



Australian Government
Repatriation Medical Authority

Statement of Principles concerning

ATRIAL FIBRILLATION AND ATRIAL FLUTTER

No. 49 of 2014

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 atrial fibrillation and atrial flutter No. 49 of 2014.

Determination

2. The Repatriation Medical Authority under subsection **196B(2)** and **(8)** of the *Veterans' Entitlements Act 1986* (the VEA):
 - (a) revokes Instrument No. 19 of 2003 concerning atrial fibrillation and Instrument No. 71 of 2002 concerning atrial flutter; and
 - (b) determines in their place this Statement of Principles.

Kind of injury, disease or death

3.
 - (a) This Statement of Principles is about **atrial fibrillation and atrial flutter** and **death from atrial fibrillation and atrial flutter**.
 - (b) For the purposes of this Statement of Principles:

"atrial fibrillation" means a paroxysmal, persistent or permanent cardiac arrhythmia, in which normal and regular electrical impulses generated by the sinoatrial node are overwhelmed by disorganised, rapid, and irregular atrial activation, leading to irregular conduction of

impulses to the ventricles, and an irregular ventricular rate and rhythm;
and

"atrial flutter" means a macroreentrant arrhythmia arising from a rapid electrical circuit in the atrial myocardium, with a regular atrial rate typically exceeding 240 beats per minute, and with a characteristic electrocardiographic appearance with a uniform and regular continuous sawtooth wave-form.

Atrial fibrillation and atrial flutter means atrial fibrillation or atrial flutter, either alone or in combination.

- (c) Atrial fibrillation and atrial flutter attracts ICD-10-AM code I48.
- (d) In the application of this Statement of Principles, the definition of **"atrial fibrillation and atrial flutter"** 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 **atrial fibrillation or atrial flutter** and **death from atrial fibrillation or atrial flutter** 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 **atrial fibrillation or atrial flutter** or **death from atrial fibrillation or atrial flutter** with the circumstances of a person's relevant service is:
 - (a) having valvular heart disease at the time of the clinical onset of atrial fibrillation or atrial flutter; or
 - (b) having ischaemic heart disease at the time of the clinical onset of atrial fibrillation or atrial flutter; or
 - (c) having myocarditis within the one month before the clinical onset of atrial fibrillation or atrial flutter; or
 - (d) having cardiomyopathy at the time of the clinical onset of atrial fibrillation or atrial flutter; or
 - (e) having familial hypertrophic cardiomyopathy at the time of the clinical onset of atrial fibrillation or atrial flutter; or
 - (f) having cardiac failure at the time of the clinical onset of atrial fibrillation or atrial flutter; or

- (g) having hypertension at the time of the clinical onset of atrial fibrillation or atrial flutter; or
- (h) having pericarditis within the one month before the clinical onset of atrial fibrillation or atrial flutter; or
- (i) having hyperthyroidism, thyrotoxicosis, Graves' disease or thyrotoxic goitre at the time of the clinical onset of atrial fibrillation or atrial flutter; or
- (j) having subclinical hyperthyroidism at the time of the clinical onset of atrial fibrillation or atrial flutter; or
- (k) consuming an average of at least 140 grams of alcohol per week for a continuous period of at least the five years before the clinical onset of atrial fibrillation or atrial flutter; or
- (l) having cardiac or thoracic surgery within the three months before the clinical onset of atrial fibrillation or atrial flutter; or
- (m) having a surgical procedure involving general or regional anaesthesia, other than cardiac or thoracic surgery, and which requires hospitalisation, within the one month before the clinical onset of atrial fibrillation or atrial flutter; or
- (n) having chronic obstructive pulmonary disease at the time of the clinical onset of atrial fibrillation or atrial flutter; or
- (o) undertaking strenuous, high level, endurance physical activity greater than six METs, for an average of at least 20 hours per week for a continuous period of at least five years before the clinical onset of atrial fibrillation or atrial flutter, and where strenuous physical activity has ceased, the clinical onset of atrial fibrillation or atrial flutter has occurred within 20 years of cessation; or
- (p) having sick sinus syndrome at the time of the clinical onset of atrial fibrillation or atrial flutter; or
- (q) having a benign or malignant neoplasm involving the cardiac atrium at the time of the clinical onset of atrial fibrillation or atrial flutter; or
- (r) having a non-neoplastic mass lesion involving the cardiac atrium at the time of the clinical onset of atrial fibrillation or atrial flutter; or
- (s) having diabetes mellitus for a continuous period of at least the five years before the clinical onset of atrial fibrillation or atrial flutter; or
- (t) experiencing penetrating trauma to the heart, excluding surgical trauma, within the two years before the clinical onset of atrial fibrillation or atrial flutter; or
- (u) experiencing a powerful, non-penetrating blow to the chest, resulting in injury warranting medical attention, within the one month before the clinical onset of atrial fibrillation or atrial flutter; or

