



Australian Government
Repatriation Medical Authority

Statement of Principles
concerning
MYELOMA
(Reasonable Hypothesis)
(No. 95 of 2021)

The Repatriation Medical Authority determines the following Statement of Principles under subsection 196B(2) of the *Veterans' Entitlements Act 1986*.

Dated 20 August 2021

The Common Seal of the
Repatriation Medical Authority
was affixed to this instrument
at the direction of:

Professor Terence Campbell AM
Chairperson

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1 Name

This is the Statement of Principles concerning *myeloma (Reasonable Hypothesis)* (No. 95 of 2021).

2 Commencement

This instrument commences on 20 September 2021.

3 Authority

This instrument is made under subsection 196B(2) of the *Veterans' Entitlements Act 1986*.

4 Repeal

The Statement of Principles concerning myeloma No. 69 of 2012 (Federal Register of Legislation No. F2012L02081) made under subsections 196B(2) and (8) of the VEA is repealed.

5 Application

This instrument applies to a claim to which section 120A of the VEA or section 338 of the *Military Rehabilitation and Compensation Act 2004* applies.

6 Definitions

The terms defined in the Schedule 1 - Dictionary have the meaning given when used in this instrument.

7 Kind of injury, disease or death to which this Statement of Principles relates

- (1) This Statement of Principles is about myeloma and death from myeloma.

Meaning of myeloma

- (2) For the purposes of this Statement of Principles, myeloma:
- (a) means a malignant disease of plasma cells, in which a single line of plasma cells accumulates and produces a monoclonal immunoglobulin; and
 - (b) includes:
 - (i) extramedullary plasmacytoma;
 - (ii) multiple myeloma;
 - (iii) plasma cell leukaemia; and
 - (iv) solitary plasmacytoma of bone.

- (3) While myeloma attracts ICD-10-AM code C90, in applying this Statement of Principles the meaning of myeloma is that given in subsection (2).
- (4) For subsection (3), a reference to an ICD-10-AM code is a reference to the code assigned to a particular kind of injury or disease in *The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification* (ICD-10-AM), Tenth Edition, effective date of 1 July 2017, copyrighted by the Independent Hospital Pricing Authority, ISBN 978-1-76007-296-4.

Death from myeloma

- (5) For the purposes of this Statement of Principles, myeloma, in relation to a person, includes death from a terminal event or condition that was contributed to by the person's myeloma.

Note: *terminal event* is defined in the Schedule 1 - Dictionary.

8 Basis for determining the factors

The Repatriation Medical Authority is of the view that there is sound medical-scientific evidence that indicates that myeloma and death from myeloma 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 MRCA.

Note: *MRCA*, *relevant service* and *VEA* are defined in the Schedule 1 - Dictionary.

9 Factors that must exist

At least one of the following factors must as a minimum exist before it can be said that a reasonable hypothesis has been raised connecting myeloma or death from myeloma with the circumstances of a person's relevant service:

- (1) having received a cumulative equivalent dose of at least 0.1 sievert of ionising radiation to the bone marrow at least five years before the clinical onset of myeloma;

Note: *cumulative equivalent dose* is defined in the Schedule 1 - Dictionary.

- (2) inhaling, ingesting or having cutaneous contact with a chemical agent contaminated by 2,3,7,8-tetrachlorodibenzo-para-dioxin (TCDD):
 - (a) for a cumulative period of at least 1,000 hours, within a consecutive period of 10 years before the clinical onset of myeloma; and
 - (b) where the first exposure occurred at least 5 years before the clinical onset of myeloma;

Note: *inhaling, ingesting or having cutaneous contact with a chemical agent contaminated by 2,3,7,8-tetrachlorodibenzo-para-dioxin (TCDD)* is defined in the Schedule 1 - Dictionary.

- (3) being:
- (a) on land in Vietnam; or
 - (b) at sea in Vietnamese waters; or
 - (c) on board a vessel and consuming potable water supplied on that vessel, when the water supply had been produced by evaporative distillation of estuarine Vietnamese waters;

for a cumulative period of at least 30 days, at least 5 years before the clinical onset of myeloma;

Note: *being*:

(a) *on land in Vietnam*; or

(b) *at sea in Vietnamese waters, estuarine Vietnamese waters and potable water* are defined in the Schedule 1 - Dictionary.

- (4) having infection with human immunodeficiency virus at the time of the clinical onset of myeloma;
- (5) undergoing organ or tissue transplantation, excluding corneal transplant and autologous stem cell transplantation, before the clinical onset of myeloma;

Note: *organ or tissue transplantation* is defined in the Schedule 1 - Dictionary.

- (6) being exposed to benzene as specified:
- (a) for a cumulative total of at least 2,500 hours within a continuous period of 5 years before the clinical onset of myeloma; and
 - (b) where the first exposure in that period occurred at least 5 years before the clinical onset of myeloma;

Note: *being exposed to benzene as specified* is defined in the Schedule 1 - Dictionary.

- (7) receiving greater than 10 ppm-years of cumulative exposure to benzene before the clinical onset of myeloma, and where the first exposure occurred at least 5 years before the clinical onset of myeloma;

Note: *ppm-years* is defined in the Schedule 1 - Dictionary.

- (8) being overweight or obese for a continuous period of at least 5 years before the clinical onset of myeloma;

Note: *being overweight or obese* is defined in the Schedule 1 - Dictionary.

