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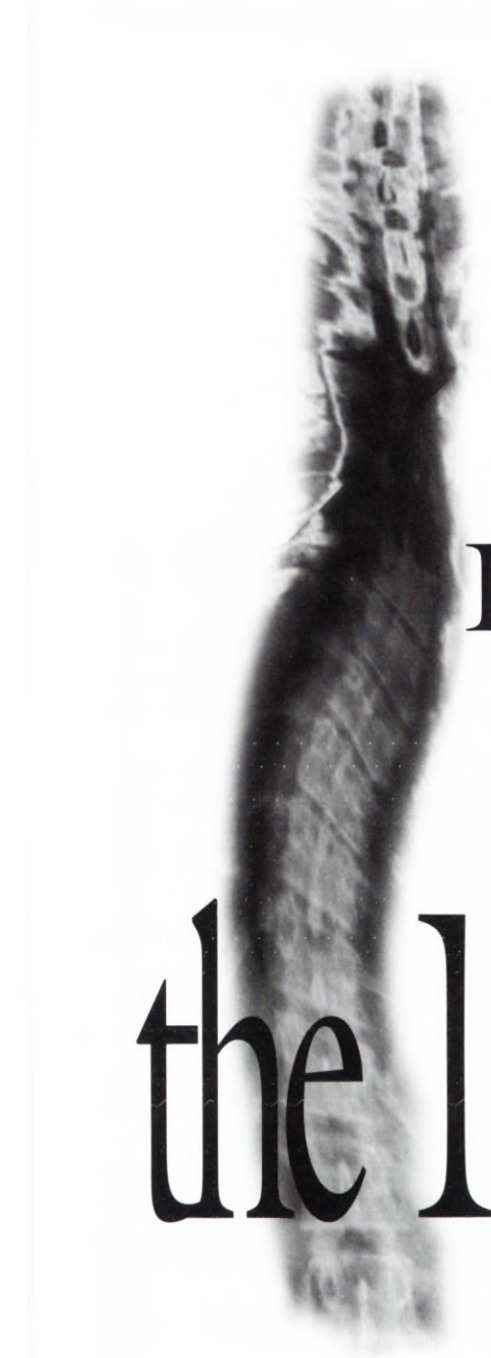

Impairment of the spine and the 10% threshold

The relevance of the AMA Guides to the Guidelines of the Motor Accident Authority (NSW) is considered here in relation to assessment of the spine.

In NSW, the right to compensation for non-economic loss, pain and suffering for victims of motor vehicle accidents is now restricted by the requirement that the injured party must first prove a permanent impairment of 10% or greater. The permanent impairment must be assessed according to the Impairment Assessment Guidelines of the Motor Accident Authority (NSW), (The NSW MAA Guidelines), which state, "The MAA Guidelines are definitive in the matters they address. Where they are silent in an issue, the AMA 4 Guides (the Guides to the Evaluation of Permanent Impairment of the American Medical Association, 4th Edition) should be followed."

The original concept of 'permanent impairment' is taken from the Guides to the Evaluation of Permanent Impairment of the American Medical Association. The concept of 'impairment' appears to have been devised to provide a standard framework and method for doctors to "assess health status". It is not a clinical tool. It is not used in clinical medicine. It has no practical application other than in ▶

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medico-legal assessment. 'Impairment' is defined as an alteration to a person's health status as measured by objective medical means. 'Impairment' is considered to be *permanent* when the condition is stable and unlikely to change in future months, with or without treatment.

Impairments for the most part relate to diseases (any departure from the normal state of health) and only occasionally to injuries, (which result from adverse contact with the external environment).

To evaluate impairment, an assessor should have the following:

- All treating and medico-legal doctors' notes and reports (G.P. and specialist), prior to and after the accident.
- Reports of all relevant investigations.

