



Australian Government  
Repatriation Medical Authority

## Statement of Principles concerning

# GRAVES' DISEASE

## No. 33 of 2013

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 Graves' disease No. 33 of 2013.

### Determination

2. This Statement of Principles is determined by the Repatriation Medical Authority under subsection **196B(2)** of the *Veterans' Entitlements Act 1986* (the VEA).

### Kind of injury, disease or death

3.
  - (a) This Statement of Principles is about **Graves' disease** and **death from Graves' disease**.
  - (b) For the purposes of this Statement of Principles, "**Graves' disease**" means a chronic autoimmune disease of the thyroid gland, in which thyroid autoantibodies (thyroid-stimulating immunoglobulins) activate the thyroid stimulating hormone receptor, causing thyroid hyperplasia and stimulating excessive thyroid hormone synthesis and secretion. Typical presenting features include a diffuse goitre, hyperthyroidism, a characteristic ophthalmopathy and, less commonly, a characteristic dermopathy. This definition excludes acute thyroiditis, subacute thyroiditis, Hashimoto's thyroiditis, postpartum thyroiditis, non-autoimmune chronic thyroiditis and secondary hyperthyroidism.
  - (c) Graves' disease attracts ICD-10-AM code E05.0.

- (d) In the application of this Statement of Principles, the definition of "**Graves' 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 **Graves' disease** and **death from Graves' 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 **Graves' disease** or **death from Graves' disease** with the circumstances of a person's relevant service is:
- (a) having iodine excess from consuming foods, dietary supplements or medications with a high content of iodine, within the six months before the clinical onset of Graves' disease; or
  - (b) being treated with a drug or a drug from a class of drugs from the specified list for a continuous period of at least six weeks, within the two years before the clinical onset of Graves' disease; or
  - (c) undergoing a course of therapeutic radiation for cancer, where the thyroid gland was in the field of radiation, within the ten years before the clinical onset of Graves' disease; or
  - (d) having received a cumulative equivalent dose of at least ten sieverts of ionising radiation to the thyroid gland, within the ten years before the clinical onset of Graves' disease; or
  - (e) receiving radioactive iodine (<sup>131</sup>I) for the treatment of multinodular goitre within the ten years before the clinical onset of Graves' disease; or
  - (f) smoking at least three pack-years of cigarettes, or the equivalent thereof in other tobacco products, before the clinical onset of Graves' disease, and where smoking has ceased, the clinical onset of Graves' disease has occurred within ten years of cessation; or
  - (g) having iodine excess from consuming foods, dietary supplements or medications with a high content of iodine, within the six months before the clinical worsening of Graves' disease; or
  - (h) being treated with a drug or a drug from a class of drugs from the specified list for a continuous period of at least six weeks, within the two years before the clinical worsening of Graves' disease; or

- (i) being treated with amiodarone for a continuous period of at least six weeks, within the two years before the clinical worsening of Graves' disease; or
- (j) undergoing a course of therapeutic radiation for cancer, where the thyroid gland was in the field of radiation, within the ten years before the clinical worsening of Graves' disease; or
- (k) having received a cumulative equivalent dose of at least ten sieverts of ionising radiation to the thyroid gland, within the ten years before the clinical worsening of Graves' disease; or
- (l) receiving radioactive iodine (<sup>131</sup>I) for the treatment of multinodular goitre within the ten years before the clinical worsening of Graves' disease; or
- (m) smoking at least three pack-years of cigarettes, or the equivalent thereof in other tobacco products, before the clinical worsening of Graves' disease, and where smoking has ceased, the clinical worsening of Graves' disease has occurred within ten years of cessation; or
- (n) inability to obtain appropriate clinical management for Graves' disease.

**Factors that apply only to material contribution or aggravation**

7. Paragraphs **6(g) to 6(n)** apply only to material contribution to, or aggravation of, Graves' disease where the person's Graves' 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 drug or a drug from a class of drugs from the specified list"** means:

- (a) alemtuzumab (Campath-1H);
- (b) highly active antiretroviral therapy;
- (c) interferon alpha;
- (d) interleukin-2; or
- (e) ipilimumab;

**"cumulative equivalent dose"** means the total dose of ionising radiation received by the particular organ or tissue. The formula used to calculate the cumulative equivalent dose allows doses from multiple types of ionising radiation to be combined, by accounting for their differing biological effect. The unit of equivalent dose is the sievert. For the purposes of this Statement of

Principles, the calculation of cumulative equivalent dose excludes doses received from normal background radiation, but includes therapeutic radiation, diagnostic radiation, cosmic radiation at high altitude, radiation from occupation-related sources and radiation from nuclear explosions or accidents;

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

**"having iodine excess"** means having an average dietary intake of more than 1500 micrograms of iodine per day for a continuous period of three months, or having a urinary iodine excretion rate of greater than 800 micrograms per 24 hours;

**"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;

**"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 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 7.3 kilograms 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) British nuclear test defence service under the VEA;
- (e) warlike service under the MRCA; or
- (f) 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.

**Date of effect**

**10.** This Instrument takes effect from 8 May 2013.

Dated this *twenty-ninth* day of *April* 2013

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

PROFESSOR NICHOLAS SAUNDERS AO  
CHAIRPERSON