2011.

[31] Department of Treasury and Finance Victoria, *Victorian Guide to Regulation (Edition 2.1)*, Department of Treasury and Finance, Melbourne, August 2011, 72

[32] *Transport Accident Act 1986 (Vic)*, section 11.

4 Options

This chapter sets out the options considered in this RIS to address the problems identified in Chapter 2.

4.1 Option 1: GMD

The TAC considers the most equitable long-term situation to be one where the assessment of multiple fractures is based on the degree to which the fractures cause structural compromise to the spine, rather than just the presence of any kinds of multiple fractures.

As a first step to correcting the deficiencies in the wording of *Structural Inclusion (2)* in DRE Category IV, the *Transport Accident Amendment Act 2013* was passed by the Victorian Parliament on 14 November 2013. As per Section 46A(2C) of the Act:

(2C) The Commission may, with the approval of the Minister, make a Guides Modification Document containing guidelines regarding the use and application of the A.M.A. Guides for the purposes of this Act including but not limited to guidelines that:

(a) amend the A.M.A. Guides;

(b) provide for the application or interpretation of the A.M.A. Guides, including provision for modified application, or exclusion, of part or all of the A.M.A. Guides, or;

(c) substitute or replace part or all of the A.M.A. Guides.

(2D) A Guides Modification Document made under subsection (2C) must be published in the Government Gazette as soon as practicable after it is approved by the Minister.

The viable option considered in this RIS relates to the introduction of a Guides Modification Document (GMD) that would modify the conditions that justify an impairment being rated as a *Structural Inclusion (2)* of DRE Category IV. The GMD has been developed by an independent Spinal Expert Panel and seeks to address the wording issues in DRE Category IV without amending any other Chapters of the Guides. Figure 2 below outlines the areas in which the proposed GMD will override the current Guides.

Figure 2: Development of the GMD

The significant decisions made by the Spinal Expert Panel in the drafting of the GMD are categorised below:

The proposed GMD introduced a definition of fracture (see 3.4 of the GMD) as no definition was previously contained in the Guides. This will provide clarity for examiners and consistency in assessments. The definition excludes minor pathology such as bone bruising or microtrabecular fractures that can only be seen or implied on MRI or nuclear scanning.

The GMD has replaced the single gradation of structural fractures with four gradations of increasing severity and a new DRE Category III. The Expert Panel has developed a new table of structural inclusions - Table A (see pages 17-19 of the GMD) which takes into account conditions affecting single and multiple fractures of the vertebrae and surgical or other procedures. This provides the assessor with a range of ratings from DRE I-IV so the appropriate category can be chosen for the injury on the basis that the more severe the injury the higher the DRE Category and degree of WPI.

The Expert Panel has provided detailed definitions about what parts of the spine constitute each assessment region of the spine (see Clause 5 of the GMD) including pathology on the borders. The Expert Panel has made the rules in the GMD quite explicit so that spinal assessments will be easier to undertake and be more consistent (see Terms of Reference Clause 2 and 9).

The Expert Panel also confirmed that that assessment of fractures is best undertaken by using x-rays and or CT scans. This provides direction to assessors that MRI scans or flexion / extension x-rays are not required to conduct an assessment. However there should be clear evidence of a fracture objectively confirmed. This will also assist in making assessments easier to undertake and more efficient as there is no need to obtain additional scans solely for the purpose of an impairment assessment.

The new method provides a gradated approach to assessment of multiple fractures and spinal surgeries so only fractures that have the capacity to compromise the spinal structure will be assessed as DRE IV. The proposed GMD will place approximately 80 per cent of these claimants at a pre-Serwylo level of impairment.[33] According to the TAC, the Expert Panel's approach did not fully restore the pre-Serwylo position as it was an inadequate method of assessing the diverse range of multiple spinal fractures (due to the limited assessment options in the current Guides, discussed in Figure 2) and there was little information about how the consequences of spinal surgery should be assessed (such as fusions). The Expert Panel has proposed a fairer approach of assessing fractures in accordance with Table A in the GMD which provides for a gradated assessment based on the severity of the fracture. The Expert Panel has replaced the single gradation with four gradations of increasing severity including a new DRE Category III rating.

After the introduction of the GMD, if minor spinal fractures are the only injury sustained in the transport accident the person will not exceed the 10% WPI threshold for an impairment benefit.[34]

The TAC has determined that the enactment of the GMD is the only viable option to rectify the problem since:

- The TAC has no viable alternative to the proposed GMD under its current legislative framework, and indeed the *Transport Accident Amendment Act 2013* was enacted with this modification in mind.
- As the problem is in relation to the wording of the Guides, non-regulatory approaches, such as retraining assessors, would not be appropriate in this instance to rectify the words of DRE Category IV. Legislative amendment is the necessary option for the TAC to override the text of the Guides and the *Transport Accident Amendment Act 2013* provides the only viable avenue for this.
- Due to the complexity of the AMA Guides, which contains 11 Chapters of detailed assessments of body systems it was not a viable option to change the way other types of injuries were assessed to restore relative equity. This would require extensive consultation with a wide range of medical experts to consider the re-evaluation of all the assessment tables and charts in the Guides that were not currently causing any substantial concerns. As the problem identified related to a very discrete issue that was confined to one chapter of the Guides it more appropriate to refer the modification of the DRE methodology to an independent Expert Panel of orthopaedic examiners for review and amendment.
- The Expert Panel reviewed other compensation schemes' approaches but opted to create their own methodology for assessing spinal fractures. The Expert panel by consensus has developed the preferred method of assessment in the GMD with input from accredited Guides assessors following consultation.

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33 This percentage is based on PwC Actuarial's detailed analysis of TAC data and the TAC's assessment of a significant number of individual cases. Further detail is provided in Chapter 5.

34 Claimants may still be entitled to recover common law damages if their injury was a 'serious injury' pursuant to section 93 of the Act.

4.1.1 *Consultation*

Summary of the process and approach taken by the Spinal Expert Panel

When the TAC engaged the independent Spinal Expert Panel to develop the GMD, the Terms of Reference required the Expert Panel to consult with other medical practitioners who were accredited Guides assessors. [35]

On 12 March 2014, the Expert Panel held a consultation session for all impairment examiners who were accredited in the Spine module of the Ministerially-approved training course in the use of the Guides. The impairment examiners were provided with a draft version of the GMD and asked to test its proposed methodology using various common impairment assessment scenarios. Feedback received from the impairment examiners confirmed the validity of approaches taken by the Expert Panel and highlighted some parts of the methodology that required further work.

Feedback provided by stakeholders at the Expert Panel's consultation session included:

- Positive feedback that the inclusion of 'definitions' within the GMD was of assistance to examiners. Feedback included a request for a clearer definition of the term 'per-cutaneous spinal procedure'. Consequently, a definition of 'per-cutaneous spinal procedure' was added to the GMD.
- Positive feedback regarding the potential addition of a table of structural inclusions and consideration of surgical procedures within that table. Some feedback highlighted a possible variation of surgical procedure that had not been accounted for in the draft of the table at that time. Consequently, the table was amended to take account of that specific variant of surgical procedure.
- Feedback that the table of structural inclusions did not properly take account of the level of impairment that should be associated with multiple non-displaced fractures of some posterior elements of the spinal vertebrae. Consequently, the table of structural inclusions was amended to include certain multiple fracture patterns that should justify a DRE III Category assessment.

The TAC is also proposing to conduct an information session about the GMD with its legal stakeholders. The legal stakeholders not only represent TAC clients but will also use the GMD to advise their clients. At the information session, the legal practitioners will be taken through the document and will be given the opportunity to provide feedback on the proposed methodology and timing options.

4.2 Viable implementation options

As the TAC has no viable alternative to the GMD, the options analysed in detail in the remaining parts of this chapter relate to differences in potential timing and suitable implementation thresholds (i.e. which specific points in the process of making a claim) for the GMD. It is important to note that the expected release date of the GMD is 1 July 2014, therefore both implementation options are considered using this as the reference date.

4.2.1 *Implementation Option 1: Accident date (1 September 2014)*

The first implementation option is for the GMD to apply to impairment assessments for all claimants injured in transport accidents that occurred on or after 1 September 2014.

Under this implementation option, all claimants with an accident date on or after 1 September 2014 would be subject to the new method of assessment as per the GMD.

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[35] See Appendix B.

Conversely, claimants injured prior to 1 September 2014 would continue to have their impairment assessed using the criteria under the current *Structural Inclusion (2)* of DRE Category IV. Implementation Option 1 is prospective, and will not alter the potential entitlement of any existing claimants.[36]

4.2.2 *Implementation Option 2: Assessment Date (1 January 2015)*

Under Implementation Option 2, the GMD would be applied to claimants who attend an impairment examination on or after a date that is six months after the expected GMD release date of 1 July 2014 (that is, it would apply from 1 January 2015).

The Act requires that a claimant's permanent WPI be assessed once their injury has stabilised. Injuries sustained in a transport accident can take several years to stabilise, although most stabilise within 12-18 months.[37] In addition, there is traditionally a six month waiting list to obtain assessments from medical examiners.[38] For this reason, many impairment examinations are booked in as soon as possible and then rescheduled if the claimant's injury is not stable at the time of appointment. This does, however, mean that some appointments may become available, and could be utilised by other claimants who have a stable injury to reduce the time between accident and assessment if the injury has stabilised. However, this is relatively uncommon.

Implementation Option 2 is therefore likely to impact claimants whose accident occurs after 1 January 2015 and those with an accident date between 1 July 2014 and 31 December 2014 whose injury is unlikely to have stabilised. In addition, Implementation Option 2 is partially retrospective, in that it applies the GMD to a portion of claimants whose accident occurs prior to the expected GMD release date of 1 July 2014.

The TAC has selected the application date of 1 January 2015, based on the assumption that there is on average approximately a six month wait before a claimant can obtain an appointment with an accredited impairment examiner. The intention is to provide a buffer to claimants injured prior to the implementation date who already have their impairment examinations booked in, without allowing too many new claims after 1 July 2014 to be assessed in accordance with the current DRE Category IV. However, due to the length of time taken for injuries to stabilise, this also means that some existing claimants (injured prior to 1 July 2014) would also be impacted.

4.3 Implementation options not considered in further detail

It is expected that an injured person will make a claim shortly after their injury date in order to begin the process of receiving compensation. 'Date of claim acceptance' could be an appropriate date to introduce the GMD as it is effectively the date that an injured person enters the scheme. However in practice, using the claim date may place pressure on injured persons and their families to submit their claims quickly in order to take advantage of the higher compensation prior to the threshold. Furthermore, the claim date is not traditionally used by the TAC as an implementation threshold.

As the accident date and the claim acceptance date are likely to be very close together, and the accident date does not place undue pressure on potentially vulnerable members of the community, we have determined the accident date to be a more appropriate measure.

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[36] A claimant is assumed to enter the scheme on their accident date and exit the scheme on the date of receiving their final compensation payment (this may be impairment, LOEC or common law settlement). The term 'existing claimants' refers to all claimants that are within this bracket.

[37] Information provided by the TAC.

[38] Informed by the TAC.

The lodgement dates of applications for additional compensation (impairment, common law or ongoing LOEC) could also theoretically be used as enforcement thresholds, however similar issues apply whereby it potentially puts pressure on claimants to rush through applications. Additionally, there is the potential that it could result in perverse behavioural changes, as it creates potential incentives to speed up or slow down the process. This option is therefore not considered to be as practical to implement as the accident or assessment date.

The use of the compensation determination date also creates potential incentives to speed up or slow down the process in a similar manner to that outlined above and is not considered further.

An accident date of 1 January 2015 is not considered as it is the TAC's intention to fix the identified inequity in the scheme as early as possible. An accident date of 1 January would mean that new accidents occurring up until that time would still be assessed under the post-Serwylo methodology.

An accident date of 1 July 2014 (the expected release date of the GMD) is also not considered as it does not allow adequate time for implementation, in particular training of medical practitioners and communication to potentially affected parties.

5 Cost benefit analysis

This chapter considers the costs and benefits likely to arise from the viable options. In order to do so, the base case needs to be defined for comparison purposes (i.e. what are the potential costs and benefits compared to the situation where the proposed approach is not adopted). In the case of proposals for amended legislative instruments, the base case is the situation that would play out should no changes to the regulations be made; in other words, the current legislative framework and interpretations of the Guides.

In the case of this RIS, the current legislative framework incorporates *Structural Inclusion (2)* of DRE Category IV of the Guides post-Serwylo, and the *Transport Accident Amendment Act 2013*.

It should be noted that all figures outlined in this section (and in the remainder of the RIS) are estimates only, and are based on assumptions that are uncertain. The underlying data was provided by either the TAC itself or various other sources as indicated in the text. Estimates relating to cost and liability have been provided in consultation with PwC Actuarial, which is the TAC's actuary.

5.1 Option 1: GMD

As discussed in Chapter 4, the proposed option to be considered in this analysis is therefore the implementation of the GMD. Under the GMD, claimants with multiple spinal fractures would be assessed on logical gradations of DRE Categories depending on the significance of the fracture types. In other words, the blanket rule on multiple spinal fractures that currently exists would be removed and replaced with a more equitable method of assessment.

It has been estimated that the new method would result in 80 per cent of cases being assessed in the DRE Categories they would have been in before the Serwylo judgment.[39] This is due to the prevalence of cases that involve only minor fractures. The remaining 20 per cent include some of the more complex cases that involve spinal surgery or injuries with neurological signs that would now be rated under DRE Category III or IV. This is illustrated by the examples in Table 7.

