



Australian Government
Repatriation Medical Authority

Statement of Principles
concerning

RETINAL VASCULAR OCCLUSIVE DISEASE

No. 83 of 2011

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 retinal vascular occlusive disease No. 83 of 2011.

Determination

2. The Repatriation Medical Authority under subsection **196B(2)** and **(8)** of the *Veterans' Entitlements Act 1986* (the VEA):
 - (a) revokes Instrument No. 33 of 2006 concerning retinal vascular occlusive 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 **retinal vascular occlusive disease and death from retinal vascular occlusive disease**.
 - (b) For the purposes of this Statement of Principles, "**retinal vascular occlusive disease**" means obstruction to blood flow in the retinal artery or its branches or obstruction to blood flow in the retinal vein or its tributaries, leading to impaired vision.
 - (c) Retinal vascular occlusive disease attracts ICD-10-AM code H34.

- (d) In the application of this Statement of Principles, the definition of "**retinal vascular occlusive disease**" 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 **retinal vascular occlusive disease** and **death from retinal vascular occlusive disease** 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 **retinal vascular occlusive disease** or **death from retinal vascular occlusive disease** with the circumstances of a person's relevant service is:
- (a) smoking at least 15 pack-years of cigarettes, or the equivalent thereof in other tobacco products, before the clinical onset of retinal vascular occlusive disease, and where smoking has ceased, the clinical onset has occurred within 30 years of cessation; or
 - (b) having hypertension at the time of the clinical onset of retinal vascular occlusive disease; or
 - (c) having diabetes mellitus at the time of the clinical onset of retinal vascular occlusive disease; or
 - (d) having dyslipidaemia before the clinical onset of retinal vascular occlusive disease; or
 - (e) having hyperhomocysteinaemia at the time of the clinical onset of retinal vascular occlusive disease; or
 - (f) using a drug from the specified list within the 72 hours before the clinical onset of retinal vascular occlusive disease; or
 - (g) 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 retinal vascular occlusive disease, where the last dose of the drug was taken within the

three days before the clinical onset of retinal vascular occlusive disease;
or

- (h) being obese for at least five years before the clinical onset of retinal vascular occlusive disease; or
- (i) having trauma, including surgical trauma, to the affected eye or the blood vessels supplying or draining the affected eye, within the seven days before the clinical onset of retinal vascular occlusive disease, and in the case of prolonged unconsciousness associated with such trauma, the seven day period is taken to commence upon regaining consciousness; or
- (j) having antiphospholipid antibody syndrome at the time of the clinical onset of retinal vascular occlusive disease; or
- (k) being infected with human immunodeficiency virus at the time of the clinical onset of retinal vascular occlusive disease; or
- (l) for retinal vein occlusion only,
 - (i) having open-angle glaucoma, angle-closure glaucoma or ocular hypertension at the time of the clinical onset of retinal vascular occlusive disease; or
 - (ii) being at least five percent dehydrated at the time of the clinical onset of retinal vascular occlusive disease; or
 - (iii) having paroxysmal nocturnal haemoglobinuria at the time of the clinical onset of retinal vascular occlusive disease; or
- (m) for retinal arterial occlusion only,
 - (i) having a potential source of embolus to the eye at the time of the clinical onset of retinal vascular occlusive disease; or
 - (ii) having giant cell arteritis, polyarteritis nodosa or Takayasu's arteritis at the time of the clinical onset of retinal vascular occlusive disease; or
 - (iii) having ipsilateral carotid arterial disease at the time of the clinical onset of retinal vascular occlusive disease; or
- (n) ingesting a combined oral contraceptive pill for a continuous period of at least 21 days within the one year before the clinical onset of retinal vascular occlusive disease; or
- (o) 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 retinal vascular occlusive disease; or

- (p) having vasculitis of the retinal artery or retinal vein or their branches at the time of the clinical onset of retinal vascular occlusive disease; or
- (q) having microscopic polyangiitis at the time of the clinical onset of retinal vascular occlusive disease; or
- (r) having thromboangiitis obliterans (Buerger's disease) at the time of the clinical onset of retinal vascular occlusive disease; or
- (s) having systemic lupus erythematosus at the time of the clinical onset of retinal vascular occlusive disease; or
- (t) having a disease from the specified list affecting the cerebral or retinal vessels at the time of the clinical onset of retinal vascular occlusive disease; or
- (u) having migraine at the time of the clinical onset of retinal vascular occlusive disease; or
- (v) having ocular or orbital infection of the affected eye at the time of the clinical onset of retinal vascular occlusive disease; or
- (w) having a lesion of the tissues within the orbit, a lesion of the optic nerve or a lesion within the eye, causing compression of a retinal vessel of the affected eye at the time of the clinical onset of retinal vascular occlusive disease; or
- (x) having an ipsilateral neoplasm infiltrating the optic nerve or within the eye at the time of the clinical onset of retinal vascular occlusive disease; or
- (y) having a vascular abnormality of the retinal vessels of the affected eye, such as aneurysm, arterio-venous malformation or angioma, at the time of the clinical onset of retinal vascular occlusive disease; or
- (z) experiencing an acute hypotensive episode within the 24 hours before the clinical onset of retinal vascular occlusive disease; or
- (aa) having prolonged external pressure to the eyeball within the 24 hours before the clinical onset of retinal vascular occlusive disease; or
- (bb) inability to obtain appropriate clinical management for retinal vascular occlusive disease.

