

Statement of Principles
concerning

ACUTE MYELOID LEUKAEMIA

No. 35 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 acute myeloid leukaemia No. 35 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. 169 of 1996; and
 - (b) determines in its place this Statement of Principles.

Kind of injury, disease or death

3.
 - (a) This Statement of Principles is about **acute myeloid leukaemia** and **death from acute myeloid leukaemia**.
 - (b) For the purposes of this Statement of Principles, “**acute myeloid leukaemia**” means a heterogeneous group of malignant neoplasms of haematopoietic cells characterised by a clonal proliferation of myeloid precursor cells, with 20% or more myeloblasts in bone marrow or blood. This definition includes acute promyelocytic leukaemia, acute myelomonocytic leukaemia, acute monoblastic and monocytic leukaemia, acute erythroid leukaemia, acute megakaryoblastic leukaemia, acute

basophilic leukaemia, acute panmyelosis with myelofibrosis, and myeloid sarcoma.

Basis for determining the factors

4. The Repatriation Medical Authority is of the view that there is sound medical-scientific evidence that indicates that **acute myeloid leukaemia** and **death from acute myeloid leukaemia** 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 **acute myeloid leukaemia** or **death from acute myeloid leukaemia** with the circumstances of a person's relevant service is:
 - (a) smoking at least 10 pack years of cigarettes, or the equivalent thereof in other tobacco products, before the clinical onset of acute myeloid leukaemia and where smoking has ceased, the clinical onset has occurred within ten years of cessation; or
 - (b) having myelodysplastic disorder immediately before the clinical onset of acute myeloid leukaemia; or
 - (c) undergoing a course of chemotherapy, where the course of chemotherapy commenced at least six months before the clinical onset of acute myeloid leukaemia and where that therapy has ceased, the clinical onset occurred within twenty years of cessation; or
 - (d) undergoing a course of therapeutic radiation, where the first exposure occurred at least one year before the clinical onset of acute myeloid leukaemia; or
 - (e) having received a cumulative equivalent dose of at least 0.01 Sievert of atomic radiation to the bone marrow, where this dose was accumulated at least one year before the clinical onset of acute myeloid leukaemia; or

- (f) having received thorium dioxide (Thorotrast) at least one year before the clinical onset of acute myeloid leukaemia; or
- (g) being exposed to benzene on at least 300 days within a continuous two year period before the clinical onset of acute myeloid leukaemia, where the first exposure occurred more than five years before the clinical onset of acute myeloid leukaemia; or
- (h) receiving greater than 20 ppm-years of cumulative exposure to benzene before the clinical onset of acute myeloid leukaemia, where the first exposure occurred more than five years before the clinical onset of acute myeloid leukaemia; or
- (i) inhaling, ingesting or having cutaneous contact with AVGAS or petroleum products containing benzene greater than 5% by volume on more days than not over a continuous period of at least three months, where the first exposure occurred at least five years before the clinical onset of acute myeloid leukaemia; or
- (j) being obese for a period of at least five years within the ten years before the clinical onset of acute myeloid leukaemia; or
- (k) inability to obtain appropriate clinical management for acute myeloid leukaemia.

Factors that apply only to material contribution or aggravation

- 7. Paragraph 6(k) applies only to material contribution to, or aggravation of, acute myeloid leukaemia where the person's acute myeloid leukaemia 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 course of chemotherapy” means treatment of a malignant or proliferative disorder with the regular systemic administration of:

- (a) an alkylating agent; or
- (b) a topoisomerase II inhibitor;

“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;

“atomic radiation” means ionising radiation excluding:

- (a) natural background radiation;
- (b) therapeutic radiation; and
- (c) radiation from diagnostic procedures;

“being exposed to benzene” means:

- (a) inhaling benzene vapour where such exposure occurs at an ambient 8-hour time-weighted average benzene concentration exceeding five parts per million;
- (b) having cutaneous contact with liquids containing benzene; or
- (c) ingesting liquids containing benzene;

“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;

“cumulative equivalent dose” means the total equivalent dose of radiation from all types of ionising radiation. It accounts for the differences in biological effectiveness of various types of radiation and allows doses from different radiations to be combined. Each component is calculated by multiplying the absorbed dose in a particular tissue or organ for a given type of radiation by the radiation weighting factor for that radiation. The unit of equivalent dose is the Sievert;

“death from acute myeloid leukaemia” in relation to a person includes death from a terminal event or condition that was contributed to by the person’s acute myeloid leukaemia;

“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;

“ppm-years” means parts per million multiplied by years of exposure;

“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;

“8-hour time-weighted average” means the averaging of different exposure levels to benzene during an average exposure period equivalent to eight hours.

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 30 August 2006.

Dated this *seventeenth* day of *August* 2006

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

KEN DONALD
CHAIRPERSON