

Statement of Principles concerning TUBERCULOSIS (No. 81 of 2015)

The Repatriation Medical Authority determines the following Statement of Principles.

Dated 19 June 2015

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

Professor Nicholas Saunders AO Chairperson

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1 Name

This is the Statement of Principles concerning tuberculosis (No. 81 of 2015).

2 Commencement

This instrument commences on 20 July 2015.

3 Authority

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

4 Revocation

The Statement of Principles concerning tuberculosis No. 43 of 2007 made under subsection 196B(2) of the VEA is revoked.

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 tuberculosis and death from tuberculosis.

Meaning of tuberculosis

- (2) For the purposes of this Statement of Principles, tuberculosis:
 - (a) means an infection with one of a related group of bacteria belonging to the *Mycobacterium tuberculosis* complex, including *M. tuberculosis*, *M. africanum*, *M. canettii*, *M. bovis*, *M. caprae*, *M. microti*, *M. orygis*, *M. pinnipedi* and *M. bovis* BCG. Tuberculosis may be latent, primary or reactivated; and
 - (b) excludes infection with atypical mycobacteria such as *M. avium*, *M. intracellulare*, *M. kansasii*, *M. marinum* and *M. ulcerans*.

Death from tuberculosis

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

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 tuberculosis and death from tuberculosis 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: *relevant service* is 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 tuberculosis or death from tuberculosis with the circumstances of a person's relevant service:

 being exposed to bacteria belonging to the *Mycobacterium tuberculosis* complex at least 14 days before the clinical onset of tuberculosis;

Note: *being exposed to bacteria belonging to the Mycobacterium tuberculosis complex* is defined in the Schedule 1 - Dictionary.

(2) being exposed to overcrowded and poorly ventilated living or working conditions for a cumulative period of at least 700 hours within a three month period before the clinical onset of tuberculosis;

Note: *being exposed to overcrowded and poorly ventilated living or working conditions* is defined in the Schedule 1 - Dictionary.

- (3) living or working in an area which, at that time, has an incidence of tuberculosis of at least 50 cases per 100 000 of population per year, before the clinical onset of tuberculosis;
- (4) for tuberculosis due to infection with *Mycobacterium bovis* or *Mycobacterium caprae* only:
 - (a) consuming unpasteurised milk, unpasteurised dairy products or meat from an animal infected with the corresponding organism at least 14 days before the clinical onset of tuberculosis;
- (5) for active tuberculosis disease due to infection with *Mycobacterium bovis* BCG only:
 - (a) having intravesical BCG therapy for malignant neoplasm of the bladder; or
 - (b) being vaccinated with BCG vaccine;

before the clinical onset of tuberculosis;

Note: *active tuberculosis disease* and *BCG* are defined in the Schedule 1 - Dictionary.

(6) being in an immunocompromised state as specified at the time of the clinical onset of tuberculosis;

Note: *immunocompromised state as specified* is defined in the Schedule 1 - Dictionary.

(7) having a specified chronic disease at the time of the clinical onset of tuberculosis;

Note: *specified chronic disease* is defined in the Schedule 1 - Dictionary.

- (8) inhaling respirable crystalline silica dust in an enclosed space:
 - (a) for a cumulative period of at least 1 500 hours before the clinical onset of tuberculosis; and
 - (b) at the time material containing crystalline silica was being produced, excavated, drilled, cut or ground, or used in construction, manufacturing, cleaning or blasting;

before the clinical onset of tuberculosis;

- (9) inhaling respirable crystalline silica dust in an open environment:
 - (a) for a cumulative period of at least 3 000 hours before the clinical onset of tuberculosis; and
 - (b) at the time material containing crystalline silica was being produced, excavated, drilled, cut or ground, or used in construction, manufacturing, cleaning or blasting;

before the clinical onset of tuberculosis;

(10) smoking at least 2.5 pack-years of cigarettes, or the equivalent thereof in other tobacco products, within the ten years before the clinical onset of tuberculosis;

Note: *pack-years of cigarettes, or the equivalent thereof in other tobacco products* are defined in the Schedule 1 - Dictionary.

