

Statement of Principles
concerning

CEREBROVASCULAR ACCIDENT

No. 51 of 2006

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 cerebrovascular accident No. 51 of 2006.

Determination

2. The Repatriation Medical Authority under subsection **196B(2)** and **(8)** of the *Veterans' Entitlements Act 1986* (the VEA):
 - (a) revokes Instrument No. 52 of 1999 as amended by Instrument No. 30 of 2002 and Instrument No. 57 of 2003, concerning cerebrovascular accident; and
 - (b) determines in its place this Statement of Principles.

Kind of injury, disease or death

3.
 - (a) This Statement of Principles is about **cerebrovascular accident** and **death from cerebrovascular accident**.
 - (b) For the purposes of this Statement of Principles, "**cerebrovascular accident**" means cerebral ischaemia or intracerebral haemorrhage presenting as a transient ischaemic attack or stroke.
 - (c) Cerebrovascular accident attracts ICD-10-AM code I61, I63, G45.0, G45.1, G45.2, G45.8, or G45.9.

- (d) In the application of this Statement of Principles, the definition of "**cerebrovascular accident**" is that given at paragraph 3(b) above.

Basis for determining the factors

4. The Repatriation Medical Authority is of the view that there is sound medical-scientific evidence that indicates that **cerebrovascular accident** and **death from cerebrovascular accident** 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 **cerebrovascular accident** or **death from cerebrovascular accident** with the circumstances of a person's relevant service is:
- (a) having hypertension at the time of the clinical onset of cerebrovascular accident; or
 - (b) an inability to undertake any physical activity greater than three METs for at least the five years before the clinical onset of cerebrovascular accident; or
 - (c) experiencing a category 1A stressor within the one year before the clinical onset of cerebrovascular accident; or
 - (d) having panic disorder at the time of the clinical onset of cerebrovascular accident; or
 - (e) having depressive disorder within the 90 days before the clinical onset of cerebrovascular accident; or
 - (f) drinking an average of at least 250 grams of alcohol per week, for at least the one year before the clinical onset of cerebrovascular accident; or
 - (g) having cerebral infection at the time of the clinical onset of cerebrovascular accident; or

- (h) having vasculitis affecting the cerebral arteries at the time of the clinical onset of cerebrovascular accident; or
- (i) having a disease of the cerebral vessels from the specified list at the time of the clinical onset of cerebrovascular accident; or
- (j) being pregnant, undergoing childbirth, or being within the puerperal period at the time of the clinical onset of cerebrovascular accident; or
- (k) using a drug from the specified list within the 72 hours before the clinical onset of cerebrovascular accident; or
- (l) being treated with multiple serotonergic drugs, simultaneously or within the recommended washout period of one of these drugs, or taking an overdose of an individual serotonergic drug, within the 24 hours before the clinical onset of cerebrovascular accident; or
- (m) having exertional heat stroke at the time of the clinical onset of cerebrovascular accident; or
- (n) being envenomated by a snake, scorpion, box jellyfish, bee or wasp within the 24 hours before the clinical onset of cerebrovascular accident; or
- (o) for cerebral ischaemia only,
 - (i) where smoking has not ceased before the clinical onset of cerebrovascular accident
 - (A) smoking an average of at least five cigarettes per day or the equivalent thereof in other tobacco products, for at least the one year before the clinical onset of cerebrovascular accident; or
 - (B) smoking at least one pack year of cigarettes or the equivalent thereof in other tobacco products, before the clinical onset of cerebrovascular accident; or
 - (ii) where smoking has ceased before the clinical onset of cerebrovascular accident:
 - (A) having smoked an average of at least five cigarettes per day or the equivalent thereof in other tobacco products, for at least five years before the clinical onset of cerebrovascular accident, and the clinical onset of cerebrovascular accident has occurred within ten years of cessation; or

