Australian Government
Repatriation Medical Authority

Statement of Principles
concerning
PARKINSON DISEASE AND SECONDARY PARKINSONISM
(Balance of Probabilities)
(No. 88 of 2025)

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

Dated 24 October 2025

Professor Terence Campbell AM
Chairperson
by and on behalf of
The Repatriation Medical Authority

Contents

1 Name

This is the Statement of Principles concerning *Parkinson disease and Secondary Parkinsonism (Balance of Probabilities)* (No. 88 of 2025).

2 Commencement

This instrument commences on **24 November 2025**.

3 Authority

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

4 Repeal

The Statement of Principles concerning Parkinson's disease and secondary parkinsonism *(Balance of Probabilities*) (No. 56 of 2016) (Federal Register of Legislation No. F2016L00570) made under subsections 196B(3) and (8) of the VEA is repealed.

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 Parkinson disease and Secondary Parkinsonism and death from Parkinson disease and Secondary Parkinsonism.

Meaning of ***Parkinson disease and Secondary Parkinsonism***

(2) For the purposes of this Statement of Principles:

Parkinson disease means a neurodegenerative disease involving the progressive failure of dopaminergic transmission in the nigrostriatal system of the basal ganglia, which:

(a) is characterised clinically by:
  (i) the presence of bradykinesia, muscular rigidity, a resting tremor and/or postural instability;
  (ii) symptoms which may gradually progress;
  (iii) a sustained response to therapy with levodopa; and/or

(iv) non-motor symptoms including sleep, mood and autonomic disturbances; and/or

(b) is characterised pathologically by the degeneration of dopaminergic neurons in the substantia nigra pars compacta and the presence of alpha-synuclein-associated Lewy bodies or Lewy neurite intracellular inclusions at widespread locations in the central and peripheral nervous system; and

(c) excludes:
(i) Secondary Parkinsonism;
(ii) Parkinsonism in other primary neurodegenerative diseases such as Creutzfeldt-Jacob disease, Huntington disease, motor neurone disease, Wilson disease; and
(iii) Parkinson Plus diseases including neurocognitive disorder with Lewy bodies, multiple system atrophy, progressive supranuclear palsy, frontotemporal dementia and corticobasal degeneration.

Secondary Parkinsonism means an acquired movement disorder caused by exogenous factors that interfere with dopaminergic transmission in the nigrostriatal system of the basal ganglia, which:

(a) is characterised clinically by the presence of bradykinesia, muscular rigidity, a resting tremor and/or postural instability; and

(b) excludes:
(i) Parkinson disease;
(ii) dementia pugilistica;
(iii) non-parkinsonian tremors such as benign essential tremor;
(iv) Parkinsonism in primary neurodegenerative diseases such as Creutzfeldt-Jacob disease, Huntington disease, motor neurone disease, Wilson disease;
(v) Parkinson Plus diseases including neurocognitive disorder with Lewy bodies, multiple system atrophy, progressive supranuclear palsy, frontotemporal dementia and corticobasal degeneration; and
(vi) psychogenic parkinsonism.

Death from ***Parkinson disease and Secondary Parkinsonism***

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

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 Parkinson disease or Secondary Parkinsonism and death from Parkinson disease or Secondary Parkinsonism can be related to relevant service rendered by veterans 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 exist before it can be said that, on the balance of probabilities, Parkinson disease or Secondary Parkinsonism or death from Parkinson disease or Secondary Parkinsonism is connected with the circumstances of a person's relevant service:

Parkinson disease

(1) having moderate to severe traumatic brain injury at least 15 years before clinical onset of Parkinson disease;

(2) having moderate to severe traumatic brain injury within the 6 months before clinical worsening of Parkinson disease;

(3) in a person with a history of a regular smoking habit, having not smoked for at least the 5 years before clinical onset of Parkinson disease;

Note: ***regular smoking habit*** is defined in the Schedule 1 - Dictionary.

(4) in a person with a history of a regular smoking habit, having not smoked within the 10 years before clinical worsening of Parkinson disease;

Note: ***regular smoking habit*** is defined in the Schedule 1 – Dictionary.

(5) having an episode of acute cholinergic poisoning from exposure to an organophosphorus ester within the 6 weeks before clinical worsening of Parkinson disease;

Note: ***acute cholinergic poisoning*** and ***organophosphorus ester*** are defined in the Schedule 1 – Dictionary.