The NSW MAA Guidelines and The AMA 4 Guides

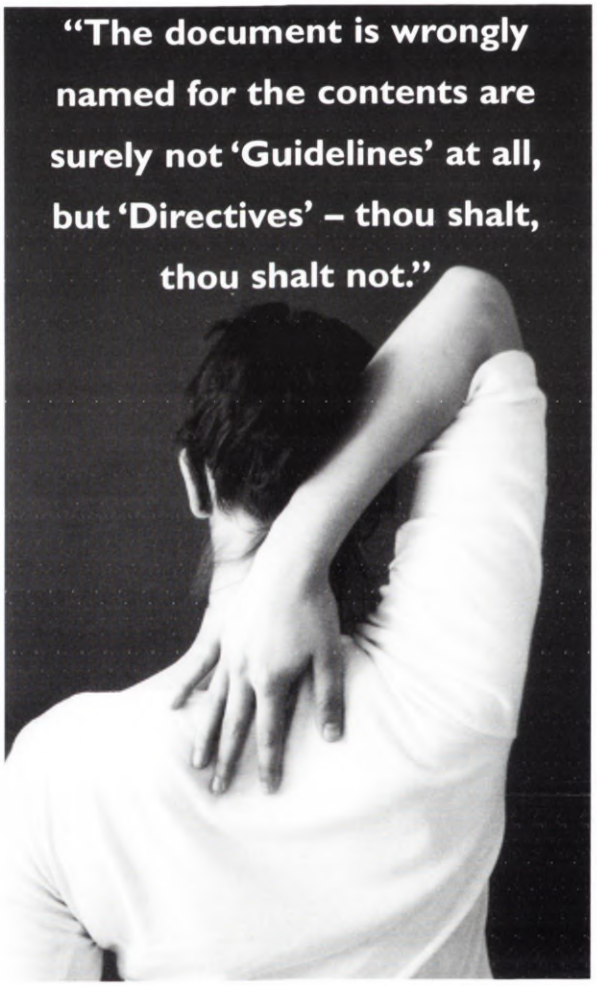
The NSW MAA Guides have made "significant changes to the AMA 4 Guides to better suit them to the purposes of the *Motor Accident Compensation Act* (1999) (the Act)." This quote is taken from the Explanatory Notes to the NSW MAA Guidelines and repeated in the Forward.

As impairment is a purely *medical* issue, the NSW MAA Guidelines should be independent of *the purposes of the Act*. Socially, scientifically and medically, the deliberations of the consortium of doctors and clinical reference groups advising the Motor Accident Authority should have been independent of the purposes of the Act, whatever those purposes may have been.

The NSW MAA Guidelines state that they are based on the AMA 4 Guides. In the evaluation of the spine, however, the application of the AMA 4 Guides has been curtailed and distorted. Impairments associated with commonly occurring back conditions and injuries are simply denied. The document is wrongly named for the contents are surely not 'Guidelines' at all, but 'Directives' – thou shalt, thou shalt not.

Impairment of the spine according to the AMA 4 Guides.

The assessment of impairment of the spine in the AMA 4 Guides differs from earlier editions. Two approaches are used, one called 'The Range of Motion Model' or 'Functional Model', inherited from the earlier editions and a new approach called 'The Injury or Diagnosis-related Estimates Model' (DRE). This is the preferred method. However, the AMA 4 Guides explicitly state, "If the physician cannot decide into which DRE category the patient belongs, the physician *may refer to and use the Range of Motion Model.*"



Impairment of the spine according to the NSW MAA Guidelines.

"The range of motion model (pp. 112 - 135, AMA 4 Guides) should not be used for the evaluation of spinal impairment."

– Section 4.18 of the NSW MAA Guidelines.

This directive strikes out Table 75, on page 113 of the AMA 4 Guides, which addresses, 'Whole-person Impairment Percents due to Specific Spine Disorders'.

The Disorders are:

- fractures, (which are assessable under the DRE Model)
- intervertebral disk or other soft-tissue lesions
- spondylolysis and spondylolisthesis, *not operated on*
- spinal stenosis, segmental instability, spondylolisthesis, fracture, or dislocation, *operated on*

As a result, an intervertebral disc prolapse, soft tissue lesions, surgery and the other conditions will be regarded as minor injuries in NSW, attracting a possible maximum 5% impairment.

Spondylolysis is the loosening of the normal stable attachment between one vertebra and the next, due to bony defects in the ring of bone which surrounds the spinal cord. It may result in spondylolisthesis, which is the forward displacement of one vertebra upon the vertebra below. Spondylolysis and spondylolisthesis can be due to trauma or to a congenital defect.

Under the AMA 4 Guides, spondylolysis and spondylolisthesis *per se* may attract an impairment of 3–12% according to circumstances. The NSW MAA Guidelines direct that spondylolysis and spondylolisthesis attract an impairment rating only if radiculopathy (disease or injury to the spinal cord or spinal nerve roots) assessed as prescribed in the NSW MAA Guidelines (see below) is present.

Intervertebral disk or other soft-tissue lesions, spinal stenosis, segmental instability, spondylolysis, spondylolisthesis, fracture or dislocation, *operated on*, do not attract an impairment. This effectively eliminates intervertebral disc prolapse as such, and surgery etc., as causes of impairment in NSW (but not in other jurisdictions). It is surely absurd that spinal surgery and the conditions leading to it are

considered not to result in an alteration to a person's health status.

Impairments relate to human beings, not to the place where a person resides, or the laws of that place, or the way medicine is practised in that place. Impairment is a scientific, universal, medical construction, independent of place, politics, insurance and government. Impairment ratings should be the same in the USA and Australia, and in Victoria and New South Wales. If impairment ratings are subject to the purposes of the *Motor Accident Compensation Act* (NSW), 1999, impairment has surely become a *political* rather than a *medical* tool.

The AMA 4 Guides are continuously evolving and while it may be that the variations in the ranges of spinal movement observed at different examinations will cause the Range of Motion Model to be modified or replaced, it is unlikely that the Specific Spine Disorders listed in Table 75 will be eliminated from them, as the MAA Guidelines advisors appear to have done.