- (B) having smoked an average of at least twenty cigarettes per day or the equivalent thereof in other tobacco products, for at least five years before the clinical onset of cerebrovascular accident; or
- (iii) being in an atmosphere with a visible tobacco smoke haze in an enclosed space for at least 5000 hours, before the clinical onset of cerebrovascular accident, where the last exposure to that atmosphere did not end more than five years before the clinical onset of cerebrovascular accident; or
- (iv) having diabetes mellitus at the time of the clinical onset of cerebrovascular accident; or
- (v) having dyslipidaemia before the clinical onset of cerebrovascular accident; or
- (vi) using a drug belonging to the nonsteroidal anti-inflammatory class of drugs, excluding aspirin, on at least 22 days per month for a continuous period of at least two months before the clinical onset of cerebrovascular accident, where the last dose of the drug was taken within the three days before the clinical onset of cerebrovascular accident; or
- (vii) being treated with intravenous immunoglobulin within the 72 hours before the clinical onset of cerebrovascular accident; or
- (viii) ingesting a combined oral contraceptive pill for a continuous period of at least the 21 days before the clinical onset of cerebrovascular accident; or
- (ix) for postmenopausal females only, having hormone replacement therapy for a period of at least the 21 days before the clinical onset of cerebrovascular accident; or
- (x) being treated with tamoxifen for a continuous period of at least the 21 days before the clinical onset of cerebrovascular accident; or
- (xi) having a potential source of cerebral embolus at the time of the clinical onset of cerebrovascular accident; or
- (xii) having disease of the precerebral artery supplying the area of cerebral ischaemia at the time of the clinical onset of cerebrovascular accident; or
- (xiii) having cerebral vasospasm at the time of the clinical onset of cerebrovascular accident; or

- (xiv) having a haematological disorder from the specified list of haematological disorders that are associated with a hypercoagulable state at the time of the clinical onset of cerebrovascular accident; or
 - (xv) experiencing an acute hypotensive episode within the 24 hours before the clinical onset of cerebrovascular accident; or
 - (xvi) having sleep apnoea at the time of the clinical onset of cerebrovascular accident; or
 - (xvii) undergoing a course of therapeutic radiation to the head or neck before the clinical onset of cerebrovascular accident; or
 - (xviii) having hyperhomocysteinaemia before the clinical onset of cerebrovascular accident; or
 - (xix) having nephrotic syndrome at the time of the clinical onset of cerebrovascular accident; or
 - (xx) having trauma to the neck or the base of the skull within the one year before the clinical onset of cerebrovascular accident; or
 - (xxi) having obstruction of a vertebral artery, common carotid artery, internal carotid artery or a cerebral artery, due to pressure from an extra-arterial source at the time of the clinical onset of cerebrovascular accident; or
- (p) for intracerebral haemorrhage only,
- (i) smoking an average of at least fifteen cigarettes per day or the equivalent thereof in other tobacco products, for at least the one year before the clinical onset of cerebrovascular accident; or
 - (ii) undergoing anticoagulant therapy at the time of the clinical onset of cerebrovascular accident; or
 - (iii) taking aspirin on at least three days per week for a continuous period of at least four weeks and the last dose of aspirin was taken within the seven days before the clinical onset of cerebrovascular accident; or
 - (iv) undergoing thrombolytic therapy at the time of the clinical onset of cerebrovascular accident; or
 - (v) having a haematological disorder from the specified list of haematological disorders that are associated with an excessive bleeding tendency, at the time of the clinical onset of cerebrovascular accident; or

- (vi) bleeding of an intracerebral space occupying lesion at the time of the clinical onset of cerebrovascular accident; or
 - (vii) having a head injury within the 28 days before the clinical onset of cerebrovascular accident; or
 - (viii) having intracranial surgery within the seven days before the clinical onset of cerebrovascular accident; or
 - (ix) bleeding from a cerebral aneurysm or a cerebral vascular malformation at the time of the clinical onset of cerebrovascular accident; or
 - (x) having an acute hypertensive episode at the time of the clinical onset of cerebrovascular accident; or
 - (xi) ingesting tyramine-rich food or being treated with sympathomimetic drugs or agents containing tyramine, while being treated with a monoamine oxidase inhibitor, or within six weeks of cessation of treatment with a monoamine oxidase inhibitor, within the 24 hours before the clinical onset of cerebrovascular accident; or
- (q) inability to obtain appropriate clinical management for cerebrovascular accident.