(6) having an intracranial space occupying lesion within the 6 weeks before clinical worsening of Parkinson disease;

Note: Examples of intracranial space occupying lesion include meningioma, glioma, lymphoma of the central nervous system, metastatic lesions, arachnoid cysts, abscess and subdural haematoma.

(7) having hydrocephalus, or draining of hydrocephalus, within the 6 weeks before clinical worsening of Parkinson disease;

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

(8) having a cerebrovascular accident, excluding transient ischaemic attack, within the 6 weeks before clinical worsening of Parkinson disease;

(9) having one of the following diseases of the cerebral vessels, in the presence of neuroimaging (magnetic resonance imaging or computed tomography) findings of cerebral white matter lesions, haemorrhage or infarction, at the time of clinical worsening of Parkinson disease:

(a) cerebral small vessel disease (Binswanger disease);
(b) cerebral amyloid angiopathy;
(c) cerebral arteriolosclerosis;
(d) cerebral venous thrombosis;
(e) hippocampal sclerosis of vascular origin (seen in temporal lobe epilepsy, hypoxic/ischaemic brain injury);
(f) inflammatory or immunologically mediated vasculitis;
(g) intravascular lymphomatosis (a type of non-Hodgkin lymphoma);
(h) laminar cortical necrosis; or
(i) Moyamoya disease or syndrome.

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

Note 2: ***neuroimaging (magnetic resonance imaging or computed tomography) findings*** is defined in the Schedule 1 – Dictionary.

(10) having a subarachnoid haemorrhage within the 6 weeks before clinical worsening of Parkinson disease;

(11) having an acquired cerebrovascular malformation or dural arteriovenous fistula at the time of clinical worsening of Parkinson disease;

(12) having an hypoxic cerebral insult within the 1 year before clinical worsening of Parkinson disease;

Note: ***hypoxic cerebral insult*** is defined in the Schedule 1 - Dictionary.

(13) having encephalitis within the 6 weeks before clinical worsening of Parkinson disease;

(14) having infection with human immunodeficiency virus before clinical worsening of Parkinson disease;

(15) having neurosyphilis at the time of clinical worsening of Parkinson disease;

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

(16) having neurocysticercosis at the time of clinical worsening of Parkinson disease;

Note: Neurocysticercosis is caused by central nervous system infection with the pork tapeworm *Tenia solium*.

(17) inhaling carbon disulphide vapour in an enclosed space, or having cutaneous contact with carbon disulphide, for a cumulative period of at least 500 hours, within the 10 years before clinical worsening of Parkinson disease;

(18) inhaling or ingesting methanol or ethylene glycol, and having clinical, haematological or biochemical evidence of methanol or ethylene glycol intoxication, within the 6 weeks before clinical worsening of Parkinson disease;

(19) being exposed to manganese for a cumulative period of at least 500 hours, within the 10 years before clinical worsening of Parkinson disease;

Note: ***being exposed to manganese*** is defined in the Schedule 1 - Dictionary.

(20) having clinical or biochemical evidence of manganese intoxication while receiving total parenteral nutrition or maintenance haemodialysis, at the time of clinical worsening of Parkinson disease;

Note: ***total parenteral nutrition*** is defined in the Schedule 1 - Dictionary.

(21) inhaling, ingesting or having cutaneous contact with cyanide, and having clinical, haematological or biochemical evidence of cyanide intoxication, within the 6 weeks before clinical worsening of Parkinson disease;

(22) having an injection containing 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) within the 6 weeks before clinical worsening of Parkinson disease;

(23) using methamphetamine or methcathinone (ephedrone) within the 3 months before clinical worsening of Parkinson disease:

(24) taking any of the medications from the specified list of medications for at least 2 weeks within the 6 weeks before clinical worsening of Parkinson disease;

Note: ***specified list of medications*** is defined in the Schedule 1 – Dictionary.

(25) taking a medication which is associated with:

(a) the clinical worsening of Parkinson disease during medication therapy; and
(b) the cessation of clinical worsening within 6 weeks of discontinuing medication therapy; and

where treatment with the drug continued for at least the 3 days before clinical worsening;

(26) having one of the following disorders of calcium metabolism at the time of the clinical worsening of Parkinson disease:

(a) Fahr syndrome;

(b) hyperparathyroidism;
(c) hypoparathyroidism; or
(d) pseudohyperparathyroidism.