- (11) being in an atmosphere with a visible tobacco smoke haze in an enclosed space for at least 5 000 hours within the ten years before the clinical onset of tuberculosis;
- (12) for pulmonary tuberculosis only:
 - (a) smoking at least 2.5 pack-years of cigarettes, or the equivalent thereof in other tobacco products, before the clinical onset of tuberculosis; or

Note: *pack-years of cigarettes, or the equivalent thereof in other tobacco products* and *pulmonary tuberculosis* are defined in the Schedule 1 - Dictionary.

- (b) being in an atmosphere with a visible tobacco smoke haze in an enclosed space for at least 5 000 hours before the clinical onset of tuberculosis;
- (13) having a gastrectomy or jejunoileal bypass before the clinical onset of tuberculosis;

(14) inhaling at least 2 000 micrograms of beclomethasone, or equivalent inhaled glucocorticoid, daily, for at least the six months before the clinical onset of tuberculosis;

Note: equivalent inhaled glucocorticoid is defined in the Schedule 1 - Dictionary.

(15) consuming at least 30 kilograms of alcohol within the three years before the clinical onset of tuberculosis;

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

- (16) having alcohol use disorder before the clinical onset of tuberculosis;
- (17) being in an immunocompromised state as specified at the time of the clinical worsening of tuberculosis;

Note: *immunocompromised state as specified* is defined in the Schedule 1 - Dictionary.

(18) having a specified chronic disease at the time of the clinical worsening of tuberculosis;

Note: specified chronic disease is defined in the Schedule 1 - Dictionary.

- (19) inhaling respirable crystalline silica dust in an enclosed space:
 - (a) for a cumulative period of at least 1 500 hours before the clinical worsening of tuberculosis; and
 - (b) at the time material containing crystalline silica was being produced, excavated, drilled, cut or ground, or used in construction, manufacturing, cleaning or blasting;

before the clinical worsening of tuberculosis;

- (20) inhaling respirable crystalline silica dust in an open environment:
 - (a) for a cumulative period of at least 3 000 hours before the clinical worsening of tuberculosis; and
 - (b) at the time material containing crystalline silica was being produced, excavated, drilled, cut or ground, or used in construction, manufacturing, cleaning or blasting;

before the clinical worsening of tuberculosis;

(21) smoking at least 2.5 pack-years of cigarettes, or the equivalent thereof in other tobacco products, within the ten years before the clinical worsening of tuberculosis;

Note: *pack-years of cigarettes, or the equivalent thereof in other tobacco products* are defined in the Schedule 1 - Dictionary.

(22) being in an atmosphere with a visible tobacco smoke haze in an enclosed space for at least 5 000 hours within the ten years before the clinical worsening of tuberculosis;

- (23) for pulmonary tuberculosis only:
 - (a) smoking at least 2.5 pack-years of cigarettes, or the equivalent thereof in other tobacco products, before the clinical worsening of tuberculosis; or

Note: *pack-years of cigarettes, or the equivalent thereof in other tobacco products* and *pulmonary tuberculosis* are defined in the Schedule 1 - Dictionary.

- (b) being in an atmosphere with a visible tobacco smoke haze in an enclosed space for at least 5 000 hours before the clinical worsening of tuberculosis;
- (24) having a gastrectomy or jejunoileal bypass before the clinical worsening of tuberculosis;
- (25) inhaling at least 2 000 micrograms of beclomethasone, or equivalent inhaled glucocorticoid, daily, for at least the six months before the clinical worsening of tuberculosis;

Note: equivalent inhaled glucocorticoid is defined in the Schedule 1 - Dictionary.

(26) consuming at least 30 kilograms of alcohol within the three years before the clinical worsening of tuberculosis;

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

- (27) having alcohol use disorder before the clinical worsening of tuberculosis;
- (28) inability to obtain appropriate clinical management for tuberculosis.