Factors that apply only to material contribution or aggravation

7. Paragraph 6(q) applies only to material contribution to, or aggravation of, cerebrovascular accident where the person's cerebrovascular accident 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 category 1A stressor" means one of the following severe traumatic events:

- (a) experiencing a life-threatening event;
- (b) being subject to a serious physical attack or assault including rape and sexual molestation; or
- (c) being threatened with a weapon, being held captive, being kidnapped, or being tortured;

"a course of therapeutic radiation" means one or more fractions (treatment portions) of ionising radiation administered with the aim of achieving palliation or cure with gamma rays, x-rays, alpha particles or beta particles;

"a disease of the cerebral vessels from the specified list" means:

- (a) amyloid angiopathy;
- (b) cerebral venous thrombosis;
- (c) intravascular lymphomatosis;
- (d) Moyamoya disease/syndrome; or
- (e) Sneddon's syndrome;

"a drug from the specified list" means:

- (a) amphetamines and amphetamine-like compounds, including dextroamphetamine, methamphetamine, methylphenidate (Ritalin), ephedrine, pseudoephedrine, phenylpropanolamine, phentermine, phendimetrazine, and 3,4-methylenedioxymethamphetamine (ecstasy); or
- (b) cocaine; or
- (c) D-lysergic acid diethylamide (LSD); or
- (d) heroin; or
- (e) marijuana; or
- (f) phencyclidine (angel dust);

"a haematological disorder from the specified list of haematological disorders that are associated with a hypercoagulable state" means:

- (a) antiphospholipid antibody syndrome; or
- (b) disseminated intravascular coagulation; or
- (c) heparin-induced thrombocytopenia and thrombosis; or
- (d) hyperproteinaemia; or
- (e) hyperviscosity syndrome; or

- (f) inherited coagulation protein disorders associated with hypercoagulability; or
- (g) myeloproliferative disease; or
- (h) primary or secondary polycythaemia; or
- (i) primary or secondary thrombocytosis; or
- (j) sickle cell disease or sickle cell trait; or
- (k) thrombotic thrombocytopenic purpura;

"a haematological disorder from the specified list of haematological disorders that are associated with an excessive bleeding tendency" means:

- (a) aplastic anaemia; or
- (b) bleeding disorder secondary to snake bite; or
- (c) bleeding disorder secondary to Vitamin K deficiency; or
- (d) disseminated intravascular coagulation; or
- (e) essential thrombocythaemia; or
- (f) inherited coagulation protein disorders associated with excessive bleeding tendency; or
- (g) leukaemia; or
- (h) plasma cell dyscrasias; or
- (i) posttransfusion purpura; or
- (j) qualitative platelet defects associated with coagulation defect; or
- (k) severe liver disease; or
- (l) sickle cell disease; or
- (m) thrombocytopenia; or
- (n) thrombotic thrombocytopenic purpura;

"a potential source of cerebral embolus" means the presence of at least one of the following:

- (a) acute myocardial infarction; or
- (b) any of the following causes of cerebral arterial embolism:
 - (i) cardiac hydatid cysts; or
 - (ii) decompression sickness; or
 - (iii) foreign body penetration into an artery within the head, neck or chest; or
 - (iv) primary or secondary cardiac tumours; or
 - (v) primary or secondary lung tumours; or
 - (vi) pulmonary barotrauma; or
 - (vii) severe bone trauma; or
- (c) any of the following means of paradoxical embolism:
 - (i) atrial septal defect; or
 - (ii) patent foramen ovale; or
 - (iii) pulmonary arteriovenous fistula; or
 - (iv) ventricular septal defect; or
- (d) any of the following mitral or aortic valve disorders:

- (i) calcification; or
- (ii) Lambl's excrescences; or
- (iii) mitral valve prolapse; or
- (iv) prosthetic valve; or
- (v) regurgitation; or
- (vi) stenosis; or
- (vii) valvulitis; or
- (e) any of the following procedures within the seven days before the clinical onset of cerebral ischaemia:
 - (i) cardiac surgery or cardiac catheterisation; or
 - (ii) catheterisation of or injection into the arteries supplying the affected area of the brain; or
 - (iii) orthopaedic surgery; or
 - (iv) surgery involving the arteries supplying the affected area of the brain; or
 - (v) surgery or medical procedures involving the pulmonary veins; or
- (f) atrial fibrillation (intermittent or sustained); or
- (g) cardiomyopathy; or
- (h) infective or non-infective (marantic) endocarditis; or
- (i) left atrial aneurysm or dilatation; or
- (j) left ventricular aneurysm; or
- (k) left ventricular dyskinesia; or
- (l) sick sinus syndrome; or
- (m) thrombus formation within the pulmonary vein, left atrium, left ventricle or arteries supplying the affected area of the brain;

"alcohol" is measured by the alcohol consumption calculations utilising the Australian Standard of ten grams of alcohol per standard alcoholic drink;