Note: Fahr syndrome involves pathological calcification of the basal ganglia (beyond the globus pallidus), typically presents with neuropsychiatric symptoms, and causes include hypoparathyroidism, pseudohypoparathyroidism, cranial radiotherapy, post-infection.

(27) having cirrhosis of the liver at the time of clinical worsening of Parkinson disease;

(28) having chronic renal failure due to diabetes mellitus at the time of clinical worsening of Parkinson disease as indicated by:

(a) a glomerular filtration rate of less than 15 mL/min/1.73 m^2 for a period of at least 3 months; or
(b) undergoing chronic dialysis for renal failure.

(29) having one of the following autoimmune diseases at the time of clinical worsening of Parkinson disease:

(a) antiphospholipid syndrome;
(b) Behçet disease;
(c) nonvasculitic autoimmune inflammatory meningoencephalitis;
(d) Sjogren syndrome; or
(e) systemic lupus erythematosus.

(30) having a paraneoplastic encephalomyelitis at the time of clinical worsening of Parkinson disease;

(31) inability to obtain appropriate clinical management for Parkinson disease before clinical worsening.

Secondary Parkinsonism

(32) having moderate to severe traumatic brain injury within the 6 months before clinical onset or clinical worsening of Secondary Parkinsonism;

(33) in a person with a history of a regular smoking habit, having not smoked within the 10 years before clinical worsening of Secondary Parkinsonism;

Note: ***regular smoking habit*** is defined in the Schedule 1 – Dictionary.

(34) having an episode of acute cholinergic poisoning from exposure to an organophosphorus ester within the 6 weeks before clinical onset or clinical worsening of Secondary Parkinsonism;

Note: ***acute cholinergic poisoning*** and ***organophosphorus ester*** are defined in the Schedule 1 – Dictionary.

(35) having an intracranial space occupying lesion within the 6 weeks before clinical onset or clinical worsening of Secondary Parkinsonism;

Note: Examples of intracranial space occupying lesion include meningioma, glioma, lymphoma of the central nervous system, metastatic lesions, arachnoid cysts, abscess and subdural haematoma.

(36) having hydrocephalus, or draining of hydrocephalus, within the 6 weeks before clinical onset or clinical worsening of Secondary Parkinsonism;

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

(37) having a cerebrovascular accident, excluding transient ischaemic attack, within the 2 years before clinical onset of Secondary Parkinsonism;

(38) having a cerebrovascular accident, excluding transient ischaemic attack, within the 6 weeks before clinical worsening of Secondary Parkinsonism;

(39) having one of the following diseases of the cerebral vessels, in the presence of neuroimaging (magnetic resonance imaging or computed tomography) findings of cerebral white matter lesions, haemorrhage or infarction, at the time of clinical onset or clinical worsening of Secondary Parkinsonism:

(a) cerebral small vessel disease (Binswanger disease);
(b) cerebral amyloid angiopathy;
(c) cerebral arteriolosclerosis;
(d) cerebral venous thrombosis;
(e) hippocampal sclerosis of vascular origin (seen in temporal lobe epilepsy, hypoxic/ischaemic brain injury);
(f) inflammatory or immunologically mediated vasculitis;
(g) intravascular lymphomatosis (a type of non-Hodgkin lymphoma);
(h) laminar cortical necrosis; or
(i) Moyamoya disease or syndrome.

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

Note 2: ***neuroimaging (magnetic resonance imaging or computed tomography) findings*** is defined in the Schedule 1 – Dictionary.

(40) having a subarachnoid haemorrhage within the 6 weeks before clinical onset or clinical worsening of Secondary Parkinsonism;

(41) having an acquired cerebrovascular malformation or dural arteriovenous fistula at the time of clinical onset or clinical worsening of Secondary Parkinsonism;

(42) having an hypoxic cerebral insult within the 1 year before clinical onset or clinical worsening of Secondary Parkinsonism;

Note: ***hypoxic cerebral insult*** is defined in the Schedule 1 - Dictionary.

(43) having encephalitis within the 6 weeks before clinical onset or clinical worsening of Secondary Parkinsonism;

(44) having infection with human immunodeficiency virus before clinical onset or clinical worsening of Secondary Parkinsonism;

(45) having neurosyphilis at the time of clinical onset or clinical worsening of Secondary Parkinsonism;

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

(46) having neurocysticercosis at the time of clinical onset or clinical worsening of Secondary Parkinsonism;

Note: Neurocysticercosis is caused by central nervous system infection with the pork tapeworm *Tenia solium*.