Table 7: Example of impact of GMD on different injury types

Characteristics of injured person	DRE category (as assessed pre-Serwylo)	WPI (as assessed post-Serwylo)	WPI (as assessed post-GMD)
A: Multiple minor spinal fractures	DRE II	DRE IV	DRE II
B: Multiple spinal fractures without structural compromise involving neurological signs	DRE II	DRE IV	DRE III
C: Multiple spinal fractures with structural compromise	DRE IV	DRE IV	DRE IV

Source: PwC

39 This percentage is based on PwC's detailed analysis of TAC data and the TAC's assessment of a significant number of individual cases.

Table 8 below summarises an estimation of the breakdown of current and future (over 10 years) claimants in the scheme that receive impairment benefits, as at the expected GMD release date of 1 July 2014.

Table 8: Number of existing and future claimants (over 10 years)

	Accident date		
Injury type	Existing claimants in the scheme at 1 July 2014	Future accidents from 1 July 2014 (over 10 years)	Total
Multiple spinal fracture cases	725 (31%)	1,590 (69%)	**2,315 (100%)**
All other cases (that receive impairment benefits)	6,115 (31%)	13,410 (69%)	**19,525 (100%)**
Total	**6,840**	**15,000**	**21,840**

Sources: TAC data and PwC analysis as described below.

Table 8 shows that there are 725 existing claimants,[40] with multiple spinal fracture injuries in the scheme out of around 6,840 total claimants that are currently in the scheme.[41]

It is assumed that there will be on average 159 multiple spinal fracture cases per year totalling 1,590 over a ten year period (these figures are set out in Appendix C).[42] This compares with 1,500 total cases per year (that receive impairment benefits)[43] or 15,000 over the ten year period.[44]

Following the full implementation of the GMD, 80 per cent of multiple spinal fracture claimants (127 claimants) each year will be restored to a pre-Serwylo state, while the remaining 20 per cent will be compensated under the GMD modified cases discussed above.

From a cost perspective, the estimated saving to the scheme resulting from the implementation of the GMD is estimated to be $8.5 million per year, as shown in

Table 9. This represents 74.5 per cent of the cost post-Serwylo impact. This is lower than the 80 per cent of claimants affected as it takes into account changes in common law and LOEC payments, which are a subset of impairment claims and expected to be less sensitive to the GMD changes. Further detail in the calculation of these figures is provided in Appendix C.

[40] A claimant is assumed to enter the scheme on their accident date and exit the scheme on the date of receiving their final compensation payment (this may be impairment, LOEC or common law settlement). The number of 'existing claimants' therefore refers to all claimants that are within this bracket.
Data provided by TAC has shown that there is an estimated 6,840 existing claimants in the scheme as at 1 July 2014.

[41] Source: TAC. Additionally, the average time taken for a claimant to pass through the scheme has also remained relatively stable over time. Therefore, we can assume that the number of people within the scheme at any given time is approximately 6,840.

[42] It should be noted that this figure represents the maximum number of claimants that can be affected by the GMD. The figure may be lower as the number of existing claimants may include a small number that have already conducted their impairment assessment and are only waiting for their payment. As the time between impairment assessment and payment is generally quite low, we assume that the number of claimants in this category is minimal.

[43] PwC analysis of TAC data over time.

[44] We assume that this figure will continue to remain static for the duration of the calculation period of ten years.

Table 9: Scheme cost impact following GMD implementation

Type of compensation	Post-Serwylo impact per new accident year	Estimated impact of GMD (%)	Estimated impact of GMD ($)	Residual post-Serwylo impact
Impairment Lump Sum Benefits	$4.3m	-80%	-$3.4m	$0.9m
Loss of Earnings Capacity Benefits	$3.2m	-78%	-$2.5m	$0.7m
Common Law Damages	$3.9m	-65%	-$2.6m	$1.3m
TOTAL	**$11.4m**	**-74.5%**	**-$8.5m**	**$2.9m**

Note: Figures may not sum exactly due to rounding

Source: PwC analysis of TAC data

If implemented immediately and applied to all applicable existing and future claimants, the GMD also has the potential to reverse 74.5 per cent of the TAC's current liability in respect of the estimated impact of the consequences of Serwylo. This translates to a liability saving of $50.3 million, leaving a residual liability of $17.2 million. This is shown in Table 10, and the full calculation of these figures is shown in Appendix C.

Table 10: Liability impact following GMD implementation

Type of compensation	Post-Serwylo impact	Estimated impact of GMD (%)	Estimated impact of GMD ($)	Residual post-Serwylo impact
Impairment Lump Sum Benefits	$15.5m	-80%	-$12.4m	$3.1m
Loss of Earnings Capacity Benefits	$31.3m	-78%	-$24.4m	$6.9m
Common Law Damages	$20.7m	-65%	-$13.5m	$7.2m
TOTAL	**$67.5m**	**-74.5%**	**-$50.3m**	**$17.2m**

Note: Figures may not sum exactly due to rounding

Source: PwC analysis of detailed TAC data.

5.2 Method for assessing implementation options

The two options relating to the timing and implementation threshold of the GMD have been assessed using a cost-benefit analysis. Where impacts occur over time, the value of costs and benefits is 'discounted' to ensure they are assessed in constant dollar terms as a net present value (NPV). In this instance however, not all of the costs and benefits have been able to be quantified in dollar terms, for example, the impacts on equity. These are provided at the end of the below analysis in a table based on the number of people impacted.

5.3 Implementation Option 1: Accident date (1 September 2014)

5.3.1 *Equity benefits*

The key benefit of the implementation options relates to equity, specifically the extent to which a pre-Serwylo situation is restored. There are two aspects to equity:

- Horizontal equity refers to treating people with similar characteristics in similar ways.[45] In this context, it refers to claimants with similar functional impairment receiving similar levels of compensation. This RIS focusses on horizontal equity.
- Vertical equity refers to the notion that persons in different situations should be treated differently according to their level of need. In this case, vertical equity means that people with more severe injuries receive higher compensation.[46]

Under Implementation Option 1, the GMD would apply from 1 September 2014. This implementation option would directly impact 80 per cent[47] of claimants with multiple spinal injuries occurring on or after 1 September 2014. (1,251[48]). This represents 54 per cent[49] of the current and future claimants in the scheme (over the next ten years) with multiple fractures (i.e. the horizontal equity impact). Refer to Table 8 for further information on these estimates.

More broadly however, all persons entering the scheme on or after 1 September 2014 would be placed on a more equitable footing. That is, there is a vertical equity benefit for all other cases over the next ten years (13,187[50]) whereby even though their own compensation level will not change, they will receive a more equitable amount (in a relative sense when compared with multiple fractures claims).

As previously mentioned, a group to consider in regard to equity is claimants that have undertaken spinal surgery such as fusions. Spinal fusion patients are effectively captured in the equity analysis above as it involves all injured persons receiving impairment benefits in the scheme.

Implementation costs

The implementation costs of this option predominately relate to the cost of communication to relevant medical, as well as potentially to legal professionals. The cost is primarily comprised of the medical professional time taken to deliver the relevant training courses to the impairment examiners. Data provided by the TAC has valued this cost at $50,820[51] to be borne in 2014 only. There will also be minor IT costs for the professional service required to set up an Impairment Assessment Training Website. This cost will also be one-off and borne

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45 Victorian Competition and Efficiency Commission, *Adjusting the Balance: Inquiry into Aspects of the Wrongs Act 1958*, draft report, Victoria, November 2013, p6.

46 Ibid

47 Based on figures outlined at the beginning of Chapter 5

48 As the calculations in this RIS are as at the expected release date of 1 July 2014, the number of claimants affected is equal to ten years' minus two months' (1 July 2014 to 31 August 2014) worth of future claimants. This is calculated by: (1,590 - (159*2/12)) * 80% = 1,251

49 1,251/2,315=54%

50 Calculated as the number of future claimants for all other injuries (excluding multiple spinal fractures) from Table 8, less two months of claimants between 1 July 2014 and 31 August 2014Calculated as: 13,410 – (1,341*(2/12)) = 13,187.

51 The cost represents the value of the time of medical practitioners who are undertaking the training, Estimated on the basis of up to 132 hours at $350 p/hour plus GST in professional fees that may be required to be paid for development and facilitation of up to six training sessions for doctors who wish to be trained in the use of the GMD.
132 hours @ $350 p/hour plus 10% GST =$50,820

in 2014. The TAC estimates this to be approximately $500. No material implementation costs are likely to be outlaid after this.

Total implementation costs are therefore calculated to be $51,320.

5.3.2 *Other impacts*

The implementation of the GMD will have the effect of reducing the WPI ratings for claimants with multiple spinal fractures without structural compromise. This is likely to increase the amount of total time spent legally determining whether an injured person has a 'serious injury' (as fewer claimants will automatically reach the 30 per cent impairment threshold), but less total time would be spent determining legally claimants' WPI (due to operational efficiencies in the new method) and the amount of common law damages (as fewer injured people may receive common law damages). Analysis undertaken by the TAC has identified that these two impacts are largely offsetting, and thus the resulting impact under Implementation Option 1 is estimated to be nil.

In addition, feedback from the TAC suggests that the GMD is likely to generate additional efficiency improvements due to increased clarity in the impairment assessment process. This benefit has not been quantified but is acknowledged.

5.3.3 *Distributional impacts*

Any reduction in compensation to claimants would reduce cost pressure on the scheme. From a cost-benefit analysis perspective, this impact simply represents a transfer of resources or redistribution between two groups in society.[52] Transfers can only be regarded as enhancing community wellbeing if a decision is made that one group derives more value from the resources than the other.[53] In this case, we do not make this assumption and so the cost-benefit impact of this transfer is therefore nil. While transfers involving taxation can have a range of distortionary impacts, the CTP levy represents the cost of certain risks associated with driving, essentially internalising what was an externality.[54]

Under this implementation option, the total transfer is $68.4 million NPV over ten years.[55] Refer to Appendix C for a detailed explanation on the relationship between number of claimants affected and the value of the transfer.

The impact to the scheme's current liability will be nil under this implementation option. This is due to the implementation option being prospective only and therefore not impacting the compensation entitlements of existing claimants.

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52 C R Sunstein, 'The Cost-Benefit State: The Future of Regulatory Protection', *Section of Administrative Law and Regulatory Practice*, American Bar Association, USA, 2002, p190.

53 Victorian Competition and Efficiency Commission, *Adjusting the Balance: Inquiry into Aspects of the Wrongs Act 1958*, draft report, Victoria, November 2013, p5.

54 CTP stands for 'Compulsory Third Party' levy, which refers to the TAC charge that all motor vehicle owners pay for transport accident insurance as part of their annual registration.

55 Annual incremental transfer due to the GMD (refer Appendix C) = $11.4 million * 74.5% = 8.5 million
Using a nominal discount rate of 7.5% and an inflation rate of 3.75% (equalling to a real discount rate of 3.75% used in NPV calculations) NPV (10 years) – $8.5m*10/12 (to exclude first two months) = $68.4.million.

Nominal discount rate is derived from the TAC's long term forecasted investment return: This discount rate was applied for consistency with the calculation of the cost per new accident year figure ($11.4 million) that was used as an input.
The inflation rate is a forecasted average weekly earnings growth figure based on historical data. This was considered a more appropriate measure than CPI as compensation based on loss of earnings is indexed with average weekly earnings.

5.4 Implementation Option 2: Assessment date (1 January 2015)

5.4.1 Equity benefits

In Implementation Option 2, impacted persons are determined by their assessment examination date rather than their accident date. As it is not possible to be assessed prior to the date of accident, the new GMD will capture every claimant with an accident date of 1 January 2015 and beyond. In addition, for the reasons discussed in section 4.2.2, we have assumed that no claimant can obtain an assessment within six months of their accident date. Hence, Implementation Option 2 captures the 80 per cent of future claimants outlined in Table 11., which represents the claimants affected under Implementation Option 1 plus the two months of claimants injured between 1 July 2014 and 31 August 2014.

Furthermore, Implementation Option 2 also has a retrospective impact as a proportion of claimants with an accident date prior to 1 July 2014 will also be impacted by the GMD. Data provided by the TAC has indicated that the number of claimants in the scheme at any point in time remains relatively constant, hence the current claimant figures outlined in Table 11 below are able to be used.

Table 11: Number of existing and future claimants (over 10 years)

	Accident date		
Injury type	Existing claimants in the scheme at 1 July 2014	Future accidents from 1 July 2014 (over 10 years)	Total
Multiple spinal fracture cases	725 (31%)	1,590 (69%)	**2,315 (100%)**
All other cases	6,115 (31%)	13,410 (69%)	**19,525 (100%)**
Total	**6,840**	**15,000**	**21,840**

Sources: TAC data and PwC analysis as described below.

This implementation option will hence impact 80 per cent[56] of the claimants in the scheme as at 1 July 2014 less the six months' worth of claimants who will be assessed between 1 July 2014 and 31 December 2014. This totals to a retrospective impact of 516 claimants.[57] The total claimants directly impacted is therefore 1,788[58] (horizontal equity impact), representing 77 per cent[59] of the current and future multiple spinal fracture claimants in the scheme (over the next ten years).