"an acute hypertensive episode" means a sudden and severe increase in blood pressure of a sufficient degree to cause damage to cerebral blood vessels;

"an acute hypotensive episode" means a sudden drop in blood pressure of a sufficient degree to cause cerebral hypoperfusion;

"anticoagulant therapy" means therapeutic administration of a pharmacological agent which suppresses, delays or nullifies blood coagulation (such as heparin, warfarin or dicumarol), but excludes antiplatelet therapy (such as aspirin, clopidogrel, ticlopidine or monoclonal antibodies and recombinant and chemically synthesised peptides that block platelet adhesion or aggregation);

"cerebral infection" means:

- (a) cerebral abscess; or
- (b) cerebral helminthic infection (cysticercosis, schistosomiasis, sparganosis); or
- (c) cerebral protozoal infection (malaria); or
- (d) encephalitis; or
- (e) intracerebral fungal infection (aspergillosis or mucormycosis); or
- (f) meningitis;

"cerebral ischaemia" means a reduction or interruption of blood supply to an area of the brain;

"cigarettes per day or the equivalent thereof in other tobacco products" means either cigarettes, pipe tobacco or cigars, alone or in any combination where one tailor made cigarette approximates one gram of tobacco; or one gram of cigar, pipe or other smoking tobacco;

"death from cerebrovascular accident" in relation to a person includes death from a terminal event or condition that was contributed to by the person's cerebrovascular accident;

"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 mmol/L; or
- (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;

"exertional heat stroke" means life-threatening central nervous system and multiple organ dysfunction from complications of hyperthermia which may manifest suddenly during extreme physical exertion in a hot environment;

"head injury" means a blunt or penetrating wound of the head which results directly from the impact of a blow to the head, or indirectly from acceleration or deceleration forces applied to the head, and which causes:

- (a) cerebral laceration, contusion, or other intracranial injury;
- (b) closed or open fracture of the skull; or
- (c) concussion, loss of consciousness, or post-traumatic amnesia;

"hormone replacement therapy" means administration of oestrogen preparations often in combination with progesterone to offset a hormone deficiency following surgically induced or naturally occurring menopause;

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

"ICD-10-AM code" means a number assigned to a particular kind of injury or disease in The International Statistical Classification of Diseases and Related Health Problems, 10th revision, Australian Modification (ICD-10-AM), Fifth Edition, effective date of 1 July 2006, copyrighted by the National Centre for Classification in Health, Sydney, NSW, and having ISBN 1 86487 772 3;

"intracerebral haemorrhage" means bleeding within the cerebrum, brain stem or cerebellum;

"intracerebral space occupying lesion" means one of the following entities occupying a delimited area within the brain:

- (a) abscess;
- (b) cyst;
- (c) neoplasm; or
- (d) tuberculoma;

"intravascular lymphomatosis" means a type of non-Hodgkin's lymphoma characterized by intravascular proliferation of neoplastic lymphoid cells;

"MET" means a unit of measurement of the level of physical exertion. 1 MET = 3.5 ml of oxygen/kg of body weight per minute or, 1.0 kcal/kg of body weight per hour, or resting metabolic rate;

"nephrotic syndrome" means a kidney disease characterised by massive proteinuria with varying degrees of oedema, hypoalbuminaemia, lipiduria and hyperlipidaemia;

"pack year 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;

"precerebral artery" means extracerebral arteries supplying the brain, including the carotid artery, vertebral artery, basilar artery and ascending aorta;

"puerperal period" means the 42 days following a birth;

"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;

"thrombolytic therapy" means therapeutic administration of a pharmacological agent in order to dissolve a thrombus, retard fibrin deposition on established thrombi or prevent the formation of new thrombi, (and includes agents such as streptokinase, urokinase, tissue plasminogen activator, pro-urokinase, acyl-SK-plasminogen, anistreplase, alteplase, defibrotide, duteplase, lanoteplase, monteplase, nasaruplase, saruplase, staphylokinase or reteplase);

"trauma to the neck or the base of the skull" means:

- (a) a non-penetrating injury, involving extension, rotation, hyperflexion or compression of the neck;
- (b) a penetrating injury to the neck or the base of the skull; or
- (c) an injury resulting in fracture or dislocation of the cervical spine.

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 8 November 2006.

Dated this *thirtieth* day of *October* 2006

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

KEN DONALD
CHAIRPERSON