

Statement of Principles
concerning

ALZHEIMER-TYPE DEMENTIA

No. 22 of 2010

for the purposes of the

Veterans' Entitlements Act 1986
and

Military Rehabilitation and Compensation Act 2004

Title

1. This Instrument may be cited as Statement of Principles concerning Alzheimer-type dementia No. 22 of 2010.

Determination

2. The Repatriation Medical Authority under subsection **196B(2)** and **(8)** of the *Veterans' Entitlements Act 1986* (the VEA):
 - (a) revokes Instrument No. 17 of 2001 concerning Alzheimer's disease; and
 - (b) determines in its place this Statement of Principles.

Kind of injury, disease or death

3.
 - (a) This Statement of Principles is about **Alzheimer-type dementia** and **death from Alzheimer-type dementia**.
 - (b) For the purposes of this Statement of Principles, "**Alzheimer-type dementia**" means a central neurodegenerative disorder characterised histopathologically by diffuse atrophy throughout the cerebral cortex with senile plaques and neurofibrillary tangles; and meeting the following diagnostic criteria:
 - A. The development of multiple cognitive deficits manifested by:

- (1) memory impairment (impaired ability to learn new information or to recall previously learned information); and
 - (2) one (or more) of the following cognitive disturbances:
 - (i) aphasia (language disturbance);
 - (ii) apraxia (impaired ability to carry out motor activities despite intact motor function);
 - (iii) agnosia (failure to recognise or identify objects despite intact sensory function); or
 - (iv) disturbance in executive functioning (i.e., planning, organising, sequencing, abstracting).
- B. The cognitive deficits in Criteria A(1) and A(2) each cause significant impairment in social or occupational functioning and represent a significant decline from a previous level of functioning.
- C. The course is characterised by gradual onset and continuing cognitive decline.
- D. The cognitive deficits in Criteria A(1) and A(2) are not primarily due to any of the following:
 - (1) other central nervous system conditions that cause progressive deficits in memory and cognition (e.g., cerebrovascular disease, Parkinson's disease, Huntington's disease, subdural haematoma, normal-pressure hydrocephalus, brain tumour);
 - (2) systemic conditions that are known to cause non-Alzheimer-type dementia (e.g., hypothyroidism, vitamin B12 or folic acid deficiency, niacin deficiency, hypercalcaemia, neurosyphilis, HIV infection); or
 - (3) substance-induced conditions.
- E. The deficits do not occur exclusively during the course of a delirium.
- F. This definition includes dementia with Lewy bodies.

Basis for determining the factors

4. The Repatriation Medical Authority is of the view that there is sound medical-scientific evidence that indicates that **Alzheimer-type dementia** and **death from Alzheimer-type dementia** can be related to relevant service rendered by veterans, members of Peacekeeping Forces, or members of the Forces under the VEA, or members under the *Military Rehabilitation and Compensation Act 2004* (the MRCA).

Factors that must be related to service

5. Subject to clause 7, at least one of the factors set out in clause 6 must be related to the relevant service rendered by the person.

Factors

6. The factor that must as a minimum exist before it can be said that a reasonable hypothesis has been raised connecting **Alzheimer-type dementia** or **death from Alzheimer-type dementia** with the circumstances of a person's relevant service is:
 - (a) having moderate to severe cerebral trauma at least 10 years before the clinical onset of Alzheimer-type dementia; or
 - (b) smoking at least 20 pack-years of cigarettes, or the equivalent thereof in other tobacco products, before the clinical onset of Alzheimer-type dementia and where smoking has ceased, the clinical onset of Alzheimer-type dementia has occurred within five years of cessation; or
 - (c) being exposed to at least two microtesla (2 μ T) of extremely low frequency electromagnetic field (ELF-EMF), for at least eight hours per day on more days than not, for a continuous period of at least 10 years before the clinical onset of Alzheimer-type dementia; or
 - (d) having dyslipidaemia before the age of 65 years and at least 10 years before the clinical onset of Alzheimer-type dementia; or
 - (e) having diabetes mellitus at least 10 years before the clinical onset of Alzheimer-type dementia; or
 - (f) being obese for at least 10 years before the clinical onset of Alzheimer-type dementia; or
 - (g) having hypertension at least 10 years before the clinical onset of Alzheimer-type dementia; or

- (h) having hyperhomocysteinaemia at least 10 years before the clinical onset of Alzheimer-type dementia; or
- (i) having a thyroid disorder as specified at least 10 years before the clinical onset of Alzheimer-type dementia; or
- (j) having at least two major depressive episodes at least 10 years before the clinical onset of Alzheimer-type dementia; or
- (k) inability to obtain appropriate clinical management for Alzheimer-type dementia.

