



Australian Government
Repatriation Medical Authority

Statement of Principles
concerning
MALIGNANT NEOPLASM OF THE
OESOPHAGUS
(Balance of Probabilities)
(No. 121 of 2015)

The Repatriation Medical Authority determines the following Statement of Principles under subsection 196B(3) of the *Veterans' Entitlements Act 1986*.

Dated 16 October 2015

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

A handwritten signature in black ink, appearing to read 'Nicholas Saunders'.

Professor Nicholas Saunders AO
Chairperson

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1 Name

This is the Statement of Principles concerning *malignant neoplasm of the oesophagus (Balance of Probabilities)* (No. 121 of 2015).

2 Commencement

This instrument commences on 16 November 2015.

3 Authority

This instrument is made under subsection 196B(3) of the *Veterans' Entitlements Act 1986*.

4 Revocation

The Statement of Principles concerning malignant neoplasm of the oesophagus No. 42 of 2007, as amended, made under subsections 196B(3) and 196(8) of the VEA is revoked.

5 Application

This instrument applies to a claim to which section 120B of the VEA or section 339 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 malignant neoplasm of the oesophagus and death from malignant neoplasm of the oesophagus.

Meaning of malignant neoplasm of the oesophagus

- (2) For the purposes of this Statement of Principles, malignant neoplasm of the oesophagus means:
- (a) a primary malignant neoplasm arising from the cells of the oesophagus. The oesophagus is defined as the structure which begins proximally with the lower border of the hypopharynx and extends distally to the lower border of the oesophageal sphincter; and
 - (b) excludes soft tissue sarcoma, carcinoid tumour, non-Hodgkin's lymphoma and Hodgkin's lymphoma.

- (3) While malignant neoplasm of the oesophagus attracts ICD-10-AM code C15, in applying this Statement of Principles the meaning of malignant neoplasm of the oesophagus 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)*, Ninth Edition, effective date of 1 July 2015, copyrighted by the Independent Hospital Pricing Authority, ISBN 978-1-76007-020-5.

Death from malignant neoplasm of the oesophagus

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

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

8 Basis for determining the factors

On the sound medical-scientific evidence available, the Repatriation Medical Authority is of the view that it is more probable than not that malignant neoplasm of the oesophagus and death from malignant neoplasm of the oesophagus can be related to relevant service rendered by veterans 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 exist before it can be said that, on the balance of probabilities, malignant neoplasm of the oesophagus or death from malignant neoplasm of the oesophagus is connected with the circumstances of a person's relevant service:

- (1) smoking at least five pack-years of cigarettes, or the equivalent thereof in other tobacco products, before the clinical onset of malignant neoplasm of the oesophagus, and:
 - (a) smoking commenced at least ten years before the clinical onset of malignant neoplasm of the oesophagus; and
 - (b) where smoking has ceased, the clinical onset of malignant neoplasm of the oesophagus has occurred within 15 years of cessation;

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

- (2) the oral use of smokeless tobacco on more days than not, for at least ten years before the clinical onset of malignant neoplasm of the oesophagus, and where the oral use of smokeless tobacco has ceased, the clinical onset of malignant neoplasm of the oesophagus has occurred within ten years of cessation;

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

- (3) having received a cumulative equivalent dose of at least 0.5 sievert of ionising radiation to the oesophagus at least ten years before the clinical onset of malignant neoplasm of the oesophagus;

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

- (4) inhaling respirable asbestos fibres in an enclosed space:

- (a) for a cumulative period of at least 2 000 hours before the clinical onset of malignant neoplasm of the oesophagus; and
- (b) at the time material containing respirable asbestos fibres was being applied, removed, dislodged, cut or drilled; and
- (c) the first inhalation of respirable asbestos fibres commenced at least ten years before the clinical onset of malignant neoplasm of the oesophagus;

- (5) inhaling respirable asbestos fibres in an open environment:

- (a) for a cumulative period of at least 6 000 hours before the clinical onset of malignant neoplasm of the oesophagus; and
- (b) at the time material containing respirable asbestos fibres was being applied, removed, dislodged, cut or drilled; and
- (c) the first inhalation of respirable asbestos fibres commenced at least ten years before the clinical onset of malignant neoplasm of the oesophagus;

- (6) for squamous cell or undifferentiated carcinoma of the oesophagus only:

- (a) drinking at least 250 kilograms of alcohol before the clinical onset of malignant neoplasm of the oesophagus;
- (b) having a caustic burn of the oesophagus, at least ten years before the clinical onset of malignant neoplasm of the oesophagus;
- (c) having Plummer-Vinson syndrome at the time of the clinical onset of malignant neoplasm of the oesophagus;
- (d) drinking maté on more days than not for at least ten years before the clinical onset of malignant neoplasm of the oesophagus, and where drinking maté has ceased, the clinical onset of malignant neoplasm of the oesophagus has occurred within ten years of cessation; or
- (e) acquiring persistent infection of the epithelium of the oesophagus with a strain from the specified list of human

papilloma virus (HPV) strains before the clinical onset of malignant neoplasm of the oesophagus;

Note: *alcohol*, *Plummer-Vinson syndrome* and *specified list of human papilloma virus (HPV) strains* are defined in the Schedule 1 - Dictionary.

(7) for adenocarcinoma or undifferentiated carcinoma of the oesophagus only:

- (a) being obese for at least ten years within the 20 years before the clinical onset of malignant neoplasm of the oesophagus;
- (b) having Barrett's oesophagus before the clinical onset of malignant neoplasm of the oesophagus; or
- (c) having gastro-oesophageal reflux disease for at least the ten years before the clinical onset of malignant neoplasm of the oesophagus;

Note: *Barrett's oesophagus* and *being obese* are defined in the Schedule 1 - Dictionary.

(8) having achalasia at least five years before the clinical onset of malignant neoplasm of the oesophagus;

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

(9) having pernicious anaemia for at least the ten years before the clinical onset of malignant neoplasm of the oesophagus;

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

(10) chewing betel quid or areca nut on more days than not for at least ten years before the clinical onset of malignant neoplasm of the oesophagus, and where chewing betel quid or areca nut has ceased, the clinical onset of malignant neoplasm of the oesophagus has occurred within ten years of cessation;

(11) consuming an average daily intake of at least 100 grams per day of red meat, for at least ten years within the 25 years before the clinical onset of malignant neoplasm of the oesophagus;

(12) consuming an average daily intake of at least 25 grams per day of processed meat product, for at least ten years within the 25 years before the clinical onset of malignant neoplasm of the oesophagus;

Note: *processed meat product* is defined in the Schedule 1 - Dictionary.

(13) consuming hot beverages on more days than not for at least ten years before the clinical onset of malignant neoplasm of the oesophagus, and where consuming hot beverages has ceased, the clinical onset has occurred within ten years of cessation;

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

(14) inability to obtain appropriate clinical management for malignant neoplasm of the oesophagus.

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(14) applies only to material contribution to, or aggravation of, malignant neoplasm of the oesophagus where the person's malignant neoplasm of the oesophagus 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(3) 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:

achalasia means failure of the lower oesophageal sphincter to relax with swallowing, due to degeneration of ganglion cells in the oesophageal wall. The thoracic oesophagus also loses its normal peristaltic activity and becomes dilated.

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

Barrett's oesophagus means metaplasia of the epithelium of the lower oesophagus from the normal stratified squamous epithelium to abnormal columnar epithelium.

being obese means having a Body Mass Index (BMI) of 30 or greater.

$BMI = W/H^2$ 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 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.

hot beverages means beverages that are consumed at temperatures of at least 60 degrees Celsius.

malignant neoplasm of the oesophagus—see subsection 7(2).

MRCAs 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 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.

pernicious anaemia means a type of megaloblastic anaemia usually seen in older adults, involving impaired intestinal absorption of vitamin B12 due to lack of availability of intrinsic factor. It is characterised by pallor, achlorhydria, glossitis, gastric mucosal atrophy, weakness, antibodies against gastric parietal cells or intrinsic factor, and neurologic manifestations.

Plummer-Vinson syndrome means the triad of dysphagia, iron deficient anaemia, and oesophageal webs. It is also known as Paterson-Kelly syndrome and sideropenic dysphagia.

processed meat product means preserved or cured meats, including ham, frankfurters, salami and bacon.

relevant service means:

- (a) eligible war service (other than operational service) under the VEA;
- (b) defence service (other than hazardous service and British nuclear test defence service) under the VEA; or
- (c) peacetime service under the MRCA.

smokeless tobacco means tobacco products without combustion or pyrolysis at the time of use, including chewing tobacco and tobacco snuff.

specified list of human papilloma virus (HPV) strains means HPV type 6, 11, 16, 18, 30, 31 or 33.

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*.