More broadly however, all claimants with other cases would be placed on a more equitable footing. That is, there is an indirect vertical equity benefit for all other cases (18,184[60]) whereby even though their own compensation amount will not change, they will receive a more equitable outcome (in a relative sense when compared to post-Serwylo cases).

56 Based on figures outlined at the beginning of Chapter 5

57 (725 – 159/2)*80% = 516

58 1,590 * 80% + 516 = 1,788

59 1,788/2,315 = 77%

60 19,525 – 1,341 (one year's worth of non-spinal related accidents) = 18,184

5.4.2 *Implementation costs*

The implementation costs for Implementation Option 2 will be identical to that of Implementation Option 1, as they are one-off fixed costs ($51,320). As training would occur at a similar time as in Implementation Option 1, no discounting has been applied to this figure.

5.4.3 *Transitional issues*

Change in entitlements of existing claimants

Applying policies retrospectively can alter existing and potential entitlements. Under this implementation option, a proportion of claimants (with multiple spinal fractures without structural compromise) whose accident occurred prior to the expected release date of 1 July 2014 may be disadvantaged, in that their potential compensation entitlements may have changed as a result of the GMD. Specifically, these claimants had a potential entitlement to higher compensation prior to the change and they may have planned around the expectation that they would receive that higher compensation.[61] There would be 516 existing claimants whose entitlements would change under Implementation Option 2.[62]

Change in behaviour

The retrospective application of policies may also alter the behaviour of individuals to speed up or slow down cases if sufficient incentive is created. As Implementation Option 2 involves a future assessment date, it may create incentives to seek means of obtaining their impairment assessments earlier than scheduled if they are likely to be rated at a higher WPI score using the current method of assessment. For example, a claimant with microtrabecular fractures who has an impairment assessment booked in January 2015 may attempt to bring forward the assessment to December 2014. If claimants are not able to book in their assessments prior to 1 January 2015 due to long waiting lists, this could result in inequities between two persons whose injuries stabilise at the same time but receive assessments at either side of the threshold.

For the purpose of this analysis, we have assumed that only claimants within three months (up to 31 March 2015) of their assessment date would have stabilised enough to be able to move their assessment forward. Given the annual number of claims affected by the GMD is 127, this suggests that approximately 32 people could be affected.[63]

5.4.4 *Other impacts*

Other impacts will be identical to those outlined in Implementation Option 1, and do not explicitly factor into our quantitative analysis. Refer to section 5.3.2 for further detail.

5.4.5 *Distributional impacts*

Implementation Option 2 has a retrospective impact in that it affects a proportion of existing claimants. This will result in a liability saving to the TAC, representing future income transferred away from existing claimants (with multiple spinal fractures). The value of this

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[61] Strictly speaking, existing claimants do not have an entitlement or right to receive a certain level of compensation prior to their assessment, however grievances may stem from the reduction in the potential level of compensation that a claimant can receive given a set of injury characteristics.

[62] If the assessment date specified was 1 July 2014, 580 (725*80%) claimants would have their rights and entitlements altered. However, as the assessment date is 1 January 2015, we effectively remove six months' worth of multiple spinal fracture claimants who will still be assessed under the post-Serwylo case and therefore not have their rights and entitlements altered. As the annual number of multiple spinal fracture assessments impacted by the GMD is assumed to be 127 (159*80%), we estimate the number of related assessments in six months to be approximately 64. Therefore, the number of persons whose entitlements change under Implementation Option 2 is 516 (580 – 64 = 516)

[63] 127*(3/12) = 32

reduction is estimated to be approximately $46 million,[64] leaving a remaining liability of $21.5 million.[65] The $46 million represents the potential compensation as at 1 July 2014 that the TAC no longer has to fund. Refer Appendix C for a description of liability.

The value of the transfer under Implementation Option 2 is therefore larger than under Implementation Option 1 as the same number of future claimants *and* a proportion of existing claimants are being affected. The transfer under Implementation Option 2 is estimated as $114.4 million.[66] Refer to Appendix C for a detailed explanation on the relationship between number of claimants affected and the value of the transfer.

64 $67.5m* 74.5% - 0.5(11.4m* 74.5%) = $46m. This represents the 74.5% of the existing liability (as at 1 July 2014) that is reversed by the GMD, less the six months' worth of payments (for the claimants who undergo assessments between 1 July 2014 and 31 December 2014) from the liability that will be paid on the post-Serwylo basis.
Refer to Appendix C for further detail.

65 67.5m (Total liability denoted in Appendix C) – 46m = $21.5m.

66 Figure is calculated using an NPV figure calculated in Implementation Option 1 of $68.4 million (transfer away from future claimants) plus the calculated transfer from existing claimants (equal to the liability saving) of $46 million.
Total = $68.4m + $46m = $114.4m.

6 Preferred option

6.1 Summary of preferred option

From the discussion in Chapter 4, it has been shown that the TAC has no viable alternative to Option 1, which is the enactment of the GMD.

This RIS has explored two options for implementing the GMD. The benefits of the implementation options relate to the extent to which they restore claimants to the pre-Serwylo state. Under Implementation Option 1, only future claimants (1,251 claimants over a ten year period) will be restored to the pre-Serwylo state, while under Implementation Option 2, a proportion of existing claimants as well as an additional two months of future claimants (injured between 1 July 2014 and 31 August 2014) will also be affected (totalling 1,788 claimants over a ten year period), which means higher benefits under Implementation Option 2.

Both options have one-off implementation costs of $51,320.

However, there are transitional issues associated with Implementation Option 2:

- The entitlements of existing claimants are affected under Implementation Option 2, unlike Implementation Option 1.
- Similarly, under Implementation Option 2 there is a risk of behaviour changes by claimants, such as attempting to obtain medical assessments prematurely prior to the cut-off date.

Both implementation options change compensation arrangements, and therefore represent a cost saving to the scheme. The largest saving is under Implementation Option 2 ($114.4million), rather than Implementation Option 1 ($68.4 million).[67]

From a cost-benefit analysis perspective, this cost saving simply represents a transfer of resources or redistribution between two groups in society.[68] Transfers can only be regarded as enhancing community wellbeing if a decision is made that one group derives more value from the resources than the other.[69] In this case, we do not make this assumption and so the cost-benefit impact of this transfer is therefore nil.

On balance, Implementation Option 2 is selected as the preferred implementation option. This is primarily due to the fact that it generates more significant equity benefits at the same financial cost as Implementation Option 1. It should be acknowledged, however, that there are some transitional issues associated with this implementation option.

6.2 Impact on small businesses

An assessment of the small business impacts must consider matters such as:

- variation in the compliance burden
- whether any compliance flexibility option has been considered that will assist small businesses to meet the requirements of the proposed measure

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[67] Refer to Appendix C for an explanation of the relationship between number of claimants affected and the value of the transfer under both implementation options.

[68] C R Sunstein, 'The Cost-Benefit State: The Future of Regulatory Protection', *Section of Administrative Law and Regulatory Practice*, American Bar Association, USA, 2002, p190.

[69] Victorian Competition and Efficiency Commission, *Adjusting the Balance: Inquiry into Aspects of the Wrongs Act 1958*, draft report, Victoria, November 2013, p5.

- the likely extent of compliance by small versus large business
- the distribution of benefits arising from the proposed measure
- the relative impacts of penalties and fines for non-compliance.

In saving a future outlay of compensation for the TAC, the preferred option will ultimately reduce pressure on charges paid by motor vehicle users. As this also affects businesses, small businesses will experience some benefit from the saving. However, as the size of the costs saving is only around 1 per cent of the total cost of the scheme, the effect on premiums and hence small business is likely to be relatively low.

6.3 Competition assessment

Considerations of national competition policy include identifying any restrictions to competition in the preferred option, showing that the restriction is necessary to achieve the objective, and assessing whether the benefits of the restriction outweigh the costs in each particular case.

Any new legislation in Victoria must not restrict competition unless it can be demonstrated that:

- the benefits of the restriction, as a whole, outweigh the costs
- the objectives of the legislation can only be achieved by restricting competition.

A legislative amendment is considered to have an impact on competition if any of the following questions in Table 12 can be answered in the affirmative. Table 12 shows the rationale and significance of those areas where there is an impact on competition.

Table 12: Criteria for determining adverse competition impacts

Question	Answer	Significance
Is the proposed measure likely to affect the market structure of the affected sector(s) – i.e. will it reduce the number of participants in the market, or increase the size of incumbent firms?	No	N/A
Would it be more difficult for new firms or individuals to enter the industry after the imposition of the proposed measure?	No	N/A
Would the costs/benefits associated with the proposed measure affect some firms or individuals substantially more than others (e.g. small firms, part–time participants in occupations, etc.)?	No	No expected impact on competition
Would the proposed measure restrict the ability of businesses to choose the price, quality, range or location of their products?	No	N/A
Would the proposed measure lead to higher ongoing costs for new entrants that existing firms do not have to meet?	No	N/A
Is the ability or incentive to innovate or develop new products or services likely to be affected by the proposed measure?	No	N/A

Source: Department of Treasury and Finance Victoria, *Victorian Guide to Regulation (Edition 2.1)*, Department of Treasury and Finance, Melbourne, August 2011, pp88-91.

The preceding chapters and analysis have generally demonstrated that the proposed measures represent a net benefit, and that the government's objectives can only be achieved by reducing the benefit payout of a small cohort of persons with multiple spinal fractures, on the premise that they are already receiving economic profits.

6.4 Enforcement

In this case, the proposed GMD will not be enforced per se, as they will simply replace the relevant sections in the Guides and then be applied by the TAC and the courts in future impairment assessments.

6.5 Evaluation strategy

This section will outline a strategy to evaluate the regulations in the future. It is an important step in best practice regulation to review the regulations regularly to ensure that they remain the most appropriate means of addressing the specified objectives. An evaluation strategy is therefore needed to monitor the effectiveness of the preferred regulatory option.[70]

As the *Victorian Guide to Regulation(Edition 2.1, August 2011)* states the following key issues should be considered when reviewing the legislative amendment: [71]

- Is there still a problem that requires government intervention? Have there been any relevant changes or developments since the regulation was implemented?
- Are the objectives of the regulation being met?
- Are the impacts of the regulation as expected? Are there any effects or problems that were not anticipated?
- Is the regulation currently in place still the most appropriate form of action? Does experience with the measure suggest ways that it can be improved to meet the objectives? Is a different regulatory approach now warranted?

Under the proposed option, the TAC will monitor the resulting impact from the proposed GMD and identify any unintended consequences. As the scope of this modification is quite narrow and the intention is predominantly to restore the Guides to a pre-Serwylo position, a detailed evaluation strategy will not be undertaken by the TAC. The strategy would be primarily concerned with ensuring no additional flaws come out of the wording of the new GMD that could give rise to further inequities.

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[70] Department of Treasury and Finance Victoria, *Victorian Guide to Regulation (Edition 2.1)*, Department of Treasury and Finance, Melbourne, August 2011, p93

[71] Department of Treasury and Finance Victoria, *Victorian Guide to Regulation (Edition 2.1)*, Department of Treasury and Finance, Melbourne, August 2011, p94.

Appendices

Appendix A Guides modification document

Guidelines modifying some aspects of the methods of assessing spinal impairment prescribed in 4th Edition of the AMA Guides to the Evaluation of Permanent Impairment

1. Background

1.1 These *Guidelines* are a Guides Modification Document made by the Transport Accident Commission pursuant to Section 46A(2C) of the *Transport Accident Act* 1986 with the approval of the Minister responsible for the administration of that Act.

1.2 They were developed by a panel of specialists comprising:

- Mr Gary Speck (chair) (Orthopaedic surgeon)
- Mr David Brownbill (Neurosurgeon)
- Mr Robert Dickens (Orthopaedic surgeon)
- Associate Professor Stephen Hall (Rheumatologist)
- Associate Professor Richard Stark (Neurologist)
- Mr Peter Wilde (Orthopaedic surgeon).

2. Introduction

2.1 Subject to the modification effected by these *Guidelines*, pages 94 to 111 of the *Guides* set out the approach, procedures and directions relevant to the assessment of spinal impairment.

2.2 The text of these *Guidelines* and the *Guides* must be read carefully. It is not appropriate to simply refer to Tables which may (and often do) only provide limited information and an incomplete summary of relevant matters.

2.3 Spinal impairment is assessed in spinal assessment regions.

2.4 In assessing spinal impairment using the DRE methodology, two types of descriptors are used:

(a) Descriptors under the heading "**description and verification**".

(b) Descriptors under the heading "**structural inclusions**".

2.5 These *Guidelines* modify the method of assessing spinal impairment by reference to "***structural inclusions***", including modification by substituting new descriptors of "***structural inclusions***". They also simplify and amend some other aspects of the instructions for the assessment of spinal impairment.

2.6 Different impairment category assessments (based on either or both types of descriptors) may be present in the same assessment region. Generally, it is not permissible to combine multiple DRE category assessments within a single

assessment region. The only exception is that combining certain DRE category assessments is permitted within the cervicothoracic and thoracolumbar assessment regions where there are long tract signs, as described in the text of the spine section of the *Guides* and in the revised Tables R-73 and R-74 in these *Guidelines*.

