



Australian Government
Repatriation Medical Authority

Statement of Principles
concerning

PERIPHERAL NEUROPATHY

No. 74 of 2014

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 peripheral neuropathy No. 74 of 2014.

Determination

2. The Repatriation Medical Authority under subsection **196B(2)** and **(8)** of the *Veterans' Entitlements Act 1986* (the VEA):
 - (a) revokes Instrument No. 41 of 2005 concerning peripheral neuropathy;
and
 - (b) determines in its place this Statement of Principles.

Kind of injury, disease or death

3.
 - (a) This Statement of Principles is about **peripheral neuropathy** and **death from peripheral neuropathy**.
 - (b) For the purposes of this Statement of Principles, "**peripheral neuropathy**" means an acquired acute, subacute or chronic disorder of the peripheral nervous system producing:
 - (i) symptoms; and
 - (ii) signs or electrodiagnostic evidence (electromyography or nerve conduction studies);of impaired motor, sensory or autonomic functioning.

This definition includes:

- (i) acquired peripheral autonomic neuropathy;
- (ii) diffuse symmetrical peripheral neuropathy (polyneuropathy);
and
- (iii) mononeuritis multiplex.

This definition excludes:

- (i) cranial mononeuropathies;
- (ii) Guillain-Barre syndrome;
- (iii) hereditary neuropathies;
- (iv) intercostal neuropathy;
- (v) isolated mononeuropathies of the upper and lower limbs;
- (vi) motor neurone disease (amyotrophic lateral sclerosis);
- (vii) nerve root disorder (radiculopathy) and plexus disorders (including brachial plexopathy and lumbosacral plexopathy);
and
- (viii) spinal cord disease (myelopathy, myelitis and cauda equina syndrome).

Basis for determining the factors

- 4. The Repatriation Medical Authority is of the view that there is sound medical-scientific evidence that indicates that **peripheral neuropathy** and **death from peripheral neuropathy** 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 **peripheral neuropathy** or **death from peripheral neuropathy** with the circumstances of a person's relevant service is:
 - (a) having a systemic disease from the specified list at the time of the clinical onset of peripheral neuropathy; or
 - (b) having severe alcohol use disorder at the time of the clinical onset of peripheral neuropathy; or
 - (c) consuming at least 350 kilograms of alcohol within the ten years before the clinical onset of peripheral neuropathy; or
 - (d) having a malignant neoplasm, other than non-melanotic malignant neoplasm of the skin, at the time of the clinical onset of peripheral neuropathy; or
 - (e) having a neurological paraneoplastic syndrome at the time of the clinical onset of peripheral neuropathy; or

- (f) having a haematological or lymphoproliferative disorder from the specified list at the time of the clinical onset of peripheral neuropathy; or
- (g) having a systemic vasculitis from the specified list at the time of the clinical onset of peripheral neuropathy; or
- (h) having an inflammatory connective tissue disease from the specified list at the time of the clinical onset of peripheral neuropathy; or
- (i) having a viral, bacterial or protozoal infection as specified at the time of the clinical onset of peripheral neuropathy; or
- (j) having a thermal burn or electrical injury within the 30 days before the clinical onset of peripheral neuropathy; or
- (k) having a critical illness as specified requiring mechanical ventilation support within the 30 days before the clinical onset of peripheral neuropathy; or
- (l) inhaling, ingesting or having cutaneous contact with a chemical from the specified list on at least 30 occasions within the six months before the clinical onset of peripheral neuropathy; or
- (m) inhaling, ingesting or having cutaneous contact with a volatile substance from the specified list, in an unventilated and confined space:
 - (i) on at least 30 occasions within a continuous period of six months before the clinical onset of peripheral neuropathy; and
 - (ii) where contact with a volatile substance from the specified list has ceased, the clinical onset of peripheral neuropathy has occurred within three months of cessation; or
- (n) having substance use disorder involving a substance from the specified list at the time of the clinical onset of peripheral neuropathy; or
- (o) inhaling, ingesting or having cutaneous contact with a chemical agent contaminated by 2,3,7,8-tetrachlorodibenzo-para-dioxin (TCDD) within the 30 days before the clinical onset of peripheral neuropathy; or
- (p) inhaling, ingesting or having cutaneous contact with a specified chemical within the 30 days before the clinical onset of peripheral neuropathy; or
- (q) having acute cholinergic poisoning from exposure to an organophosphorus ester or a carbamate pesticide within the six weeks before the clinical onset of peripheral neuropathy; or
- (r) being poisoned with an agent as specified within the 30 days before the clinical onset of peripheral neuropathy; or
- (s) having a nutritional deficiency as specified at the time of the clinical onset of peripheral neuropathy; or
- (t) having hypophosphataemia while undergoing total parenteral nutrition at the time of the clinical onset of peripheral neuropathy; or