- (9) having an autoimmune disease from the specified list of autoimmune diseases at least 5 years before the clinical onset of myeloma;

Note: *specified list of autoimmune diseases* is defined in the Schedule 1 - Dictionary.

- (10) inability to obtain appropriate clinical management for myeloma.

10 Relationship to service

- (1) The existence in a person of any factor referred to in section 9, must be related to the relevant service rendered by the person.

- (2) The factor set out in subsection 9(10) applies only to material contribution to, or aggravation of, myeloma where the person's myeloma was suffered or contracted before or during (but did not arise out of) the person's relevant service.

11 Factors referring to an injury or disease covered by another Statement of Principles

In this Statement of Principles:

- (1) if a factor referred to in section 9 applies in relation to a person; and
- (2) that factor refers to an injury or disease in respect of which a Statement of Principles has been determined under subsection 196B(2) of the VEA;

then the factors in that Statement of Principles apply in accordance with the terms of that Statement of Principles as in force from time to time.

Schedule 1 - Dictionary

Note: See Section 6

1 Definitions

In this instrument:

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

being exposed to benzene as specified means:

- (a) having cutaneous contact with liquids containing benzene greater than 1% by volume; or
- (b) ingesting liquids containing benzene greater than 1% by volume; or
- (c) inhaling benzene vapour where such exposure occurs at an ambient 8-hour time-weighted average benzene concentration exceeding 5 parts per million.

Note: **8-hour time-weighted average** is also defined in the Schedule 1 - Dictionary.

being:

(a) on land in Vietnam; or

(b) at sea in Vietnamese waters;

means service in at least one of the areas and at the times described in Items 4 and 8 of Schedule 2 of the VEA.

Note: **VEA** is also defined in the Schedule 1 - Dictionary.

being overweight or obese means having a Body Mass Index (BMI) of 25 or greater.

Note: **BMI** is also defined in the Schedule 1 - Dictionary.

BMI means W/H^2 where:

- (a) W is the person's weight in kilograms; and
- (b) H is the person's height in metres.

cumulative equivalent dose means the total dose of ionising radiation received by the particular organ or tissue from external exposure, internal exposure or both, apart from normal background radiation exposure in Australia, calculated in accordance with the methodology set out in *Guide to calculation of 'cumulative equivalent dose' for the purpose of applying ionising radiation factors contained in Statements of Principles determined under Part XIA of the Veterans' Entitlements Act 1986 (Cth)*, Australian Radiation Protection and Nuclear Safety Agency, as in force on 2 August 2017.

Note 1: Examples of circumstances that might lead to exposure to ionising radiation include being present during or subsequent to the testing or use of nuclear weapons, undergoing diagnostic or therapeutic medical procedures involving ionising radiation, and being a member of an aircrew, leading to increased levels of exposure to cosmic radiation.

Note 2: For the purpose of dose reconstruction, dose is calculated as an average over the mass of a specific tissue or organ. If a tissue is exposed to multiple sources of ionising radiation, the various dose estimates for each type of radiation must be combined.

estuarine Vietnamese waters means at least one of the waterways or harbours in the relevant areas described in Items 4 and 8 of Schedule 2 of the VEA.

Note: *VEA* is also defined in the Schedule 1 - Dictionary.

inhaling, ingesting or having cutaneous contact with a chemical agent contaminated by 2,3,7,8-tetrachlorodibenzo-para-dioxin (TCDD) means:

- (a) decanting or spraying;
- (b) cleaning or maintaining equipment used to apply;
- (c) being sprayed with;
- (d) handling or sawing timber treated with;
- (e) being in an environment shrouded in dust from timber treated with; or
- (f) using cutting oils contaminated with;

one of the following chemicals:

- (i) 2,4,5-trichlorophenoxyacetic acid;
- (ii) 2,4,5-trichlorophenoxypropionic acid;
- (iii) 2,4,5-trichlorophenol;
- (iv) 2-(2,4,5-trichlorophenoxy)-ethyl 2,2-dichloropropioniate;
- (v) o,o-dimethyl-o-(2,4,5-trichlorophenyl)-phosphorothioate;
- (vi) pentachlorophenol;
- (vii) 2,3,4,6-tetrachlorophenol;
- (viii) 2,4,6-trichlorophenol;
- (ix) 1,3,5-trichloro-2-(4-nitrophenoxy)benzene;
- (x) 2,4-dichloro-1-(4-nitrophenoxy)benzene; or
- (xi) 2,4-dichloro-1-(3-methoxy-4-nitrophenoxy)-benzene.

MRCA means the *Military Rehabilitation and Compensation Act 2004*.

myeloma—see subsection 7(2).

organ or tissue transplantation means the transplantation of:

- (a) all or part of an organ or tissue; or
- (b) a substance obtained from an organ or tissue.

potable water means water used for drinking water, food preparation and beverage production.

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) British nuclear test defence service under the VEA;
- (e) warlike service under the MRCA; or
- (f) non-warlike service under the MRCA.

Note: *MRCA* and *VEA* are also defined in the Schedule 1 - Dictionary.

specified list of autoimmune diseases means:

- (a) ankylosing spondylitis;
- (b) pernicious anaemia;

- (c) rheumatoid arthritis; or
- (d) systemic lupus erythematosus.

terminal event means the proximate or ultimate cause of death and includes the following:

- (a) pneumonia;
- (b) respiratory failure;
- (c) cardiac arrest;
- (d) circulatory failure; or
- (e) cessation of brain function.

VEA means the *Veterans' Entitlements Act 1986*.