3. Definitions

3.1 In these *Guidelines*:

3.2 *Act* means the *Transport Accident Act* 1986;

3.3 ***discectomy*** means a partial or total removal of an intervertebral disc;[1]

3.4 ***fracture*** means cortical breach of bone, and does not include minor pathology such as bone bruising or microtrabecular fracture (or like conditions) that are seen or implied only on MRI or nuclear scanning;

3.5 *Guides* means the Guides to the Evaluation of Permanent Impairment published by the American Medical Association – 4th Edition (reprint 3, or later);

3.6 *Guidelines* means these Guidelines, and includes Tables R-70, R-72, R-73 and R74 and Table A;

3.7 ***laminectomy*** and ***laminotomy*** are references to spinal decompression surgery involving the lamina – the terms are often used interchangeably – ***laminectomy*** being the complete removal of the lamina or adjacent laminae, and ***laminotomy*** being the partial removal of the lamina or adjacent laminae;[2]

3.8 ***minor spinal procedure*** means a procedure performed by way of injection, vertebroplasty performed by needle, a per cutaneous spinal procedure (other than per cutaneous ***discectomy***, ***laminectomy*** or ***laminotomy***), implantation of a spinal stimulator and/or drug delivery system and similar minor spinal procedures;

3.9 ***posterior or like element*** means:

(a) a posterior part of a vertebra, which part forms part of the bony protective ring around the spinal canal, including a pedicle, a lamina, a pars interarticularis, a superior articular process and facet and an inferior articular process and facet, but does not include a transverse process or spinous process[3] or a transverse foramen;[4]

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[1] ***Discectomy*** is often used in conjunction with ***laminotomy*** and ***laminectomy***. See footnote 2.

[2] ***Laminectomy*** may be associated with a ***discectomy*** to decompress the spinal nerves or spinal cord and this should be considered as part of the ***laminectomy*** for the purpose of these ***Guidelines***.

[3] These structures do not form part of the bony protective ring around the spinal canal and are not ***posterior or like elements*** for the purpose of Table A in these ***Guidelines***.

(b) the occipital condyle;

(c) the dens , lateral mass or other atypical bony structures of C1 and C2 which form the bony protective ring around the spinal canal, but does not include a transverse process or spinous process[5] or a transverse foramen;[6]

3.10 ***structural inclusions*** means the ***structural inclusions*** and surgical and other procedures referred to in Table A, and the term ***structural inclusion*** refers to any such inclusion.

4. Precedence of the Guidelines

4.1 In assessing spinal impairment:

(a) the ***Act*** has precedence over these ***Guidelines*** and over the ***Guides;***

(b) these ***Guidelines*** have precedence over the ***Guides***.

4.2 If there is any inconsistency between the text in these ***Guidelines*** and an example which seeks to illustrate what is said in that text, the text prevails.

4.3 If there is any inconsistency between the text in the ***Guides*** and an example which seeks to illustrate what is said in that text, the text prevails. [7]

5. Spinal Assessment Regions

5.1 For the purposes of assessment of spinal impairment, there are three spinal assessment regions:

(a) the cervicothoracic (or cervical) region, which comprises the occipital condyle and the C1 to C7 vertebrae inclusive and includes motion segments C0-C1 to C7-T1 inclusively;

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[4] Extension of a ***fracture*** into the transverse foramen does not in itself justify any DRE category. If there is associated damage to the vertebral artery then other chapters of the ***Guides*** should be used to assess any impairment which may be a consequence of such damage.

[5] Footnote 3 applies.

[6] Footnote 4 applies.

[7] This order of precedence is consistent with what is said in the decision of the case of *H J Heinz Company Australia Ltd & Anor v Kotzman & Ors* [2009] VSC 311 at paragraph [28].

(b) the thoracolumbar (or thoracic) region, which comprises the T1 to T12 vertebrae inclusive and includes motion segments T1-T2 to T11-T12 inclusively;

(c) the lumbosacral (or lumbar) region, which comprises the L1 to L5 vertebrae inclusive and includes motion segments T12-L1 to L5-S1 inclusively.

5.2 The sacrum (as opposed to the L5-S1 motion segment) is not to be regarded as a vertebra, nor is it to be regarded as a part of a spinal region. Impairment (if any) of the sacrum is to be assessed as part of the impairment of the pelvis. However the L5-S1 motion segment (for the purposes of assessment of impairment by reference to impairment of a motion segment) is deemed to form part of the lumbosacral (or lumbar) region.

6. Rules for the evaluation of spinal impairment

6.1 Assessment by regions

6.1.1 Assessment of impairment is to be undertaken on a regional basis, noting that there are three possible assessment regions of the spine as set out in paragraph 5.1, above.

6.1.2 As is set out at page 100 of the *Guides*:

> *"Adverse conditions are possible for each spine segment or region, and appropriate DREs are given for all the regions."*

6.1.3 An impairment (if any) should be assessed for each region and the impairments so assessed should then be combined using the combined values formula A+B (1-A) as set out in the *Guides* at page 322[8] to express the person's total spine impairment.

6.2 Structural Inclusions

6.2.1 The descriptions of ***structural inclusions*** that appear in the *Guides* are deleted and replaced by the descriptions of ***structural inclusions*** as set out in these *Guidelines*, including in Table A.

6.2.2 In these *Guidelines*, the term ***structural inclusions*** is defined to include certain conditions affecting one or more vertebra or one or more motion segments and certain surgical and other procedures, in each case as set out in these *Guidelines*, including Table A.

[8] The formula is to be applied as explained in the decision of the case of *TAC v Weigert* [2010] VSC 20.

6.2.3 The rationale of assessment of impairment by reference to a structural inclusion is as set out at page 99 of the *Guides*:

> *"Certain spine fracture patterns may lead to significant impairment and yet not demonstrate any of the findings involving the differentiators".*

6.2.4 *Structural inclusions* constitute persisting impairments of the spine. They may arise from various causes. They are relevant to the assessment of current impairment and to the assessment of pre-existing or otherwise unrelated impairment.

6.2.5 Within a spinal assessment region an impairment assessed by reference to a *structural inclusion*:

(a) cannot be combined with another impairment assessed by reference to a *structural inclusion*;

(b) sometimes can be combined with an impairment assessed by reference to long tract signs (as set out the *Guides* and in the footnotes to Tables R-73 and R-74 in these *Guidelines*).

6.3 Fractures

6.3.1 As set out in Table A, certain *fractures* are assessable as structural inclusions under these *Guidelines*.

6.3.2 Impairment is assessed for the *structural inclusion* of a *fracture* upon the basis that the *fracture* has occurred. The impairment assessment may be based on historic or current evidence of the *fracture*.[9]

6.3.3 Subject to the above, as is set out at page 99 of the *Guides*:

> *"If the patient demonstrates the structural inclusions of two categories, the physician should place the patient in the category with the higher impairment percent."*

6.3.4 Multiple *fractures* affecting a single vertebra are to be assessed on the basis of the highest scoring *structural inclusion*. The presence of multiple *fractures* in a single vertebra does not justify any DRE category assessment from Table A under the heading: "conditions affecting multiple vertebrae".

[9] The assessment of an impairment based on historic evidence of a ***fracture*** arises because the fact of ***fracture*** necessarily carries with it an ongoing impairment. This is so whether or not the ***fracture*** remains discernable on x-ray or other investigation at the time of the assessment. The reader should pay careful attention to the definition of "***fracture***" occurring in these ***Guidelines***. A ***fracture*** is a cortical breach of bone discernable at any point in time (but does not include minor pathology such as bone bruising or microtrabecular ***fracture*** (or like conditions) that are seen or implied only on MRI or nuclear scanning.

6.3.5 Multiple *fractures* (i.e. *fractures* of multiple vertebrae) do not need to be of contiguous vertebrae to justify a DRE category assessment within a spinal assessment region (but the vertebrae do need to be contiguous to engage consideration of the rules for dealing with junction pathology in these *Guidelines*).

6.3.6 An impairment can only be awarded if the relevant descriptor is strictly satisfied.[10]

> ***Example**: A person has a **fracture** of the anterior part of T4 with 5% compression of the vertebral body, along with a **fracture** of the anterior part of T6 with 30% compression of the vertebral body. The 5% crush (assessed individually) assesses as DRE category I (Table A column 1 DRE I). The 30% crush (assessed individually) assesses as DRE category III (Table A column 1 DRE III). A DRE category III assessment only is justified based on **structural inclusions** in the thoracolumbar assessment region. Despite there being two **fractures**, the descriptors of DRE category IV in column 2 of Table A are not satisfied.*

6.3.7 It may be the case that there are multiple *fractures* of the articular processes or articular facets of the vertebrae comprising a single motion segment. Such *fractures* (which only involve the articular processes or facets of a single motion segment) do not justify a DRE IV category assessment from column 2 of Table A. In such cases these types of *fractures* within a single motion segment are assessed on the highest DRE category assessment justified by considering each individual *fracture* of the involved articular processes or facet joints.

> ***Example**: A person has a **fracture** dislocation of C4 on C5 with associated displaced **fractures** of the right superior articular process of C5 and the left inferior articular process of C4. In considering what DRE category assessment is justified from Table A, DRE category IV from column 2 is not justified because of the rule above. The highest DRE category assessment based on any individual **fracture** within the motion segment in this case is DRE category III.*

6.4 Particular Fractures

6.4.1 A *fracture* of C7 is assessed as an impairment in the cervicothoracic region.

6.4.2 A *fracture* of T1 is assessed as an impairment in the thoracolumbar region.

6.4.3 A *fracture* of T12 is assessed as an impairment in the thoracolumbar region.

6.4.4 A *fracture* of L1 is assessed as an impairment in the lumbosacral region.

[10] Note: This is true of all assessments of spinal impairment, not just impairment assessed by reference to Table A.

6.5 Spinal surgery and other procedures

6.5.1 Neither the fact that surgery or another procedure has been performed nor the outcome of such surgery or procedure is to be considered as a type of *fracture*. Subject to what is set out below, no impairment rating is to be given only by reason of the fact that a person has had a surgical or other procedure or that the person exhibits a sign or symptom of having had such surgery or procedure.

6.5.2 However, as specifically set out in these *Guidelines*, when certain surgical or other procedures (identified in Table A) are undertaken this represents an impairing factor in itself. Table A describes impairments arising from certain surgical and other procedures. Impairment following such surgical or other procedures should be assessed when the condition is stable.

6.5.3 A ***discectomy*** and/or ***laminectomy*** and/or ***laminotomy*** is to be regarded as at a single level (Table A column 3 DRE III) if performed within the same motion segment.

> ***Example:*** *A person has symptoms and signs of radiculopathy associated with the nerve root between L3 and L4. This condition is treated surgically with micro-**discectomy**, **laminotomy** of L3 and **laminectomy** of L4. Despite multiple surgical procedures having been performed, each is at the level of the L3-L4 motion segment. As such, when considering possible assessment from column 3 of Table A, only a '*single level ***discectomy*** and/or ***laminectomy*** and /or ***laminotomy'*** has been performed.

> ***Example:*** *A person has symptoms and signs of multilevel radiculopathy associated with nerve roots arising between L2-L3 and L4-L5. This condition is treated surgically with micro-**discectomy** of the discs between L2-L3 and L4-L5. As such, when considering DRE category assessment from column 3 of Table A, it is the case that '*multilevel ***discectomy*** and/or ***laminectomy*** and/or ***laminotomy'*** *has been performed.*

6.5.4 If a single or multilevel fusion, stabilisation or disc replacement is performed, the DRE category assessment by reference to a ***structural inclusion*** may only be assessed in accordance with column 3 of Table A, "Structural impairment assessed by reference to a surgical or other procedure".

> ***Example:*** *A person has a **fracture** dislocation of C6-C7 with displaced **fractures** of the lamina and inferior articular processes of C6, along with displaced **fractures** of the superior articular processes of C7. A single level fusion is performed with **discectomy**, placement of bone graft and fusion between C6-C7. There are no signs of radiculopathy (as defined for Table A) at the time of assessment. As a fusion has been performed at the C6-C7 motion segment the assessment is based on the DRE category assessment from column 3 of Table A. In this case DRE III is justified on the basis of a single level fusion without radiculopathy (as defined for Table A).*

6.5.5 If only ***discectomy***, ***laminectomy***, ***laminotomy*** or ***minor spinal procedure*** is performed, the DRE category assessment based on a ***structural inclusion*** may be assessed under Table A Column 1, 2, or 3, and the highest DRE category assessment justified is given.

> ***Example:*** *A person has a crush* ***fracture*** *of the superior end plate of L4 with 20% loss of vertebral height. There is also a bulge of the disc between L3 and L4 which is treated with* ***discectomy***. *At the time of assessment the person has no signs of radiculopathy (as defined for Table A) in the lumbar spine. The assessment is based on the highest DRE category assessment justified by columns 1, 2 or 3 of Table A. From column 1, a DRE category II is justified based the degree of crush of L4. From column 3, a DRE category II is justified on the basis of single level* ***discectomy*** *without radiculopathy (as defined for Table A). As such, DRE category II only is justified based on* ***structural inclusions****.*

6.5.6 Other than as set out above, the fact a person may have a condition that satisfies the criteria of an impairment assessed by reference to a ***structural inclusion*** does not preclude a higher DRE category assessment being given if the requirements of that higher DRE category are satisfied.

6.5.7 It may be the case that surgical stabilisation of the spine is undertaken but the implanted instrumentation is later to be removed, or has been removed, or intended fusion fails to occur. If implanted instrumentation is to be removed, it may be that the person's condition has not yet stabilised. If implanted instrumentation has been removed, or an intended fusion fails to fuse the affected motion segment, the assessment should be based on the person's current condition. In particular, if a motion segment has been fused, the assessment is by reference to column 3 of Table A. If the motion segment is not fused, the assessment may be by reference to column 1 or 2 and the higher of those DRE category assessments is given.