(47) inhaling carbon disulphide vapour in an enclosed space, or having cutaneous contact with carbon disulphide, for a cumulative period of at least 500 hours, within the 10 years before clinical onset or clinical worsening of Secondary Parkinsonism;

(48) inhaling or ingesting methanol or ethylene glycol, and having clinical, haematological or biochemical evidence of methanol or ethylene glycol intoxication, within the 6 weeks before clinical onset or clinical worsening of Secondary Parkinsonism;

(49) being exposed to manganese for a cumulative period of at least 500 hours, within the 10 years before clinical onset or clinical worsening of Secondary Parkinsonism;

Note: ***being exposed to manganese*** is defined in the Schedule 1 - Dictionary.

(50) having clinical or biochemical evidence of manganese intoxication while receiving total parenteral nutrition or maintenance haemodialysis, at the time of clinical onset or clinical worsening of Secondary Parkinsonism;

Note: ***total parenteral nutrition*** is defined in the Schedule 1 - Dictionary.

(51) inhaling, ingesting or having cutaneous contact with cyanide, and having clinical, haematological or biochemical evidence of cyanide intoxication, within the 6 weeks before clinical onset or clinical worsening of Secondary Parkinsonism;

(52) having an injection containing 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) within the 6 weeks before clinical onset or clinical worsening of Secondary Parkinsonism;

(53) using methamphetamine or methcathinone (ephedrone) within the 3 months before clinical onset or clinical worsening of Secondary Parkinsonism:

(54) taking any of the medications from the specified list of medications for at least 2 weeks within the 6 weeks before clinical onset or clinical worsening of Secondary Parkinsonism;

Note: ***specified list of medications*** is defined in the Schedule 1 – Dictionary.

(55) taking a medication which is associated with:

(a) the development of Secondary Parkinsonism during medication therapy; and
(b) the cessation of Secondary Parkinsonism within 6 months of discontinuing medication therapy; and

where treatment with the drug continued for at least the 14 days before clinical onset;

(56) taking a medication which is associated with:

(a) the clinical worsening of Parkinson disease or Secondary Parkinsonism during medication therapy; and
(b) the cessation of clinical worsening within 6 weeks of discontinuing medication therapy; and

where treatment with the drug continued for at least the 3 days before clinical worsening;

(57) having one of the following disorders of calcium metabolism at the time of the clinical onset or clinical worsening of Secondary Parkinsonism:

(a) Fahr syndrome;
(b) hyperparathyroidism;
(c) hypoparathyroidism; or
(d) pseudohyperparathyroidism.

Note: Fahr syndrome involves pathological calcification of the basal ganglia (beyond the globus pallidus), typically presents with neuropsychiatric symptoms, and causes include hypoparathyroidism, pseudohypoparathyroidism, cranial radiotherapy, post-infection.

(58) having cirrhosis of the liver at the time of clinical onset or clinical worsening of Secondary Parkinsonism;

(59) having chronic renal failure due to diabetes mellitus at the time of clinical onset or clinical worsening of Secondary Parkinsonism as indicated by:

(a) a glomerular filtration rate of less than 15 mL/min/1.73 m^2 for a period of at least 3 months; or
(b) undergoing chronic dialysis for renal failure.

(60) having one of the following autoimmune diseases at the time of clinical onset or clinical worsening of Secondary Parkinsonism:

(a) antiphospholipid syndrome;
(b) Behçet disease;
(c) nonvasculitic autoimmune inflammatory meningoencephalitis;
(d) Sjogren syndrome; or
(e) systemic lupus erythematosus.

(61) having a paraneoplastic encephalomyelitis at the time of clinical onset or clinical worsening of Secondary Parkinsonism;

(62) inability to obtain appropriate clinical management for Secondary Parkinsonism before clinical worsening.