- (v) having a spinal cord injury with quadriplegia and symptoms of autonomic dysreflexia within the two years before the clinical onset of atrial fibrillation or atrial flutter; or
- (w) having an injury or illness requiring admission to an intensive care unit or mechanical ventilation within the one month before the clinical onset of atrial fibrillation or atrial flutter; or
- (x) having a specified autoimmune or inflammatory disease involving the atria of the heart at the time of the clinical onset of atrial fibrillation or atrial flutter; or
- (y) being obese for a continuous period of at least three years within the ten years before the clinical onset of atrial fibrillation or atrial flutter; or
- (z) binge drinking within the seven days before the clinical onset of atrial fibrillation or atrial flutter; or
- (aa) having obstructive sleep apnoea within the five years before the clinical onset of atrial fibrillation or atrial flutter; or
- (bb) smoking at least three pack-years of cigarettes, or the equivalent thereof in other tobacco products, before the clinical onset of atrial fibrillation or atrial flutter, and where smoking has ceased, the clinical onset of atrial fibrillation or atrial flutter has occurred within one year of cessation; or
- (cc) having gastro-oesophageal reflux disease at the time of the clinical onset of atrial fibrillation or atrial flutter; or
- (dd) having chronic renal disease requiring renal transplantation or dialysis at the time of the clinical onset of atrial fibrillation or atrial flutter; or
- (ee) having valvular heart disease at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (ff) having ischaemic heart disease at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (gg) having myocarditis within the one month before the clinical worsening of atrial fibrillation or atrial flutter; or
- (hh) having cardiomyopathy at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (ii) having cardiac failure at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (jj) having hypertension at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (kk) having pericarditis within the one month before the clinical worsening of atrial fibrillation or atrial flutter; or
- (ll) having hyperthyroidism, thyrotoxicosis, Graves' disease or thyrotoxic goitre at the time of the clinical worsening of atrial fibrillation or atrial flutter; or

- (mm) having subclinical hyperthyroidism at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (nn) consuming an average of at least 140 grams of alcohol per week for a continuous period of at least the five years before the clinical worsening of atrial fibrillation or atrial flutter; or
- (oo) having cardiac or thoracic surgery within the three months before the clinical worsening of atrial fibrillation or atrial flutter; or
- (pp) having a surgical procedure involving general or regional anaesthesia, other than cardiac or thoracic surgery, and which requires hospitalisation, within the one month before the clinical worsening of atrial fibrillation or atrial flutter; or
- (qq) having chronic obstructive pulmonary disease at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (rr) having sick sinus syndrome at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (ss) having a benign or malignant neoplasm involving the cardiac atrium at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (tt) having a non-neoplastic mass lesion involving the cardiac atrium at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (uu) having diabetes mellitus for a continuous period of at least the five years before the clinical worsening of atrial fibrillation or atrial flutter; or
- (vv) experiencing penetrating trauma to the heart, excluding surgical trauma, within the two years before the clinical worsening of atrial fibrillation or atrial flutter; or
- (ww) experiencing a powerful, non-penetrating blow to the chest, resulting in injury warranting medical attention, within the one month before the clinical worsening of atrial fibrillation or atrial flutter; or
- (xx) having a spinal cord injury with quadriplegia and symptoms of autonomic dysreflexia within the two years before the clinical worsening of atrial fibrillation or atrial flutter; or
- (yy) having an injury or illness requiring admission to an intensive care unit or mechanical ventilation within the four weeks before the clinical worsening of atrial fibrillation or atrial flutter; or
- (zz) having a specified autoimmune or inflammatory disease involving the atria of the heart at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (aaa) being obese for a continuous period of at least three years within the ten years before the clinical worsening of atrial fibrillation or atrial flutter; or

- (bbb) having obstructive sleep apnoea within the five years before the clinical worsening of atrial fibrillation or atrial flutter; or
- (ccc) smoking at least three pack-years of cigarettes, or the equivalent thereof in other tobacco products, before the clinical worsening of atrial fibrillation or atrial flutter, and where smoking has ceased, the clinical worsening of atrial fibrillation or atrial flutter has occurred within one year of cessation; or
- (ddd) having gastro-oesophageal reflux disease at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (eee) having chronic renal disease requiring renal transplantation or dialysis at the time of the clinical worsening of atrial fibrillation or atrial flutter; or
- (fff) inability to obtain appropriate clinical management for atrial fibrillation or atrial flutter.

Factors that apply only to material contribution or aggravation

7. Paragraphs **6(ee) to 6(fff)** apply only to material contribution to, or aggravation of, atrial fibrillation or atrial flutter where the person's atrial fibrillation or atrial flutter 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 specified autoimmune or inflammatory disease" means:

- (a) amyloidosis;
- (b) rheumatoid arthritis;
- (c) sarcoidosis;
- (d) scleroderma;
- (e) systemic lupus erythematosus; or
- (f) systemic sclerosis;

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

"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;

"binge drinking" means drinking an excessive amount of alcohol in a short amount of time, resulting in a blood alcohol concentration exceeding 0.08. This typically involves the consumption of four or more standard alcoholic drinks for a woman or five or more standard alcoholic drinks for a man within a two hour time period;

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

"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), Eighth Edition, effective date of 1 July 2013, copyrighted by the Independent Hospital Pricing Authority, and having ISBN 978-1-74128-213-9;

"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;

"pack-years of cigarettes, or the equivalent thereof in other tobacco products" means a calculation of consumption where one pack-year of cigarettes equals 20 tailor-made cigarettes per day for a period of one calendar year, or 7 300 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 7.3 kilograms of smoking tobacco by weight. Tobacco products mean 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) British nuclear test defence service under the VEA;
- (e) warlike service under the MRCA; or
- (f) non-warlike service under the MRCA;

"spinal cord injury" means an injury to the long tracts of the spinal cord resulting in permanent motor or sensory deficits below the level of the lesion;

"subclinical hyperthyroidism" means having normal free thyroxine (FT4) and total triiodothyronine (T3) levels in conjunction with a thyrotropin (TSH) level persistently below the normal range in the absence of factors known to suppress TSH;

"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;