> ***Example:*** *A person has a* ***fracture*** *of T8 (which would justify DRE category III if assessed from column 1 of Table A) which is treated with surgical stabilisation from T7 to T9. The stabilising instrumentation is later removed and the T7-T8 and T8-9 motion segments are found to have not fused. As such, the DRE category assessment is based on the single* ***fracture*** *justifying DRE III, and not the surgical procedure (as the motion segments were not fused).*

> ***Example:*** *A person has burst* ***fracture*** *of L3 which is treated with surgical stabilisation and fusion from L2 to L4. The stabilising instrumentation is later removed, but the L2-L3 and L3-L4 motion segments remain fused. As such, the impairment is based on a two level fusion as assessed from column 3 of Table A (as the motion segments have fused).*

6.5.8 It is strongly recommended that operation reports be made available to the impairment assessor so that the precise nature of any surgical procedure to the spine can be understood and current impairment be appropriately assessed.

8

6.6 Particular spinal surgeries

6.6.1 A single level fusion of the C7-T1 motion segment is to be assessed as an impairment from the cervicothoracic region.

6.6.2 A single level fusion of the T1-T2 motion segment is to be assessed as an impairment from the thoracolumbar region.

6.6.3 A single level fusion of the T11-T12 motion segment is to be assessed as an impairment from the thoracolumbar region.

6.6.4 A single level fusion of the T12-L1 motion segment is to be assessed as an impairment from the lumbosacral region.

6.7 Single level fusion with another *fracture*

6.7.1 It may be the case that a single level fusion, stabilisation or disc replacement has been performed, but there is also a *fracture* of another vertebra in the same spinal assessment region. In certain circumstances this may justify an increase in the DRE category assessment as described in column 3 of Table A.

6.8 Junction Pathology

6.8.1 As already noted the spine is divided into three regions, however pathology may exist close to or cross over these regions.

6.8.2 Where a *structural inclusion* in Table A involves vertebrae or motion segments which overlap two spinal assessment regions (e.g. T12 and L1, and C7 and T1), the DRE category assessment under column 2 of Table A by reference to "conditions affecting multiple vertebrae" can be given in respect of the more cranial spinal assessment region. Subject to paragraph 6.8.3, this rule should be applied if it will give a higher impairment assessment for the person, when compared with the impairment assessment obtained by assessing each region separately, with strict reference to the spinal assessment regions described in these *Guidelines*.

6.8.3 The rule should not be applied when:

(a) there is a compensable structural inclusion in one spinal assessment region and a pre-existing or otherwise non-compensable structural inclusion in the other spinal assessment region; or

(b) there are three or more affected contiguous vertebrae or motion segments (except in the case of surgical procedure – see Paragraph 6.8.4)

In such cases a DRE category assessment must be assessed for each region separately and with strict reference to the definition of spinal assessment regions in these *Guidelines*.

6.8.4 If a surgical procedure is performed which extends across the junction between two spinal assessment regions, then only one DRE category assessment, being an impairment of the more cranial spinal assessment region, should be given to account for the impairment by reason of the surgical procedure and its outcome.

6.9 Spinal cord damage

6.9.1 Where there is spinal cord damage the assessment must be undertaken using either the methodology for the relevant spinal assessment region (the region with the spinal cord damage) in Section 3.3 (including 3.3a to 3.3j) of Chapter 3 ("The Spine") or in Chapter 4 ("The Nervous System") of the *Guides*.[11]

6.9.2 A person who has sustained spinal cord damage can be assessed using either of those methodologies as described in paragraph 6.9.1 but the impairment ratings assessed via each methodology cannot be combined. It is recommended that both methods are applied and the method providing the greater impairment percentage for the spinal cord damage represents the appropriate assessment.

6.9.3 In various places in the DRE methodology there are references to circumstances where a DRE category assessment is to be combined with bladder and bowel impairment estimates based on the *Guides* chapters on the digestive and urinary and reproductive systems.

In such cases, rather than requiring the person to attend two further assessments pursuant to Chapters 10 and 11 of the *Guides*, it is also possible (and is generally preferable) that the assessment be undertaken using Tables 17 and 18 of Chapter 4 as the injury may be purely neurological in nature.[12] This rule is limited to the circumstances described above. Other than as expressly permitted by this rule, impairment assessed under Chapter 4 of the *Guides* cannot be combined with impairment assessed for the relevant spinal assessment region (the region with the spinal cord damage) from Section 3.3 (including 3.3a to 3.3j) of Chapter 3 of the *Guides* or under these *Guidelines*.

[11] See Tables 13 to 19 in Chapter 4 of the ***Guides***.

[12] The effect of this rule is to override certain paragraphs of the ***Guides***, mainly the first complete paragraph of page 105 and the last paragraph in the left column of page 107, which pertain to the cervicothoracic and thoracolumbar assessment regions. There does not appear to be a similar paragraph relating to the lumbosacral assessment region.

6.10 Reprint 3 or later to be used

6.10.1 Only reprint 3, or later, of the *Guides* may be used (and must be used in conjunction with these *Guidelines*) for the purpose of assessing spinal impairment.

7. Reports

7.1 When reporting an impairment, the DRE category assessment awarded (e.g. "DRE category III") is to be specified and a clear explanation provided, with reference as appropriate to the *Guidelines* or the *Guides*, as to why that category is justified.

7.2 In the *Guides*, there are headings for each DRE category assessment, but those headings do not always accurately reflect why a particular category is appropriate. As such, it is particularly important that a clear explanation is provided, with reference as appropriate to the *Guidelines* or the *Guides*, as to why a particular category is awarded.

8. Guidance about radiology

8.1 Identification and assessment of *fractures* are best undertaken using x-rays and/or CT scans.

8.2 The reader is reminded that the term *fracture* is defined in these *Guidelines*. That definition is repeated here:

> *fracture* means cortical breach of bone, and does not include minor pathology such as bone bruising or microtrabecular *fracture* (or like conditions) that are seen or implied only on MRI or nuclear scanning;

8.3 There should be clear evidence of a *fracture* objectively confirmed by the examiner, exercising clinical skills and utilising ancillary imaging to make a diagnosis of *fracture*.

8.4 The examiner must clearly indicate whether they have viewed the imaging in compiling the assessment.

8.5 Where later x-rays and/or CT scans no longer demonstrate the presence of a *fracture* due to healing then the assessment should be based on earlier studies.

8.6 Special investigations including flexion/extension x-rays should only be undertaken if they are requested on clinical grounds by a treating doctor.

9. Tables

9.1 As is set out in the *Guides* at page 100:

> *"The physician should start with Table 70 (p.108) as a guide toward the appropriate category for the spine impairment. A series of differentiators (Table 71, p.109) describes clinical criteria that correlate with serious physiologic dysfunctional or structural change, which the physician should use to help define the patient's impairment."*

9.2 When using the *Guides* in conjunction with these *Guidelines:*

a) a reference to Table 70 in the *Guides* is to be read as Table R-70 in the *Guidelines;*

b) a reference to Table 72 in the *Guides* is to be read as Table R-72 in the *Guidelines;*

c) a reference to Table 73 in the *Guides* is to be read as Table R-73 in the *Guidelines;*

d) a reference to Table 74 in the *Guides* is to be read as Table R-74 in the *Guidelines;*

e) Impairment assessed by reference to a *structural inclusion*, or to a surgical or other procedure, is to be assessed according to these Guidelines, including Table A (below).

9.3 The Tables (R-70, R-72, R-73, R-74 and Table A) provide only limited information about the actual descriptors for assessing impairment. In addition to the differentiators, physicians should also review the DRE category descriptions on pages 101 to 109 of the *Guides*, and the instructions in these *Guidelines*.

Table R-70. Spine Impairment Categories for Cervicothoracic, Thoracolumbar and Lumbosacral Regions. #

	Category					Category*		
Patient's Condition	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
Complaints or Symptoms	I							
Fracture of transverse or spinous process of single vertebra	I							
10% or less compression of a single vertebral body	I							
More than 10% but less that 25% compression of a single vertebral body		II						
Spinous or transverse process ***fractures two or more vertebrae***		II						
10% or less compression of multiple vertebral bodies		II						
Posterior or like element fracture of a single vertebra without displacement, or with minimal displacement		II						
Single vertebral body compression of 25% to 50%			III					
Posterior or like element fracture of a single vertebra with displacement which disrupts the spinal canal			III					
Two or more ***fractures*** that would individually rate DRE II if assessed separately			III					
Radiculopathy as defined by the ***Guides***			III					
Fractures of multiple vertebrae without radiculopathy as defined for Table A		II	III	IV				
Loss of Motion Segment Integrity of a single motion segment				IV				
Vertebral body compression, greater than 50%				IV	V			
Multiple **fractures** with signs of radiculopathy as defined for Table A			III	IV	V			
Cauda equina syndrome *without* bowel or bladder impairment						VI		
Cauda equina syndrome *with* bowel or bladder impairment							VII	
Paraplegia								VIII
Spondylolysis *without* loss of motion segment integrity or radiculopathy	I	II						
Spondylolysis *with* loss of motion segment integrity or radiculopathy			III	IV	V			
Spondylolisthesis *without* loss of motion segment integrity or radiculopathy	I	II						
Spondylolisthesis *with* loss of motion segment integrity or radiculopathy			III	IV	V			
Spondylolisthesis *with* cauda equina syndrome						VI	VII	VIII
Vertebral body ***fracture*** *without* loss of motion segment integrity or radiculopathy as defined for Table A	I	II	III	IV				
Vertebral body ***fracture*** *with* loss of motion segment integrity or radiculopathy as defined for Table A			III	IV	V			
Vertebral body ***fracture*** *with* cauda equina syndrome						VI	VII	VIII
Vertebral body dislocation *without* loss of motion segment integrity or radiculopathy as defined for Table A		II						
Vertebral body dislocation *with* loss of motion segment integrity or radiculopathy as defined for Table A			III	IV	V			
Vertebral body dislocation *with* cauda equina syndrome						VI	VII	VIII
Minor Spinal Procedure	I							
Spine surgical or other procedure without cauda equina syndrome		II	III	IV	V			
Spine surgical or other procedure with cauda equina syndrome						VI	VII	VIII
Stenosis, or facet arthrosis or disease, or disk arthrosis	I	II						

the reader must heed the caution set out in the text in paragraph 9.3.

*Long-tract categories VI, VII, and VIII for long-tract signs may be combined (using the formula A+B (1-A) as set out in the ***Guides*** at page 322) with impairment percentages of cervicothoracic categories II-V or thoracolumbar categories II-IV (see new Tables R73 and R-74 in these ***Guidelines***).

Table R-72 DRE Lumbosacral Spine Impairment. [#]		
DRE Impairment Category	**Description**	**% Impairment of the whole person**
I	A. Complaints or symptoms; B. ***Structural Inclusions*** as per Table A	0
II	A. Minor impairment: clinical signs of lumbar injury are present without radiculopathy as defined in the ***Guides*** or loss of motion segment integrity; B. ***Structural Inclusions*** as per Table A	5
III	A. Radiculopathy: signs of radiculopathy as defined in the ***Guides*** are present; B. ***Structural Inclusions*** as per Table A	10
IV	A. Loss of motion segment integrity: criteria for this condition are described in Section 3.3b, p. 95; B. ***Structural Inclusions*** as per Table A	20
V	A. Radiculopathy as defined in the ***Guides*** and loss of motion segment integrity B. ***Structural Inclusions*** as per Table A	25
VI	Cauda equina-like syndrome without bowel or bladder impairment	40
VII	Cauda equina syndrome with bowel or bladder impairment	60
VIII	Paraplegia	75

[#] The reader must heed the caution set out in the text in paragraph 9.3.

Table R-73 DRE Cervicothoracic Spine Impairment Categories. #					
DRE Impairment Category	**Description**	**% Impairment of the whole person**	**Impairment % with long-tract signs* combined**		
			VI(40)	VII(60)	VIII(75)
I	A. Complaints or symptoms; B. ***Structural Inclusions*** as per Table A	0	-	-	-
II	A. Minor Impairment: clinical signs of impairment are present without signs of radiculopathy as defined in the ***Guides*** or loss of motion segment integrity; B. ***Structural Inclusions*** as per Table A	5	43	62	76
III	A. Radiculopathy: signs of radiculopathy are present as defined in the ***Guides***; B. ***Structural Inclusions*** as per Table A	15	49	66	79
IV	A. Loss of motion segment integrity or multilevel neurologic compromise; B. ***Structural Inclusions*** as per Table A	25	55	70	81
V	A. Severe upper extremity neurologic compromise: single level or multilevel loss of function B. ***Structural Inclusions*** as per Table A	35	61	74	84
VI	Cauda equina syndrome without bowel or bladder impairment	40	The 40% impairment for Category VI must be combined with the impairment percent from the most appropriate cervicothoracic impairment category, II, III, IV, or V		
VII	Cauda equina syndrome with bowel or bladder impairment	60	The 60% impairment for Category VII must be combined with the impairment percent from the most appropriate cervicothoracic impairment category, II, III, IV, or V		
VIII	Paraplegia	75	The 75% impairment for Category VIII must be combined with the impairment percent from the most appropriate cervicothoracic impairment category, II, III, IV, or V		

*If a person has impairment in cervicothoracic spine impairment category VI, VII, or VIII, the appropriate impairment percent should be *combined* (Combined Values Chart, p. 322) with the percent in cervicothoracic impairment category II, III, IV, or V that best reflects the person's condition.