- (u) being treated with a drug or a drug from a class of drugs from Specified List 1, for a condition for which the drug cannot be ceased or substituted, at the time of the clinical onset of peripheral neuropathy; or
- (v) being treated with a drug or a drug from a class of drugs from Specified List 2 at the time of the clinical onset of peripheral neuropathy; or
- (w) being treated with cisplatin within the six months before the clinical onset of peripheral neuropathy; or
- (x) having bariatric surgery before the clinical onset of peripheral neuropathy; or
- (y) having vitamin B6 (pyridoxine) hypervitaminosis at the time of the clinical onset of peripheral neuropathy; or
- (z) undergoing stem cell or bone marrow transplantation within the 12 months before the clinical onset of peripheral neuropathy; or
- (aa) having acute carbon monoxide poisoning, with a carboxyhaemoglobin level of over 20 percent, within the 30 days before the clinical onset of peripheral neuropathy; or
- (bb) inability to obtain appropriate clinical management for peripheral neuropathy.

Factors that apply only to material contribution or aggravation

7. Paragraph **6(bb)** applies only to material contribution to, or aggravation of, peripheral neuropathy where the person's peripheral neuropathy 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 chemical from the specified list" means:

- (a) acrylamide monomer;
- (b) dimethylaminopropionitrile;
- (c) ethylene oxide;
- (d) methyl bromide;
- (e) methylmethacrylate monomer; or
- (f) nitrous oxide;

"a critical illness as specified" means a clinical condition complicated by septicaemia, adult respiratory distress syndrome, acute renal tubular necrosis, diffuse intravascular coagulation or multiple organ failure;

"a drug or a drug from a class of drugs from Specified List 1" means:

- (a) 5-azacitidine;
- (b) 5-fluorouracil;
- (c) acitretin;
- (d) adalimumab;
- (e) allopurinol;
- (f) almitrine bismesylate;
- (g) Amphotericin B;
- (h) aurothioglucose;
- (i) chloramphenicol;
- (j) chloroquine;
- (k) chlorprothixene;
- (l) clioquinol;
- (m) clofibrate;
- (n) colchicine;
- (o) cyclosporin A;
- (p) cytosine arabinoside;
- (q) dapsone;
- (r) didanosine (ddI);
- (s) digoxin;
- (t) disopyramide;
- (u) eribulin mesylate;
- (v) etanercept;
- (w) ethambutol;
- (x) ethionamide;
- (y) etoposide;
- (z) gemcitabine;
- (aa) glutethimide;
- (bb) griseofulvin;
- (cc) hexamethylmelamine;
- (dd) hydralazine;
- (ee) hydroxychloroquine;
- (ff) infliximab;
- (gg) interferon alpha;
- (hh) ixabepilone;
- (ii) lamivudine (3TC);
- (jj) leflunomide;
- (kk) lenolidamide;
- (ll) lithium;
- (mm) mefloquine;
- (nn) misoprostol;
- (oo) nitrous oxide;
- (pp) penicillamine;
- (qq) perhexiline maleate;
- (rr) phenelzine;
- (ss) phenytoin;

- (tt) podophyllin;
- (uu) procarbazine;
- (vv) propafenone;
- (ww) stavudine (d4T);
- (xx) sulphasalazine;
- (yy) suramin;
- (zz) telbivudine;
- (aaa) teniposide;
- (bbb) tipifarnib (Zarnestra R115777);
- (ccc) voriconazole; or
- (ddd) zimeldine;

"a drug or a drug from a class of drugs from Specified List 2" means:

- (a) amiodarone;
- (b) bortezomib;
- (c) dichloroacetate;
- (d) disulfiram;
- (e) fluoroquinolone antibiotics, excluding topical formulations;
- (f) ifosfamide;
- (g) isoniazid;
- (h) itraconazole;
- (i) linezolid;
- (j) methotrexate;
- (k) metronidazole;
- (l) misonidazole;
- (m) nitrofurantoin;
- (n) platinum compounds;
- (o) statins;
- (p) tacrolimus;
- (q) taxanes;
- (r) thalidomide;
- (s) vinca alkaloids; or
- (t) zalcitabine (ddC);

"a haematological or lymphoproliferative disorder from the specified list" means:

- (a) acute lymphoblastic leukaemia;
- (b) acute myeloid leukaemia;
- (c) chronic lymphocytic leukaemia/small lymphocytic lymphoma;
- (d) chronic myeloid leukaemia;
- (e) Hodgkin's lymphoma;
- (f) monoclonal gammopathy;
- (g) myeloma;
- (h) non-Hodgkin's lymphoma;
- (i) polycythaemia vera; or
- (j) Waldenström's macroglobulinaemia;

"a neurological paraneoplastic syndrome" means a disease or symptom of the nervous system that results from an immune response to a cancer in the body and not from the local presence of cancer cells, and which may be recognised up to five years before the diagnosis of the cancer;

"a nutritional deficiency as specified" means having clinical or biochemical evidence of a deficiency of one of the following:

- (a) copper;
- (b) vitamin B1 (thiamine);
- (c) vitamin B6 (pyridoxine);
- (d) vitamin B12 (cobalamin); or
- (e) vitamin E;

"a specified chemical" means:

- (a) dimethylamine borane;
- (b) methyl bromide; or
- (c) trichloropropane;

"a substance from the specified list" means:

- (a) methyl *n*-butyl ketone (MNBK);
- (b) *n*-hexane;
- (c) nitrous oxide;
- (d) petrol;
- (e) toluene; or
- (f) xylene;

"a systemic disease from the specified list" means:

- (a) acromegaly;
- (b) amyloidosis;
- (c) chronic liver disease;
- (d) chronic renal disease;
- (e) coeliac disease;
- (f) diabetes mellitus;
- (g) Graves' disease;
- (h) hypereosinophilic syndrome;
- (i) hyperthyroidism;
- (j) hypothyroidism;
- (k) inflammatory bowel disease;
- (l) sarcoidosis;
- (m) thyrotoxic goitre; or
- (n) thyrotoxicosis;

"a systemic vasculitis from the specified list" means:

- (a) Behçet's syndrome;
- (b) Churg-Strauss syndrome (eosinophilic granulomatosis with polyangiitis);
- (c) cryoglobulinaemia;
- (d) giant cell (temporal) arteritis;
- (e) Henoch-Schonlein purpura (IgA vasculitis);
- (f) microscopic polyangiitis;
- (g) polyarteritis nodosa; or
- (h) Wegener's granulomatosis (granulomatosis with polyangiitis);

"a thermal burn" means:

- (a) a full thickness thermal burn to at least ten percent of the total body surface area; or

- (b) a partial thickness thermal burn to at least 20 percent of the total body surface area;

"a viral, bacterial or protozoal infection as specified" means current or recent infection with:

- (a) *Borrelia burgdorferi* (Lyme disease);
- (b) *Clostridium botulinum* (botulism);
- (c) *Corynebacterium diphtheriae* (diphtheria);
- (d) cytomegalovirus;
- (e) Epstein-Barr virus;
- (f) hepatitis B virus;
- (g) hepatitis C virus;
- (h) human immunodeficiency virus;
- (i) human T-cell lymphotropic virus type-1 (HTLV-1);
- (j) *Mycobacterium leprae* (leprosy);
- (k) parvovirus B19;
- (l) *Treponema pallidum* (tertiary syphilis); or
- (m) *Trypanosoma cruzi* (Chagas' disease);

"a volatile substance from the specified list" means:

- (a) allyl chloride;
- (b) carbon disulphide;
- (c) methyl *n*-butyl ketone (MNBK);
- (d) *n*-hexane;
- (e) 1,1,1-trichloroethane; or
- (f) styrene;

"an inflammatory connective tissue disease from the specified list" means:

- (a) mixed connective tissue disease;
- (b) rheumatoid arthritis;
- (c) scleroderma (progressive systemic sclerosis);
- (d) Sjogren's syndrome; or
- (e) systemic lupus erythematosus;

"an organophosphorus ester" means an agent used to inhibit acetylcholinesterase, and includes the organophosphate pesticides chlorpyrifos, dichlorvos, EPN (ethyl p-nitrophenyl theonobenzenephosphonate), leptophos, methamidophos, mipafox (diisopropyl phosphorofluoridate), omethoate, parathion, TOCP (tri-ortho-cresyl phosphate), trichlorfon and trichloronat;

"acute cholinergic poisoning" means symptoms and signs due to the inhibition of acetylcholinesterase enzyme activity which start to occur within 24 hours following exposure. These symptoms and signs include acute paralysis, overwhelming bronchial secretions, bradycardia, gastrointestinal distress, miosis, lacrimation or diarrhoea;

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

"bariatric surgery" means weight reduction surgical procedures including gastrojejunostomy, gastric stapling, vertical banded gastroplasty and gastrectomy with Roux-en-Y anastomosis;

"being poisoned with an agent as specified" means having clinical, haematological or biochemical evidence of poisoning with one of the following agents:

- (a) a polychlorinated biphenyl;
- (b) aniline-denatured rapeseed oil;
- (c) brevetoxin;
- (d) ciguatera toxin;
- (e) cobalt;
- (f) diethylene glycol;
- (g) ethylene glycol;
- (h) fruit of the Buckthorn shrub (*Karwinskia humboldtiana*);
- (i) inorganic arsenic;
- (j) inorganic lead;
- (k) mercury;
- (l) *N*-3-pyridyl methyl-*N'*-*p*-nitrophenyl urea (Vacor);
- (m) saxitoxin;
- (n) tetrodotoxin;
- (o) thallium salts;
- (p) tri-cresyl phosphate; or
- (q) tri-ortho-cresyl phosphate;

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

"DSM-5" means the American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition. Arlington, VA, American Psychiatric Association, 2013;

"having vitamin B6 (pyridoxine) hypervitaminosis" means:

- (a) having taken vitamin B6 at a rate of at least 50 milligrams per day for a continuous period of at least 12 months; or
- (b) having clinical or biochemical evidence of vitamin B6 hypervitaminosis;

"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-dichloropropionate;
- (v) *o,o*-dimethyl-*o*-(2,4,5-trichlorophenyl)-phosphorothioate;
- (vi) pentachlorophenol;
- (vii) 2,3,4,6-tetrachlorophenol;

- (viii) 2,4,6-trichlorophenol;
- (ix) 1,3,4-trichloro-2-(4-nitrophenoxy)benzene;
- (x) 2,4-dichloro-1-(4-nitrophenoxy)benzene; or
- (xi) 2,4-dichloro-1-(3-methoxy-4-nitrophenoxy)-benzene;

"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 alcohol use disorder" means a mental disorder that meets the following diagnostic criteria (derived from DSM-5):

A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by at least six of the following, occurring within a 12-month period:

- A. Alcohol is often taken in larger amounts or over a longer period than was intended.
- B. There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.
- C. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.
- D. Craving, or a strong desire or urge to use alcohol.
- E. Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home.
- F. Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.
- G. Important social, occupational, or recreational activities are given up or reduced because of alcohol use.
- H. Recurrent alcohol use in situations in which it is physically hazardous.
- I. Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.
- J. Tolerance, as defined by either of the following:
 - (i) a need for markedly increased amounts of alcohol to achieve intoxication or desired effect; or
 - (ii) a markedly diminished effect with continued use of the same amount of alcohol.
- K. Withdrawal, as manifested by either of the following:
 - (i) the characteristic withdrawal syndrome for alcohol; or
 - (ii) alcohol (or a closely related substance, such as a benzodiazepine) is taken to relieve or avoid withdrawal symptoms.

The definition of alcohol use disorder excludes acute alcohol intoxication in the absence of alcohol use disorder;

"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.

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 22 September 2014.

Dated this **twenty-second** day of **August** 2014

The Common Seal of the
Repatriation Medical Authority
was affixed at the direction of:)
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PROFESSOR NICHOLAS SAUNDERS AO
CHAIRPERSON