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 clinical worsening aspect factors set out in section 9 apply only to material contribution to, or aggravation of, Parkinson disease or Secondary Parkinsonism where the person's Parkinson disease or Secondary Parkinsonism 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:

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

being exposed to manganese means:

(a) working in the mining or smelting of ores containing manganese; or
(b) welding with rods containing manganese; or
(c) inhaling dust containing manganese.

cerebral arteriolosclerosis means thickening of the walls of small arteries or arterioles of the brain, due to cell proliferation or hyaline deposition.

hydrocephalus means a condition characterised by dilation of the cerebral ventricles and accompanied by accumulation of excess cerebrospinal fluid within the skull. This definition includes obstructive and non-obstructive hydrocephalus, idiopathic normal pressure hydrocephalus or traumatic hydrocephalus.

hypoxic cerebral insult means an event which results in either a decreased rate of cerebral blood flow or decreased oxygen content of cerebral arterial blood for a sustained period. Circumstances where hypoxic cerebral insult occur include carbon monoxide poisoning, cardiac arrest and high-altitude mountain ascent.

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

neuroimaging (magnetic resonance imaging or computed tomography) findings means an image of an interior of a body obtained by medical techniques, that is usually obtained at a date after clinical onset of the disease.

neurosyphilis means infection of the central nervous system with *Treponema pallidum.*

one pack-year means the amount of tobacco consumed in smoking 20 cigarettes per day for a period of 1 year, or an equivalent amount of tobacco products.

Note 1: An equivalent amount of tobacco products is 7,300 grams of smoking tobacco by weight, either in cigarettes, pipe tobacco or cigars, or a combination of same. For pipe tobacco, cigars or combinations of multiple tobacco types, 1 gram of tobacco is considered to be equal to one cigarette.

Note 2: Pack-years are calculated by dividing the number of cigarettes smoked per day by 20 and multiplying this number by the number of years the person has smoked. For example, smoking

10 cigarettes per day for 10 years is equal to 5 pack-years, and smoking 40 cigarettes per day for 10 years is equal to 20 pack-years.

organophosphorus ester means an agent used to inhibit acetylcholinesterase, and includes the organophosphate pesticides chlorpyrifos, dichlorvos, O-ethyl-O-(4-nitrophenyl)phenylthiophosphonate (EPN), leptophos, methamidophos, mipafox (diisopropyl phosphorofluoridate), omethoate, parathion, TOCP (tri-ortho-cresyl phosphate), trichlorfon and trichlornat.

Parkinson disease and Secondary Parkinsonism—see subsection 7(2).

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.

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

regular smoking habit means having smoked at least 5 pack-years of tobacco products, within a continuous 5 year period.

Note: ***one pack-year*** is also defined in the Schedule 1 – Dictionary.

specified list of medications means:

(a) 5-fluorouracil;
(b) alpha-methyldopa;
(c) amiodarone;
(d) amlodipine;
(e) amoxapine;
(f) amphotericin B;
(g) antipsychotic drug (including typical and atypical agents);
(h) aprindine;
(i) bethanechol (intraspinal or intracranial);
(j) bupropion;
(k) buspirone;
(l) butyrophenones (e.g. haloperidol, droperidol);
(m) captopril;
(n) chloroquine;
(o) cimetidine;
(p) cinnarizine;
(q) clopamide-pindolol combination;
(r) cyclophosphamide;
(s) cyclosporine;
(t) cytosine arabinoside;
(u) diltiazem;
(v) disulfiram;
(w) domperidone;
(x) doxorubicin;
(y) droperidol;
(z) flunarizine;
(aa) gabapentin;
(bb) indeloxazine;

(cc) lithium;
(dd) lorazepam;
(ee) methotrexate;
(ff) metoclopramide;
(gg) metopimazine;
(hh) molindone;
(ii) naproxen;
(jj) phenothiazines (e.g. phenothiazine, prochlorperazine or promethazine);
(kk) phenylamine;
(ll) phenytoin;
(mm) pimozide;
(nn) pregabalin;
(oo) prokinetics/propulsive agents (including alizapride, cisapride, clebopride, itopride);
(pp) propiverine;
(qq) pyridostigmine;
(rr) reserpine;
(ss) sodium valproate (valproic acid);
(tt) tacrolimus;
(uu) tetrabenazine;
(vv) thiethylperazine;
(ww) thioxanthenes;
(xx) tiapride;
(yy) trimetazidine;
(zz) veralipride;
(aaa) verapamil; or
(bbb) vincristine plus Adriamycin.

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.

total parenteral nutrition means continuous intravenous drip feeding with no feeding via mouth or gut.

VEA means the *Veterans' Entitlements Act 1986*.