The reader must heed the caution set out in the text in paragraph 9.3.

Table R-74 DRE Thoracolumbar Spine Impairments. #

DRE Impairment Category	Description	% Impairment of the whole person	Impairment (%) with long-tract signs* combined		
			VI(35)	VII(55)	VIII(70)
I	A. Complaints or symptoms; B. ***Structural Inclusions*** as per Table A	0	-	-	-
II	A. Minor impairment: clinical signs of thoracolumbar injury are present without radiculopathy as defined in the ***Guides*** or loss of motion segment integrity; B. ***Structural Inclusions*** as per Table A	5	38	57	72
III	A. Signs of radiculopathy as defined the ***Guides*** are present; B. ***Structural Inclusions*** as per Table A	15	45	62	75
IV	A. Loss of motion segment integrity or multilevel neurologic compromise; B. ***Structural Inclusions*** as per Table A	20	48	64	76
V	A. Signs of radiculopathy as defined in the ***Guides*** and loss of motion segment integrity; B. ***Structural Inclusions*** as per Table A	25	Impairment percents in thoracolumbar category V are not combined with impairment percents representing long-tract signs for the thoracolumbar spine		
VI	Cauda equina syndrome without bowel or bladder impairment	35	The 35% thoracolumbar category VI impairment must be combined with the impairment percent from the most appropriate thoracolumbar impairment category, IIB, IIIB, or IV		
VII	Cauda equina syndrome with bowel or bladder impairment	55	The 55% thoracolumbar category VII impairment must be combined with the impairment percent from the most appropriate thoracolumbar impairment category, IIB, IIIB, or IV		
VIII	Paraplegia	70	The 70% thoracolumbar category VII impairment must be combined with the impairment percent from the most appropriate thoracolumbar impairment category, IIB, IIIB, or IV		

• *Note:* If a person has an impairment in thoracolumbar spine impairment category VI, VII, or VIII, the impairment percent for that category should be combined (Combined Values Chart, p. 322) with the percent in thoracolumbar category II, III, or IV (*not* V*)* that best reflects the person's condition. Combining a thoracolumbar category II or category III impairment percent with an impairment percent representing long-tract signs (thoracolumbar categories VI, VII, VIII) is appropriate only if the person qualifies for category II-B or category III-B because of the presence of ***structural inclusions***. A thoracolumbar category V impairment should *not* be combined with a category VI, VII, or VIII impairment representing the presence of long-tract signs.

The reader must heed the caution set out in the text in paragraph 9.3.

Table A: Spine Impairment Categories assessed by reference to structural inclusions

DRE Category	Column 1	Column 2	Column 3	Impairment % of whole person for regions		
				Cervicothoracic	Thoracolumbar	Lumbosacral
	Conditions affecting a single vertebra	**Conditions affecting multiple vertebrae**	**Structural impairment assessed by reference to a surgical or other procedure**			
I	10% or less compression of a single vertebral body; or A fracture, with or without displacement, of a spinous or transverse process of a single vertebra.		One or more ***minor spinal procedures.***	0	0	0
II	More than 10% but less than 25% compression of one vertebral body; or ***Posterior or like element*** fracture without displacement, or with minimal displacement.	10% or less compression of two or more vertebral bodies; or Fracture, with or without displacement, of spinous and/or transverse process of two or more vertebrae; or Two or more vertebrae with any combination of the single fracture types mentioned above.	Single level ***discectomy*** and/or ***laminectomy*** and/or ***laminotomy*** without signs of radiculopathy as defined for Table A*.	5	5	5

Table A: Spine Impairment Categories assessed by reference to structural inclusions

III	25% to 50% compression of one vertebral body; ***Posterior or like element fracture*** with displacement which disrupts the spinal canal.	More than 10% but less that 25% compression of two or more vertebral bodies; or Posterior or like element ***fracture*** without displacement, or with minimal displacement that does not disrupt the spinal canal of two or more vertebrae; or Two or more vertebrae with any combination of the single ***fracture*** types mentioned directly above.	Single level ***discectomy*** and/or ***laminectomy*** and /or ***laminotomy*** with signs of radiculopathy as defined for Table A*; Multilevel ***discectomy*** and/or ***laminectomy*** and/or ***laminotomy*** without signs of radiculopathy as defined for Table A*; Single level surgical stabilisation, disc replacement or fusion without signs of radiculopathy as defined for Table A*.	15	15	10
IV	Greater than 50% compression of one vertebral body; or DRE III is justified based on the descriptors from column 1 above *and*, signs of radiculopathy as defined for Table A*.	More than 25% but less than 50% compression of two or more vertebral bodies; or ***Posterior or like element*** fracture with displacement which disrupts the spinal canal of two or more vertebrae; or Two or more vertebrae with any combination of the single ***fracture*** types mentioned directly above; or DRE III is justified based on the descriptors from column 2 above, *and*, signs of radiculopathy as defined for Table A*.	Single level surgical stabilisation, fusion or disc replacement with signs of radiculopathy as defined for Table A*; Multilevel surgical stabilisation, fusion or disc replacement with or without signs of radiculopathy as defined for Table A*; Multilevel **discectomy** and/or ***laminectomy*** and/or ***laminotomy*** with signs of radiculopathy as defined for Table A*; Single level surgical stabilisation , disc replacement or fusion without signs of radiculopathy as defined for Table A*, *and*, another ***fracture*** within the same spinal assessment region that would justify DRE category III if assessed separately (but not ***fracture*** of a vertebra which is part of the motion segment that has been fused).	25	20	20

Table A: Spine Impairment Categories assessed by reference to structural inclusions

V	DRE IV is justified based on the descriptors from column 1 above, *and*, signs of radiculopathy as defined for Table A*.	DRE IV is justified based on the descriptors from column 2 above *and*, signs of radiculopathy as defined for Table A*.		35	25	25

The term '***posterior or like element***' is specifically defined in the 'definitions' section of these ***Guidelines*** at paragraph 3.9.

*In Table A, signs of radiculopathy means signs verified by reference to differentiators 2, 3, or 4 (but not differentiator 1) of Table 71 in the ***Guide***s, or verified by the presence of well-defined myotomal weakness.

Readers are reminded of the following rule which is stated in paragraph 6.5.3 of these ***Guidelines***: "A ***discectomy*** and/or ***laminectomy*** and/or ***laminotomy*** is to be regarded as at a single level (Table A column 3 DRE III) if performed within the same motion segment".

Made pursuant to Section 46A(2C) of the *Transport Accident Act* 1986 on [date] by the Transport Accident Commission with the approval of the Minister responsible for the administration of the Act, The Hon. G. K. Rich-Phillips, MLC, Assistant Treasurer.

(signed)

For and on behalf of the Transport Accident Commission

(signed)

Assistant Treasurer

Appendix B Terms of reference

Terms of Reference

Drafting of a Guides Modification Document for the Assessment of Spinal Impairment

BACKGROUND

The Transport Accident Commission (**TAC**) is a statutory authority created under the *Transport Accident Act 1986* (**the Act**). The TAC administers a comprehensive no-fault and common law damages compensation scheme for people who are injured or die as a result of a transport accident within Victoria or interstate[1]. In the 2012/2013 financial year, the TAC provided 45,038 people with benefits and paid a total of $1.01 billion in support services and common law benefits.

In order to determine an injured person's entitlement to lump sum compensation, the TAC is required to assess and determine the degree of whole person impairment, in accordance with the provisions of the Act[2].

Prior to the Supreme Court of Victoria decision in *Transport Accident Commission v. Serwylo* [2010] VSC 421(Serwylo), expert medical practitioner impairment assessors expressed differing views about whether pathology at multiple levels in a spinal assessment region represented multi-level structural compromise, or not; with assessments varying between Diagnosis Related Estimate (DRE) Category I and IV under the American Medical Association: Guides to the Evaluation of Permanent Impairment – 4th Edition[3] (Guides).

Following *Serwylo*, multiple fractures or dislocations following a transport accident are now sufficient to deem that the level of impairment be assessed under DRE Category IV, irrespective of whether the fractures are considered by expert medical practitioners to be significant enough to be characterised as causing multi-level structural compromise.

On 14 November 2013, the Victorian Parliament passed the *Transport Accident Amendment Act* 2013. As amended, Section 46A(2C) of the Act now provides that:

> (2C) The Commission may, with the approval of the Minister, make a Guides Modification Document containing guidelines regarding the use and application of the A.M.A Guides for the purposes of this Act including but not limited to guidelines that—
>
> (a) amend the A.M.A Guides;
>
> (b) provide for the application or interpretation of the A.M.A Guides, including provision for modified

[1] Involving a Victorian registered vehicle.
[2] The TAC makes the determination based on assessments available to it. The determination is not made by a medical practitioner or by a Medical Panel. See also *Gillat v TAC* [2003] VSC 15.
[3] Reprint 3, or later and as modified by the provisions of the *Transport Accident Act 1986*.

application, or exclusion, of part or all of the A.M.A Guides;

(c) substitute or replace part or all of the A.M.A Guides.

(2D) A Guides Modification Document made under subsection (2C) must be published in the Government Gazette as soon as practicable after it is approved by the Minister.

OBJECTIVES AND SCOPE

The Guides Modification - Spinal Expert Panel (**the Panel**) is required to provide a Guides Modification Document (Guidelines) in accordance with Section 46A(2C) of the Act to modify the DRE Method of assessing spinal impairment in the Guides to address the consequences of the *Serwylo* decision.

The Guidelines are required to:

(a) address the items numbered 1-9 which are described below;

(b) not conflict with the provisions of the Act;

(c) promote less disputation about impairment assessment rather than more disputation of impairment assessment;

(d) give consideration to the efficacy of modifications developed in other Australian Compensation Jurisdictions as a starting point;

(e) reflect the intention and promote the purpose of the Act.

In considering the intention and purpose of the Act it is relevant to note Section 8 of the Act which includes the following objectives:

(a) to reduce the cost to the Victorian community of compensation for transport accidents;

(b) to provide, in the most socially and economically appropriate manner, suitable and just compensation in respect of persons injured or who die as a result of transport accidents;

(c) to determine claims for compensation speedily and efficiently.

ITEMS FOR PANEL CONSIDERATION

1. The language of DRE Category IV: What words should constitute the descriptor for Structural Inclusion (2) for DRE Category IV for each of the three assessment regions of the spine?

Currently, the Guides use similar but inconsistent language for each of these descriptors. The Panel is required to consider what descriptor/s should apply for each assessment region of the spine.

A related issue is the meaning and application of the phrase 'multilevel structural compromise' which is found in Table 70 of the Guides[4].

2. What parts of the spine appropriately belong to each assessment region?

The Panel is required to provide a clearer definition of the assessment regions of the spine. The definition should address the inclusion, or not, of the sacrum and occipital condyle.

The Panel is required to provide direction regarding the approach that should be taken when multiple levels of spinal pathology involve the junction between two assessment regions.

3. What fracture patterns constitute multi-level structural compromise?

The Panel is required to examine fracture patterns that occur in the spine, and determine whether particular fracture patterns should be considered to be causing multilevel structural compromise structural compromise.

The examination should include the status of:

- Fractures of various types affecting the body of a vertebra, including crushing fractures, fractures of the vertebral end plate, and micro trabecular fractures;
- Fractures of the posterior elements of the vertebra, including those extending into the transverse foramen;
- Fractures of the atypical bony structures of the 1st and 2nd cervical vertebrae, including the dens.

4. What pathology described as a dislocation constitutes multi-level structural compromise?

The Panel is required to examine patterns of dislocation (or non-bony pathology), and determine whether particular patterns of dislocation should be considered to be causing multilevel structural compromise.

[4] For the purposes of this document , the phrase "multi-level structural compromise" from Table 70 is used to signify the varying words used in Structural Inclusion(2) of DRE Category IV and as well as the terminology from Table70.

5. Whether Spinal Surgery should be regarded as causing multi-level structural compromise?

The Panel is required to consider whether surgical procedures performed on the spine should be regarded as causing multi-level structural compromise, and if so, how this should be dealt with when assessing impairment.

6. Assessing the effect of healing on the assessment of multi-level structural compromise

The Panel is required to consider how the healing of spinal pathology should be accounted for when considering whether there is multilevel structural compromise.

In considering this issue, the Panel will need to give consideration to directions in the Act, including:

- The requirement for the TAC to assess the degree of impairment, not injury;[5]
- The requirement to assess impairment when the injury stabilises;[6]
- The removal of text from page 3/100 of the AMA Guides;[7]
- The requirement that "the degree of impairment resulting from an injury must be made based on the person's current impairment as at the date of the assessment, including any changes in the signs and symptoms following the any medical or surgical treatment undergone by the person in respect of the injury."[8]

7. Appropriate use of radiological studies when interpreting whether there is multilevel structural compromise

The Panel is required to consider whether, and if so, what guidance should be provided regarding the use of radiological studies when considering if multi-level structural compromise is present.

8. Consequential changes the descriptors of other DRE Categories

The Panel is required to determine whether consequential changes are necessary to the language of other DRE category descriptors, tables or the text of the Guides. Recommendations for any such changes must be clearly defined and be linked to the objective of addressing the consequences of the *Serwylo* decision.

