REVOKED

Revocation and Determination

of

Statement of Principles
concerning

HYPERTENSION

ICD-9-CM CODES: 401 - 405

Veterans' Entitlements Act 1986

1. The Repatriation Medical Authority under subsection **196B(3)** of the *Veterans' Entitlements Act 1986* (the Act):

(a) revokes Instrument No.84 of 1995; and

(b) determines in its place the following Statement of Principles.

Kind of injury, disease or death

2. (a) This Statement of Principles is about **hypertension** and **death from hypertension**.

(b) For the purposes of this Statement of Principles, **"hypertension"** means elevated blood pressure, evidenced by:

(a) a usual blood pressure reading where the systolic reading is greater than or equal to 140 mmHg and/ or where the diastolic reading is greater than or equal to 90 mmHg; or

(b) administration of antihypertensive therapy,

excluding temporary elevations in blood pressure from conditions such as acute renal failure, neurogenic hypertension, hypertension due to medications or hypertension associated with eclampsia or

pre-eclampsia, attracting an ICD-9-CM code in the range 401 to 405.

Basis for determining the factors

3. On the sound medical-scientific evidence available, the Repatriation Medical Authority is of the view that it is more probable than not that **hypertension and death from hypertension** can be related to relevant service rendered by veterans or members of the Forces.

Factors that must be related to service

4. Subject to clause 6, at least one of the factors set out in clause 5 must be related to any relevant service rendered by the person.

Factors

5. The factors that must exist before it can be said that, on the balance of probabilities, **hypertension** or **death from hypertension** is connected with the circumstances of a person's relevant service are:

(a) being obese at the time of the accurate determination of hypertension; or

(b) suffering from alcohol dependence or alcohol abuse involving consumption of an average of at least 300 grams per week of alcohol (contained within alcoholic drinks), at the time of the accurate determination of hypertension; or

(c) ingesting at least 15 grams (250 mmol) of salt supplements per day on average for a continuous period of at least 6 months immediately before the accurate determination of hypertension; or

(d) suffering from renal artery stenosis at the time of the accurate determination of hypertension; or

(e) suffering from chronic renal failure at the time of the accurate determination of hypertension; or

(f) suffering from a chronic renal parenchymal disease or injury at the time of the accurate determination of hypertension; or

(g) suffering from a renin-secreting neoplasm at the time of the accurate determination of hypertension; or

(h) suffering from Cushing's syndrome, primary aldosteronism, phaeochromocytoma or hypothyroidism at the time of the accurate determination of hypertension; or

(j) suffering from a collagen vascular disease with renal involvement at the time of the accurate determination of hypertension; or

(k) suffering an injury to the kidney or renal artery causing scarring of that kidney or stenosis of that artery before the accurate determination of hypertension; or

(m) undergoing treatment with a drug which has caused an increase in the blood pressure for a condition for which the drug cannot be ceased or substituted, at the time of the accurate determination of hypertension; or

(n) being obese at the time of the clinical worsening of hypertension; or

(o) suffering from alcohol dependence or alcohol abuse involving consumption of an average of at least 300 grams per week of alcohol (contained within alcoholic drinks), at the time of the clinical worsening of hypertension; or

(p) ingesting at least 15 grams (250 mmol) of salt supplements per day on average for a continuous period of at least 6 months immediately before the clinical worsening of hypertension; or

(q) suffering from chronic renal failure at the time of the clinical worsening of hypertension; or

(r) suffering from a chronic renal parenchymal disease or injury at the time of the clinical worsening of hypertension; or

(s) suffering from a renin-secreting neoplasm at the time of the clinical worsening of hypertension; or

(t) suffering from Cushing's syndrome, primary aldosteronism, phaeochromocytoma or hypothyroidism at the time of the clinical worsening of hypertension; or

(u) suffering from a collagen vascular disease with renal involvement at the time of the clinical worsening of hypertension; or

(v) suffering an injury to the kidney or renal artery causing scarring of that kidney or stenosis of that artery before the clinical worsening of hypertension; or

(w) undergoing treatment with a drug which has caused an increase in the blood pressure for a condition for which the drug cannot be ceased or substituted, at the time of the clinical worsening of hypertension; or

(x) inability to obtain appropriate clinical management for hypertension.

Factors that apply only to material contribution or aggravation

6. Paragraphs **5(n) to 5(x)** apply only to material contribution to, or aggravation of, hypertension where the person's hypertension was suffered or contracted before or during (but not arising out of) the person's relevant service; paragraph 8(1)(e), 9(1)(e) or 70(5)(d) of the Act refers.