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 factors set out in subsections 9(17) to 9(28) apply only to material contribution to, or aggravation of, tuberculosis where the person's tuberculosis 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:

active tuberculosis disease means an illness in which tuberculosis bacteria are multiplying and inducing an inflammatory response.

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

BCG means Bacille Calmette-Guérin.

being exposed to bacteria belonging to the Mycobacterium tuberculosis complex means:

- (a) inhaling droplet nuclei or aerosols contaminated with organisms belonging to the *Mycobacterium tuberculosis* complex;
- (b) having close exposure to a person or an animal with infectious tuberculosis;
- (c) being in the same household or immediate work environment as a person with infectious tuberculosis;
- (d) being involved in handling biological material infected with organisms belonging to the *Mycobacterium tuberculosis* complex; or
- (e) having a tissue or solid organ transplant which is infected with organisms belonging to the *Mycobacterium tuberculosis* complex.

Note: *biological material* and *infectious tuberculosis* are also defined in the Schedule 1 - Dictionary.

being exposed to overcrowded and poorly ventilated living or working conditions means living or working in close proximity to other people in a cramped or confined space with inadequate air circulation. This includes:

- (a) living as a prisoner of war;
- (b) travelling in a troop ship; or
- (c) working below ground in a mine.

being treated with an immunosuppressive drug means being treated with a drug or an agent which results in significant suppression of immune responses. This definition includes corticosteroids other than inhaled or topical corticosteroids, drugs used to prevent transplant rejection, tumour necrosis factor- α inhibitors and chemotherapeutic agents used for the treatment of cancer.

biological material means body tissues, body fluids, biopsy specimens, sputum or other pathological material.

Body Mass Index (BMI) means W/H² and where:

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

chronic renal failure means having a glomerular filtration rate of less than $60 \text{ mL/min}/1.73 \text{ m}^2$ for a period of at least three months, or the presence of irreversible kidney damage.

equivalent inhaled glucocorticoid means:

- (a) 8 000 micrograms of triamcinolone;
- (b) 1 600 micrograms of budesonide;
- (c) 1 000 micrograms of fluticasone; or
- (d) a therapeutically equivalent dose of another inhaled glucocorticoid.

immunocompromised state as specified means a condition of substantially lowered immune function, such as would occur in the following conditions or circumstances:

- (a) being infected with human immunodeficiency virus;
- (b) being treated with an immunosuppressive drug;
- (c) having a haematological or solid organ malignancy;
- (d) having chronic renal failure;
- (e) having severe malnutrition; or
- (f) undergoing solid organ, stem cell or bone marrow transplantation.

Note: *being treated with an immunosuppressive drug*, *chronic renal failure* and *severe malnutrition* are also defined in the Schedule 1 - Dictionary.

infectious tuberculosis means active tuberculosis of the respiratory tract, as confirmed by laboratory, radiological or epidemiological evidence. Such evidence includes being positive for tuberculosis organisms on sputum smear, sputum culture or bronchial washings, testing positive for tuberculosis-specific nucleic acid from sputum or bronchial washings, having chest x-ray abnormalities, or demonstrating transmission of the same organism to other contacts.

MRCA means the Military Rehabilitation and Compensation Act 2004.

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 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.

protein-calorie malnutrition means undernourishment due to inadequate intake, absorption or utilisation of protein or energy foods.

pulmonary tuberculosis means tuberculosis infection that occurs in the lung or respiratory tract.

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.

severe malnutrition means having protein-calorie malnutrition associated with a body mass index (BMI) less than or equal to 18.5 kg/m².

Note: *Body Mass Index (BMI)* and *protein-calorie malnutrition* are also defined in the Schedule 1 - Dictionary.

specified chronic disease means:

- (a) chronic obstructive pulmonary disease;
- (b) cirrhosis of the liver; or
- (c) diabetes mellitus.

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.

tuberculosis - see subsection 7(2).

VEA means the Veterans' Entitlements Act 1986.