9. Efficiency: Making the AMA Guides more consistent and easier

Consistent with the objective of the Act to "determine claims for compensation speedily and efficiently", in addressing the issues described above, the Panel is

[5] *Section 46A of the Transport Accident Act 1986.*
[6] *Section 46A(1) of the Transport Accident Act 1986 and Baylis v TAC* [2004] VSC 102.
[7] *Section 46A(2B) of the Transport Accident Act 1986.*
[8] *Section 46A(2A) of the Transport Accident Act 1986 and Baylis v TAC (supra).*

required to provide Guidelines which make the DRE methodology of the AMA Guides more consistent and easier to apply.

COMPOSITION AND CONSULTATION

The Panel will be chaired by Mr Gary Speck (Orthopaedic specialist and Chair of the Spine Reference Group of the Ministerially Approved Training Course (MATC) in the application of the Guides[9]).

The Panel will also comprise the following members:

- Associate Professor Stephen Hall (Rheumatologist and member of the Spine Reference Group;
- Associate Professor Richard Stark (Neurologist and Chair of the MATC Committee of Management[10]);
- Mr David Brownbill (Neurosurgeon);
- Mr Robert Dickens (Orthopaedic Specialist), and
- Mr Peter Wilde (Orthopaedic Specialist and President of the Spine Society of Australia[11]).

The TAC will provide the Panel with administrative and secretarial support as required and will respond to any formal legislation or policy questions made by the Panel. The Panel will be supported where necessary by the TAC who will provide advice regarding the experience of the TAC in managing impairment claims which are affected by the *Serwylo* decision.

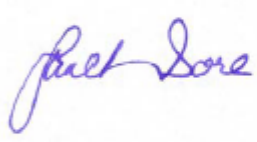
The Panel will consult where necessary with other medical practitioners who are accredited Guides assessors at a consultation event on or about 12 March 2014.

TIMING

The Panel must provide the proposed Guidelines to the TAC by the 31 March 2014.

MEDIA AND PUBLIC ENQUIRIES

All media and public enquiries must be directed to the TAC's corporate affairs team on (03) 5225 6591.



Janet Dore
Chief Executive Officer
Transport Accident Commission
Dated: 5 February 2014

[9] National Chairman, Australian Society of Orthopaedic Surgeons and Director of AMA Victoria.
[10] Chair of the Neurology Reference Group of the MATC, Chair of the Core Module Reference Group of the MATC and previous member of the Spine Reference Group.
[11] Head of Vertebral Column Surgery, University of Melbourne Clinical School, Austin Hospital.

Appendix C Calculation of cost per accident year and liability amounts resulting from Serwylo

This appendix provides information on the calculations of the cost per accident year and liability amounts resulting from Serwylo and from the GMD, as well as an explanation of the non-linear relationship between number of claimants affected and value of the transfer between claimants with multiple spinal fractures and the scheme under each implementation option.

It should be noted that all figures outlined in this section are estimates only, and are based on assumptions that are uncertain. The underlying data was provided by either the TAC itself or various other sources as indicated in the text. Estimates relating to cost and liability have been provided in consultation with PwC Actuarial, which is the TAC's actuary.

It is important to note here that any reduction in compensation to claimants would reduce cost pressure on the scheme. From a cost-benefit analysis perspective, this impact simply represents a transfer of resources or redistribution between two groups in society. Transfers can only be regarded as enhancing community wellbeing if a decision is made that one group derives more value from the resources than the other. In this case, we do not make this assumption and so the cost-benefit impact of this transfer is therefore nil.

Post-Serwylo cost and liability calculations

Data provided by the TAC covering impairment claims over the past decade identified that on average, there are 1,500 impairment claims per year. In order to identify the impact of Serwylo, we identified the proportion of claimants with spinal injuries in the DRE II or DRE III category whose WPI was likely to increase to DRE IV or above as a result of the consequences arising from Serwylo. This is outlined in Table 13.

Table 13: Number of Serwylo affected claims per year

	Proportion of line above	Number of claims
Total Impairment Claims per year	N/A	1,500
Spinal injury proportion	43%	645
DRE 2 or 3 proportion of spinal injuries	90%	581
Proportion affected following Serwylo (likely to increase to DRE IV)	27% (11% of total)	**159**

Source: PwC analysis of TAC data.

Following Serwylo, three compensation types were affected:

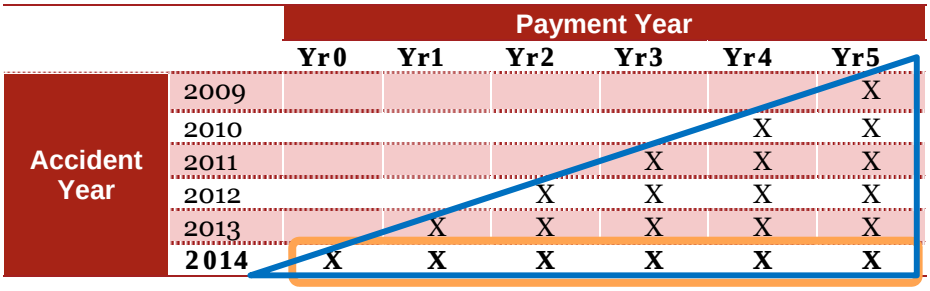
1) Impairment lump sum benefits.
2) Common law damages.
3) Additional LOEC benefits.

In each case, we have worked out a cost per new accident year, which is broadly the number of claims affected multiplied by the average increase per claim. In addition, we have defined the increase in current liability to the TAC.

The current liability is the amount of funds owing to claimants still in the system. This is comprised of the total cost of accidents in each past year, less the amount not yet paid out in respect of those accidents. TAC data has shown that the number of accidents and the average cost of accidents have remained relatively constant over the recent past. Therefore, it is appropriate to use an estimation of the current year cost to calculate a retrospective liability measure.

Figure 3 below outlines an example of the total liability for 2014. The orange square represents the total cost of impairment claims to the TAC in the most recent year, which we assume to be relatively consistent.[72] The liability is then the sum of this cost over past years less the compensation entitlements already paid out. The liability is represented by the blue triangle in the diagram below. Everything outside the blue triangle is assumed to have been paid. Mathematically, we can apply a liability multiplier to the cost per new accident year for each compensation type based on TAC data surrounding the average time taken for compensation to be paid out.[73] Conceptually, the liability multiplier reflects the average number of years between accident date and final payment date. In terms of the three compensation types dealt with in this analysis, impairment benefits are traditionally paid out the soonest, and therefore have the lowest liability multiplier. Common law payments, which have to go through the court system traditionally take longer, while additional LOEC compensation is a recurring amount that can be paid until the claimant reaches retirement age. In essence, a longer lag between accident and average payment date equals a higher liability multiplier.

Figure 3: Liability multiplier example



1) Impairment benefits

The data provided by the TAC showed that the average increase in impairment benefits per claim amounted to $27,000, equating to a total increase of $4.3 million per new accident year and a liability impact on impairment benefits of $15.5 million (refer to Table 14).

[72] This assumption is based on TAC time series data that shows that the number of claims has remained approximately constant over the past decade or so. The assumption is also consistent with that used in our cost-benefit analysis. Data has also suggested that the cost per claim has not differed materially year on year, due to the stable mix of injuries. There is no reason to suggest that there will be any significant change to these trends in the foreseeable future.

[73] Note that all liability figures in this analysis have been calculated using discount rates implied by the 31 December 2012 government bond yields. Refer to: F2 Capital Market Yields- Government Bonds < http://www.rba.gov.au/statistics/tables/>.

Table 14: Cost relating to Serwylo on impairment benefits

Change in impairment cost and liability	Value
Number of claims with change in WPI	159
Average increase in impairment benefit	$27k
Cost per new accident year	**$4.3m**
Liability multiplier	3.6
Change in liability	**$15.5m**

Source: PwC analysis of detailed TAC data.

2) Common law damages

Due to the uncertain nature of common law payments, there are a number of factors to consider.

Taking into account the number of claimants affected by the consequences arising from Serwylo that are already receiving common law payments, the change in serious injury as a result of the new WPI assessment and the requirement that the client was not at fault, we have estimated the number of additional claims to be 20.6 (refer Table 15 below). At an average cost of $270,000 per claim, this equates to a total cost for new claims of $5.5 million.[74]

Our analysis also considered existing common law claims that will be settled prior to the impairment benefit.[75] In these cases, new common law claims will not be generated. However, we have assumed that the damages amount for these claimants is likely to increase in practice as a higher impairment score may factor in to the settlement process. It is important to note that common law damages are based on the level of pain and suffering, loss of future earnings and contributory negligence. Therefore, WPI is only one input into the calculation of the settlement amount. Given this, we have assumed that common law damages are half as sensitive to changes in WPI as impairment benefits are (impairment benefits are almost exclusively determined by WPI). Our estimate of the increase per claim is therefore half of the per claim impairment increase of $27,000 ($14,000). The data showed that there will be on average 34 of these cases per year, producing a total cost of $0.5 million. Added to the $5.5 million above, the total cost is $6.0 million.

Lastly, from data provided by the TAC we can estimate that approximately half of claimants receiving impairment benefits will be eligible for common law payments (that is, qualify as 'seriously injured' and not be the at fault party). Claimants receiving both impairment benefits and common law settlement will have the latter payment offset against the former (regardless of which is paid out first). As outlined in Table 14, the increase in impairment per new accident year is $4.3 million. Therefore, approximately half of this increase ($2.1 million) will be offset against the increase in common law settlement. This takes the total net increase for common law damages to $3.9 million. Refer to Table 15 for a summary of the calculation.

74 Figures may not sum exactly due to rounding

75 This refers to claims that are still eligible for common law prior or subsequent to Serwylo, however may have their settlement amount affected.

Table 15: Cost relating to Serwylo on common law damages

Change in common law cost	Value
Number of claims with change in WPI	159
Already receiving common law	80
Potential additional common law claims	*79*
Proportion of claims where claimant not at fault	40%
Proportion that will now reach SI threshold	65%
Additional claims- Impairment received	*20.6*
Average cost per claim	$270k
Cost for new claims	**$5.5m**
Claims that have not yet received impairment	34
Increase in settlement size	$14k
Cost for existing claims	**$0.5m**
Cost per new accident year	**$6.0m**
Offset from impairment benefits	-$2.1m
Net cost per new accident year	**$3.9m**

Source: PwC analysis of detailed TAC data.

The liability increase post-Serwylo is estimated as $20.7m (refer to Table 16). The offset from impairment figure is calculated by multiplying the $2.1m offset in Table 15 by the impairment benefit liability multiplier of 3.6.

Table 16: Common law damages liability change from Serwylo

Change in common law liability	Value
Cost per new accident year	$6.0m
Liability multiplier	4.7
Change in liability (prior to overlap adjustment)	**$28.4m**
Offset from impairment	-$7.7m
Change in liability	**$20.7m**

Note: Figures may not sum exactly due to rounding

Source: PwC analysis of detailed TAC data.

3) Additional LOEC benefits

The key additional assumptions relating to the effect on LOEC following Serwylo are:

- the proportion of claims expected to now exceed WPI of 50 per cent
- the average cost of these claims.

We have estimated that 8 per cent of claimants will experience an increase above the 50 per cent WPI threshold and the average benefit per claimant will be approximately $500,000. In addition, we have taken into account that as per above, approximately 50 per cent of claimants are receiving common law damages and will therefore experience a reduced LOEC benefit.[76] The number of additional income claims post-Serwylo is estimated to be 6.4, equating to a cost of $3.2 million per new accident year, as shown in Table 17.

Table 17: Cost relating to Serwylo on additional LOEC benefits

Change in LOEC cost	Value
Number of claims with change in WPI	159
Proportion not receiving common law	50%
Proportion exceeding 50% post-Serwylo	8%
Additional LOEC claims beyond 3 years	6.4
Average cost	$500k
Cost per new accident year	**$3.2m**

Source: PwC analysis of detailed TAC data.

The liability impact must take into account that the LOEC benefits are paid out on an ongoing basis into the future. Therefore, the discount rate used is lower when calculating liability estimates than cost estimates.[77] This increases the average cost per claim to $700,000. This means that for liability purposes the total cost per year is $4.5 million, as opposed to the $3.2 million calculated above. The total liability impact is $31.3 million, as shown in Table 18

[76] Note that we have subtracted the claimants receiving common law prior to Serwylo rather than subsequent to it. This proportion assumes that the additional claimants receiving LOEC benefits and that receiving common law damages following Serwylo are separate populations. The estimate is therefore an upper bound as there could be some overlap between the two, which would reduce the affected population and the total cost. However, as the average costs differ between the two compensation types (LOEC is higher), it is reasonable to assume that claimants who were entitled to common law damages may still continue on LOEC, which would mean minimal overlap.

[77] Lower discount rates (than those used in the annual cost estimates) have been used for liability calculation here based on the discount rates implied by the 31 December 2012 government bond yields, which are 5.50% in the long run. This is due to the requirements of the accounting standard AASB1023 and the actuarial standard PS300, which stipulates that risk free valuation rates must be used to discount future cash flows. Refer to: F2 Capital Market Yields- Government Bonds at < http://www.rba.gov.au/statistics/tables/>.
The risk free rates have been implicitly used in the calculation of the liability of the other two compensation types as well, however the difference in the average cost calculation was immaterial due to the shorter duration of the payments.
As there is no standard for annual cost estimates, it was deemed that the TAC long run forecasted investment rate of return of 7.50% was a more appropriate estimate.