The impact of the MAA directives

Mindful of the significance of the 10% impairment barrier to compensation for non-economic loss, I will attempt to summarise the impact of the MAA directives. The assessment of impairment of the spine is based solely on the AMA 4 Guides which divides the spine into 3 regions –

- Cervicothoracic (cervical and upper thoracic area)
- Thoracolumbar (lower thoracic and upper lumbar area)
- Lumbosacral (lower lumbar and sacral area)

The assessment model used in the AMA 4 Guides is "The Injury or Diagnosis-related Estimates Model". In this model, cases are assigned to one of eight categories:

1. Complaints and symptoms only, 0% impairment
2. Minor injury; clinical signs of injury are also present.

In the thoracolumbar spine, vertebral fracture with less than 25% compression, simple transverse or spinal process fracture, or undisplaced and stable fracture of the bony ring are specified as Category 2.

Category 2 attracts a maximum impairment of 5% of the whole person. Some whiplash injuries and lower back strains may qualify, depending on the duration and consistency of the clinical findings.

3. (a) Radiculopathy, (disease/injury to the spinal cord or spinal nerve roots) see below.
   (b) Vertebral fracture in the thoracolumbar spine with loss of more than 25% but less than 50% of vertebral height.
   (c) Ring fractures with displacement narrowing the spinal canal constitute category 3.

Category 3 attracts 10% Impairment of the whole person in the lumbosacral spine, 15% in the cervicothoracic and thoracolumbar spine. ▶

(a) Multilevel neurologic compromise
(b) Vertebral fracture with loss of more than 50% of vertebral height.
(c) Fractures of more than one vertebra.

Category 4 attracts 20% impairment of the whole person in the thoracolumbar and lumbosacral spine, and 25% impairment in the cervicothoracic spine.

Category 5 of the AMA Guides is applicable only for multiple vertebral fractures with residual motor compromise (MAA Guidelines 4.34) and severe upper extremity neurologic compromise.

Category 5 attracts 35% permanent impairment of the whole person in the cervicothoracic region and 25% permanent impairment of the thoracolumbar region.

6. Cauda Equina Syndrome. This must be objectively verified, result in at least partial loss of use of one or both lower limbs and necessitate use of a walking aid.

   Category 6 attracts 35% impairment in the thoracolumbar spine and 40% in the cervicothoracic and thoracolumbar spine.

7. Cauda Equina Syndrome with loss of bladder and/or bowel function.

   Category 7 attracts 55% impairment in the thoracolumbar spine, 60% in the cervicothoracic and lumbosacral spine.

8. Paraplegia

   Category 8 attracts 70% impairment in the thoracolumbar spine, 75% in the cervicothoracic and lumbosacral spine.

"Impairment ratings should be the same in the USA and Australia, and in Victoria and New South Wales."

Aggravation

'Aggravation' is not a medical term and has no meaning in the context of clinical medicine. It does not appear in medical dictionaries. It was defined for the first time in the AMA 4 Guides as a physical, chemical or biologic factor, which may or may not be work-related, contributing to the worsening of a pre-existing medical condition in such a way that the degree of permanent impairment increased by more than 3%.

The 10% threshold

The exclusion of intervertebral disc and soft tissue lesions as causes of impairment by the Committees advising the Motor Accident Authority means that the following conditions only will attract 10% or more Permanent Impairment:

- Serious fracture of the body of a vertebra (25-50% loss of vertebral height), fractures of more than one vertebra, and posterior element (ring) fractures *with displacement.*
- Radiculopathy
  If a patient has an intervertebral disc prolapse and sciatica which is relieved by surgery, he or she is assessed not to have an impairment according to the NSW MAA Guidelines unless there remain two or more of the following signs: -
- Loss or asymmetry of the deep tendon reflexes
- Muscle atrophy and/or decreased limb muscle circumference
  - Muscle weakness localised to a spinal nerve distribution
  - Reproducible sensory loss localised to a spinal nerve distribution.

  These fractures and radiculopathy are considered to be 10% impairment of the whole person in the lumbosacral region, but 15% in the cervicothoracic and thoracolumbar regions.
  - Cauda Equina Syndrome - 55% Permanent Impairment.
  - Paraplegia - 70% Permanent Impairment or more.

Conclusion

The directives contained in the NSW MAA Guidelines are discriminatory and effectively deny victims of accidents in NSW equality with assessments made in other jurisdictions. The directives of the NSW MAA Guidelines have not been validated. It appears that many victims of motor vehicle accidents in NSW who are disabled with back/spinal injuries will be assessed to have less than 10% permanent impairment of the whole person. Fairness requires that compensation should be related to disability, and not to artificial constructions such as 'impairment', or 'loss of efficient use compared to a most extreme case', which have no place in clinical medicine. PL