Factors that apply only to material contribution or aggravation

7. Paragraph **6(bb)** applies only to material contribution to, or aggravation of, retinal vascular occlusive disease where the person's retinal vascular occlusive disease 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 disease from the specified list" means:

- (a) fibromuscular dysplasia;
- (b) intravascular lymphomatosis;
- (c) Moyamoya disease/syndrome;
- (d) radiation injury; 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);
- (b) cocaine;
- (c) D-lysergic acid diethylamide (LSD);
- (d) ergot compounds including ergometrine and ergotamine;
- (e) heroin;
- (f) marijuana; or
- (g) phencyclidine (angel dust);

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

- (a) activated protein C resistance, protein C deficiency, protein S deficiency or antithrombin III deficiency;
- (b) disseminated intravascular coagulation;
- (c) heparin-induced thrombocytopenia and thrombosis;
- (d) hyperproteinaemia such as Waldenstrom's macroglobulinaemia, multiple myeloma or cryoglobulinaemia;
- (e) hyperviscosity syndrome such as secondary to leukaemia or lymphoma;
- (f) myeloproliferative disease;

- (g) primary or secondary polycythaemia;
- (h) primary or secondary thrombocytosis;
- (i) sickle cell disease or sickle cell trait; or
- (j) thrombotic thrombocytopenic purpura;

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

- (a) acute myocardial infarction;
- (b) any of the following causes of arterial embolism to the eye:
 - (i) bone fracture;
 - (ii) cardiac hydatid cysts;
 - (iii) decompression sickness;
 - (iv) foreign body penetration into an artery within the head, neck or chest;
 - (v) intravenous amniotic fluid;
 - (vi) intravenous talc;
 - (vii) primary or secondary cardiac tumours;
 - (viii) primary or secondary lung tumours; or
 - (ix) pulmonary barotrauma;
- (c) any of the following means of paradoxical embolism:
 - (i) atrial septal defect;
 - (ii) patent foramen ovale;
 - (iii) pulmonary arteriovenous fistula; or
 - (iv) ventricular septal defect;
- (d) any of the following mitral or aortic valve disorders:
 - (i) calcification;
 - (ii) Lambl's excrescences;
 - (iii) mitral valve prolapse;
 - (iv) prosthetic valve;
 - (v) regurgitation;
 - (vi) stenosis; or
 - (vii) valvulitis;
- (e) any of the following procedures within the seven days before the clinical onset of retinal arterial occlusion:
 - (i) cardiac surgery or cardiac catheterisation;
 - (ii) catheterisation of or injection into the arteries supplying the retina;
 - (iii) orthopaedic surgery;
 - (iv) surgery involving the arteries supplying the retina; or
 - (v) surgery or medical procedures involving the pulmonary veins;
- (f) atrial fibrillation (intermittent or sustained);
- (g) cardiomyopathy;
- (h) infective or non-infective (marantic) endocarditis;
- (i) left atrial aneurysm or dilatation;
- (j) left ventricular aneurysm;
- (k) left ventricular dyskinesia;
- (l) sick sinus syndrome; or

- (m) thrombus formation within the pulmonary vein, left atrium, left ventricle or arteries supplying the retina;

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

"antiphospholipid antibody syndrome" means the presence of antiphospholipid antibodies or lupus anticoagulant antibodies, plus one or more of the following clinical manifestations:

- (a) arterial thrombosis;
- (b) foetal loss;
- (c) thrombocytopenia; or
- (d) venous thrombosis;

"being obese" means an increase in body weight by way of fat accumulation which results in a Body Mass Index (BMI) of thirty 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 retinal vascular occlusive disease" in relation to a person includes death from a terminal event or condition that was contributed to by the person's retinal vascular occlusive disease;

"dehydrated" means deficient in body water, such as could occur after strenuous physical activity, vomiting, diarrhoea or febrile illness, without adequate rehydration;

"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;

"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), Seventh Edition, effective date of 1 July 2010, copyrighted by the National Centre for Classification in Health, Sydney, NSW, and having ISBN 978 1 74210 154 5;

"ocular hypertension" means intra-ocular pressure greater than 21 mm Hg, without evidence of optic atrophy or visual field loss;

"ocular or orbital infection" means having an infection of the eye or the tissues of the orbit, excluding isolated conjunctivitis;

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

"paroxysmal nocturnal haemoglobinuria" means a chronic acquired blood cell dysplasia in which there is proliferation of a clone of stem cells producing erythrocytes, platelets and granulocytes that are abnormally susceptible to lysis by complement. It is characterised by the presence of free haemoglobin in the urine, intravascular haemolysis and venous thrombosis;

"prolonged external pressure to the eyeball" means direct pressure on the eyeball of at least ten minutes duration. Examples in which this may occur include spinal or neurological surgery in the prone position using a headrest or eye goggles, regional anaesthesia to the orbit with injection of local anaesthetic of large volume or at high speed, or use of a compressive device to the eyeball;

"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;

"trauma, including surgical trauma" means blunt trauma of sufficient force to deform the antero-posterior axis of the globe and to disrupt the intima of relevant blood vessels, or a penetrating eye injury, including such injury arising from a surgical procedure.

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 13 July 2011.

Dated this *first* day of *July* 2011

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

KEN DONALD
CHAIRPERSON