Table 18: Additional LOEC benefits liability change from Serwylo

Change in LOEC liability	Value
Additional LOEC claim beyond 3 years	6.4
Average cost	$700k
Cost per year	**$4.5m**
Liability multiplier	7
Total liability increase	**$31.3m**

Note: Figures may not sum exactly due to rounding

Source: PwC analysis of detailed TAC data.

The total costs and liability impact resulting from the consequences of Serwylo are summarised in Table 19.

Table 19: Estimated change in costs and liability impact following Serwylo

Change in LOEC liability	Estimated cost per new accident year	Estimated change to liability
Impairment Lump Sum Benefits	$4.3m	$15.5m
Loss of Earnings Capacity Benefits	$3.2m	$31.3m
Common Law Damages	$3.9m	$20.7m
TOTAL	**$11.4m**	**$67.5m**

Source: PwC analysis of detailed TAC data

Post-GMD cost and liability calculations

The TAC estimates that the GMD is likely to restore 80 per cent of the number of claimants with multiple spinal fractures to the pre-Serwylo state. To estimate the cost and liability saving to the scheme, it is necessary to use a weighted average of the percentage of claimants affected for each type of additional compensation entitlement. As shown in Table 20 and Table 21, the actual cost saving of the GMD as a proportion of the post-Serwylo impact is 74.5 per cent. This is lower than the 80 per cent of claimants affected as it takes into account changes in common law and LOEC payments, which are a subset of impairment claims and expected to be less sensitive to the GMD changes.

Table 20: Scheme cost impact following GMD implementation

Type of compensation	Post-Serwylo impact per new accident year	Estimated impact of GMD (%)	Estimated impact of GMD ($)	Residual post-Serwylo impact
Impairment Lump Sum Benefits	$4.3m	-80%	-$3.4m	$0.9m
Loss of Earnings Capacity Benefits	$3.2m	-78%	-$2.5m	$0.7m
Common Law Damages	$3.9m	-65%	-$2.6m	$1.3m
TOTAL	**$11.4m**	**-74.5%**	**-$8.5m**	**$2.9m**

Note: Figures may not sum exactly due to rounding

Source: PwC analysis of detailed TAC data.

The estimated saving to the scheme per new accident year once the GMD is implemented is therefore $8.5 million.

Table 21: Liability impact following GMD implementation

Type of compensation	Post-Serwylo impact per new accident year	Estimated impact of GMD (%)	Estimated impact of GMD ($)	Residual post-Serwylo impact
Impairment Lump Sum Benefits	$15.5m	-80%	-$12.4m	$3.1m
Loss of Earnings Capacity Benefits	$31.3m	-78%	-$24.4m	$6.9m
Common Law Damages	$20.7m	-65%	-$13.5m	$7.2m
TOTAL	**$67.5m**	**-74.5%***	**-$50.3m**	**$17.2m**

Note: Figures may not sum exactly due to rounding

Source: PwC analysis of detailed TAC data.

The GMD is estimated to reverse 74.5 per cent of the TAC's current liability if applied to all claimants in the scheme. This translates to a liability saving of $50.3 million, leaving a residual liability of $17.2 million.

Table 22 outlines how much of this potential liability saving is actually realised under the proposed implementation options. Under Implementation Option 1, the liability saving is zero as only future claimants are affected, and therefore the full post-Serwylo liability to existing claimants will remain. However, in Implementation Option 2, all existing claimants will be subject to the new GMD, except those who undergo their impairment assessments between 1 July 2014 and 31 December 2014.Therefore, the post-Serwylo liability to all existing claimants except those who are assessed within this timeframe will be cleared. The liability saving is estimated to be $46 million, which is the full $50.3 million worth of existing claimant liability minus the cost of the six months' worth of claimants that the GMD will not apply to under Implementation Option 2 ($8.5 million/2 = $4.3 million).

Table 22: Liability saving captured under each implementation option

Type of compensation	Post-Serwylo impact per new accident year
Additional liability incurred post-Serwylo	$67.5m
Potential liability reversed by GMD	$50.3m
Liability reversed under **Implementation** Option1	$0m
Liability reversed under **Implementation** Option 2	$46m

Source: PwC analysis of detailed TAC data

Number of claims affected vs value of transfer under each implementation option

Table 23: Extract of equity impact and transfer under each implementation option

Type of compensation	Implementation Option 1	Implementation Option 2	Difference	Percentage difference
Number of claimants affected	1251	1788	537	**43%**
Value of transfer	$68.4m	$114.4m	$46m	**67%**

Source: PwC analysis of detailed TAC data

As shown in Table 23, Implementation Option 2 affects 43 per cent more claimants but represents an additional transfer of 67 per cent. This nonlinearity is based on differences in average cost between existing and future claimants. The transfer value in Implementation Option 1 is based on future claimants only, and is therefore a function of the cost per new accident year of $8.5 million, outlined in Table 20. The largest component of this cost relates to impairment benefits, which account for approximately 40 per cent ($3.4 million/$8.5 million).

On the other hand, the transfer value of Implementation Option 2 is based partially on the payments owing to existing claimants, which is represented by the liability calculations outlined in Table 21. The liability figure of $50.3m is heavily dominated by the LOEC benefits ($24.4 million/$50.3 million = 49 per cent). This is due to LOEC benefits traditionally taking much longer to pay out than the other two compensation types, which are lump sum in nature.

Therefore, the weighting between the three compensation types for future and existing claimants differs. This has important implications on the transfer values as LOEC benefits have a much higher average cost per claimant associated with them than impairment benefits due to their ongoing nature (Refer Table 14, Table 15 and Table 17).

Hence, the 516 existing claimants[78] affected under Implementation Option 2 have compensation entitlements that are skewed towards LOEC benefits, and therefore have a higher average cost associated with them.

Furthermore, the liability calculation that is the basis of the difference between the transfer amounts for the two options ($46 million) also uses a discount rate that is lower than the discount rate associated with the future claimant cost calculation (refer to footnote 77 for

[78] The remaining 21 of the 537 claimants affected under Implementation Option 2 but not Implementation Option 1 relate to those injured between 1 July 2014 and 31 August 2014, and are therefore still considered as future claimants for the purpose of our analysis.

explanation). This has the effect of inflating the transfer of Implementation Option 2 and is therefore also partially responsible for the non-linear relationship between the number of claims and the difference in the value of the transfer.

Appendix D Letter outlining Expert Panel considerations for GMD

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13 May 2014

Ms Janet Dore
Chief Executive Officer
Transport Accident Commission
60 Brougham Street
Geelong, Victoria

Dear Ms Dore

I refer to the draft of Guides Modification Document (GMD) which was previously provided by the Panel to the TAC in mid-April 2014. The GMD is some 20 pages long and addresses the Terms of Reference provided by the TAC to the Panel.

The Spinal Expert Panel (the Panel) worked on the draft Guides Modification Document (GMD) in February, March and April of 2014. The underlying principles for the Panel in formulating the GMD was equity for the injured, and clarity and transparency for claimants and their advisors, medical examiners and claims assessors. The work involved formal meetings as well as circulation and review of information via email. Various impairment assessment methodologies from Australian compensation jurisdiction were reviewed, and the Panel chose to develop its own modifications to the methodology of the Guides.

A consultation session was conducted on the evening 12th March 2014 and was moderated by the chair of the Panel (Mr Gary Speck). Invitations to attend the session were extended to all doctors who had successfully completed the Spine module of the Ministerially approved training course in the application of the Guides. Those who elected to attend were required to sign a confidentiality agreement. At the session, the attendees were provided with a background briefing along with a copy of draft of GMD as it stood at that time. Attendees were asked to test the methodology of the draft GMD by assessing various common impairment assessment scenarios. Feedback from the consultation session was collected, summarised, and presented back to the Panel. The feedback was helpful in that it confirmed the validity of approaches taken by the Panel and highlighted parts of the methodology requiring further work. The feedback led to further changes to the draft methodology.

I understand that the draft GMD will be included in a Regulatory Impact Statement and will be circulated for public comment. A summary of the approach the Panel took in developing the GMD in response to the Terms of Reference follows. The headings in bold below are taken from the Terms of Reference.

The language of DRE Category IV: What words should constitute the descriptor for Structural Inclusion (2) for DRE Category IV for each of the three assessment regions of the spine?

The Panel has considered what type of spinal fractures, surgeries and other spinal pathologies should justify DRE Category IV on the basis of being considered a structural inclusion. A new table of

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structural inclusions (Table A) has been developed which outlines which structural inclusions justify DRE Category IV (and, consequently, what structural inclusions justify DRE I, DRE II, DRE III & DRE V). Having decided what structural inclusions should justify DRE IV, the Panel has elected not to include the problematic terms *'as with'* or *'structural compromise'* in the GMD.

What parts of the spine appropriately belong to each assessment region?

The Panel has provided a much more detailed definition of what parts of the spine constitute each spinal assessment region. In the Guides the status of certain structures such as the occipital condyle is unclear but it is now addressed in the GMD. Clear rules have also been developed to address difficult assessment scenarios when spinal pathology occurs near to the boundary between two assessment regions.

What fracture patterns constitute multi-level structural compromise?

In the Guides there was only one DRE Category descriptor (DRE IV) which appeared to contemplate assessment of multiple fractures.

In the GMD, the new table of structural includes reference to assessment of multiple fractures in four DRE category assessments. The approach taken by the Panel uses the existing (familiar) types of the descriptors to establish a graduated, logical and equitable assessment based on increasing severity of certain spinal fracture patterns.

What pathology described as a dislocation constitutes multi-level structural compromise?

By providing gradated DRE Category assessments for spinal surgery and procedures, the Panel has provided an equitable methodology for assessment of dislocation of vertebrae that necessitates surgical intervention. The routine use of MRI scanning is now resulting in cases of true dislocation routinely being treated with surgery. In other cases involving subluxation of vertebra the Panel acknowledge that there are existing DRE Category assessments from DRE II, III or IV available based on the descriptors for *'description and verification'*.

Whether spinal surgery should be regarded as causing multi-level structural compromise?

There is little guidance about how to assess the outcome of spinal surgery in the Guides. The Panel has confirmed that medical consequences of certain spinal surgeries represent an impairing factor, and have included four graduations of DRE Category assessment for spinal surgeries and procedures in the new table of structural inclusions, including a modifier to the assessment category based on whether radiculopathy is present after surgery, or not.

In an approach which is consistent with instructions in Chapter 2 of the Guides regarding provision of *'thorough and complete historical information*" regarding a medical condition, the Panel have "strongly recommended that operation reports be made available to the impairment assessor so that the precise nature of surgery to the spine can be understood".

Assessing the effect of healing on the assessment of multi-level structural compromise

The Panel has provided a definition of a 'fracture' in the GMD and have provided guidance that the definition (for the purpose of assessment using the GMD) does "not include minor pathology such as bone bruising or microtrabecular fracture".

The Panel have elected to take an approach where the fact that fracture has occurred, then carries with it an ongoing impairment. This approach is consistent with the approach taken in the Guides where certain 'healed fractures' justify an impairment score. In taking this approach the Panel was very mindful of the need to avoid a situation where persons being assessed might routinely be required to undertake invasive radiological scanning to verify if certain fractures had healed, or not.

Appropriate use of radiological studies when interpreting whether there is multilevel structural compromise

The Panel have confirmed that assessment of fractures is best undertaken using x-rays and/or CT scans, and have provided further guidance about the need to clearly indicate whether fractures have been objectively confirmed by an examiner based on review of the actual imaging studies.

Consequential changes to the descriptors of other DRE categories

In defining graduated levels of impairment based on structural inclusions, the Panel has made consequential changes to the criteria for structural inclusions in DRE Categories I to V. The Panel has not altered any of the descriptors in the Guides based on '*description and verification*'. In some of the DRE category description in the table of structural inclusions there is reference to the presence (or not) of "radiculopathy as defined for Table A". The Panel defined the descriptor of radiculopathy as it is to be used for consideration of Table A only. There are various other references to radiculopathy in other parts of the guides (other than when used in conjunction with structural inclusions) and the Panel have specifically avoided making any changes to those references.

In the Guides, Tables 70, 72, 73 & 74 summarise the various impairment scores available under the Guides. The panel have provided revised versions of these Tables to reflect the changes to the assessment of structural inclusions in the GMD.

Efficiency: Making the AMA Guides more consistent and easier

The Panel have elected to provide one set of descriptors in the table of structural inclusions which are to apply consistently to each of the three spinal assessment regions. The descriptors are clear and based on questions of fact pertaining to certain fracture patterns and surgeries (What is the degree or crush of the vertebral body? What type of spinal surgery has been performed?).

The Panel have also provided 'definitions' of key terms and have indicated that terms are 'defined' by use of bolded italics in the GMD. The provision of such definitions will make the GMD easier to

use. By contrast, the term '*structural compromise'*, which was of central importance in the Serwylo case, is not actually defined in the Guides.

The Panel have also addressed problems in the Guides that arise on consideration of multiple fractures such as whether multiple fractures or single vertebra should be assessed, or how multiple fractures with associated spinal cord damage should be addressed. The approach of the Panel is to make the rules in the Guides quite explicit so that they are clear to all users of the Guides and GMD, with a view to making assessment easier to undertake and more consistent.

The Panel is pleased to submit the Guides Modification Document.

Yours faithfully

Gary Speck FRACS

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