Factors that apply only to material contribution or aggravation

- 7. Paragraph 6(k) applies only to material contribution to, or aggravation of, Alzheimer-type dementia where the person's Alzheimer-type dementia was suffered or contracted before or during (but not arising out of) the person's relevant service.

Inclusion of Statements of Principles

- 8. In this Statement of Principles if a relevant factor applies and that factor includes an injury or disease in respect of which there is a Statement of Principles then the factors in that last mentioned Statement of Principles apply in accordance with the terms of that Statement of Principles as in force from time to time.

Other definitions

- 9. For the purposes of this Statement of Principles:

"a thyroid disorder as specified" means:

- (a) a thyroid stimulating hormone level of at least 5.0 milliunits per litre (mU/L);
- (b) a thyroid stimulating hormone level of less than 0.5 mU/L; or
- (c) serum thyroid peroxidase antibody levels of at least 10 international units per millilitre (IU/ml);

"being obese" means an increase in body weight by way of fat accumulation which results in a Body Mass Index (BMI) of 30 or greater.

The $BMI = W/H^2$ and where:

W is the person's weight in kilograms and
H is the person's height in metres;

"death from Alzheimer-type dementia" in relation to a person includes death from a terminal event or condition that was contributed to by the person's Alzheimer-type dementia;

"dyslipidaemia" generally means evidence of a persistently abnormal lipid profile after the accurate evaluation of serum lipids following a 12 hour overnight fast, and estimated on a minimum of two occasions as a:

- (a) total serum cholesterol level greater than or equal to 5.5 millimoles per litre (mmol/L);
- (b) serum triglyceride level greater than or equal to 2.0 mmol/L; or
- (c) having a high density lipoprotein cholesterol level less than 1.0 mmol/L;

"extremely low frequency electromagnetic field (ELF-EMF)" means electromagnetic fields generated at a frequency of 3-3000 hertz (Hz);

"hyperhomocysteinaemia" means a condition characterised by an excess of homocysteine in the blood;

"moderate to severe cerebral trauma" means structural injury or physiological disruption of brain function as a result of external force, manifested by at least one of the following clinical features immediately following the event:

- (a) loss of consciousness lasting at least 30 minutes or posttraumatic anterograde amnesia lasting at least 24 hours;
- (b) leakage of cerebrospinal fluid;
- (c) injury involving penetration of the dura mater;
- (d) seizures;
- (e) intracranial abnormality, including:
 - (i) intracranial haemorrhage;
 - (ii) intracranial haematoma;
 - (iii) cerebral contusion;
 - (iv) hydrocephaly; or
 - (v) diffuse axonal injury; or
- (f) a Glasgow Coma Scale score of 12 or less.

In this definition, external force includes blunt trauma; acceleration or deceleration forces; blast force; or a foreign body penetrating the brain;

"pack-years of cigarettes, or the equivalent thereof in other tobacco products" means a calculation of consumption where one pack-year of cigarettes equals twenty tailor made cigarettes per day for a period of one calendar year, or 7300 cigarettes. One tailor made cigarette approximates one gram of tobacco or one gram of cigar or pipe tobacco by weight. One pack-year of tailor made cigarettes equates to 7300

cigarettes, or 7.3 kg of smoking tobacco by weight. Tobacco products means either cigarettes, pipe tobacco or cigars smoked, alone or in any combination;

"relevant service" means:

- (a) operational service under the VEA;
- (b) peacekeeping service under the VEA;
- (c) hazardous service under the VEA;
- (d) warlike service under the MRCA; or
- (e) non-warlike service under the MRCA;

"terminal event" means the proximate or ultimate cause of death and includes:

- (a) pneumonia;
- (b) respiratory failure;
- (c) cardiac arrest;
- (d) circulatory failure; or
- (e) cessation of brain function.

Application

- 10. This Instrument applies to all matters to which section 120A of the VEA or section 338 of the MRCA applies.

Date of effect

- 11. This Instrument takes effect from 12 May 2010.

Dated this *twenty-second* day of *April* 2010.

The Common Seal of the)
Repatriation Medical Authority)
was affixed to this instrument)
in the presence of:)

KEN DONALD
CHAIRPERSON