Inclusion of Statements of Principles

7. 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.

Other definitions

8. For the purposes of this Statement of Principles:

"accurate determination of hypertension" means establishing the diagnosis of hypertension by the accurate measurement of blood pressure on a number of occasions. As stated in the document '*The Management of Hypertension: a consensus statement'* published in The Medical Journal of Australia Vol 160 Supplement, 21 March 1994, to obtain accurate measurement of blood pressure, the conditions for measurement should be standardised as much as possible before readings by ensuring the following:

- a mercury sphygmomanometer should be used in the diagnosis of hypertension;
- patients should be relaxed and seated. Additional information may be provided by supine and standing readings. This is particularly important in the elderly and diabetics, as both groups are prone to postural hypotension;
- the bare arms should be supported and positioned at heart level;
- a cuff of suitable size should be applied evenly to the exposed upper arm, with the bladder of the cuff positioned over the brachial artery. the bladder length should be at least 80%, and the width at least 40%, of the circumference of the upper arm;

- the cuff should be snugly wrapped around the upper arm and inflated to 30 mmHg above the pressure at which the radial pulse disappears;
- in older patients, if the radial artery remains palpable when the cuff pressure exceeds the expected systolic pressure, the cuff reading may be inappropriately high (pseudo-hypertension);
- the cuff should be deflated at a rate no greater than 2 mmHg/beat (2 mmHg/sec);
- if initial readings are high, several further readings should be taken after five minutes of quiet rest;
- on each occasion two or more readings should be averaged. If the first two readings differ by more than 4 mmHg systolic or 4 mmHg diastolic, further readings should be taken. For the diastolic reading, the disappearance of sound (phase V Korotkoff) should be used. Muffling of sound (phase IV Korotkoff) should only be used if sound continues towards zero.

At the same time heart rate and rhythm should be measured and recorded. When the cardiac rhythm is irregular, eg. atrial fibrillation, the systolic pressure should be recorded as an average of a series of phase 1 readings, and diastolic pressures should be recorded as an average of phases IV and V.

- For adequate standardisation, caffeine ingestion and smoking should be avoided for two hours before blood pressure measurement;

"alcohol abuse" means the presence of a maladaptive pattern of alcohol use manifested by recurrent and significant adverse consequences related to the repeated use of alcohol;

"alcohol (contained within alcoholic drinks)" is measured by the alcohol consumption calculations utilising the Australian Standard of 10 grams of alcohol per standard alcoholic drink;

"alcohol dependence" means the presence of a constellation of cognitive, behavioural and physiological symptoms indicating the use of alcohol despite significant alcohol-related problems. The pattern of repeated self administration may result in tolerance, withdrawal and compulsive alcohol use behaviour;

"being obese" means an increase in body weight by way of fat accumulation beyond an arbitrary limit, and due to a cause specified in the Repatriation Medical Authority's Statement about the causes of "being obese" signed by the Chairman of the Authority on 16 August 1996.

The measurement used to define "being obese" is the Body Mass Index (BMI).

The BMI = W/H^2 and where:

W is the person's weight in kilograms and
H is the person's height in metres.

"Being obese" is considered to be present when the BMI is 30 or greater. This definition excludes weight gain not resulting from fat deposition such as gross oedema, peritoneal or pleural effusion, or muscle hypertrophy. "Being obese" develops when energy intake is in excess of expenditure for a sustained period of time.

For a factor to be included as a cause of "being obese" it must have resulted in a significant weight gain, of the order of a 20% increase in baseline weight, and in association with a BMI of 30 or greater;

"chronic renal failure" means renal injury of a sustained nature that is not reversible and leads to destruction of nephron mass, and is associated with a demonstrable functional abnormality of the kidney;

"chronic renal parenchymal disease or injury" means chronic irreversible renal parenchymal damage from conditions such as

(i) chronic pyelonephritis; or
(ii) chronic glomerulonephritis; or
(iii) diabetic nephrosclerosis; or
(iv) obstructive nephropathy; or
(v) analgesic nephropathy; or
(vi) renal tuberculosis; or
(vii) polycystic kidney disease; or
(viii) renal ischaemia/infarction;

"clinical worsening of hypertension" means clinically significant worsening of hypertension, which for example requires a change in medication to deal with the clinical worsening;

"collagen vascular disease" means an autoimmune disorder which causes vasculitis, such as polyarteritis nodosa;

"Cushing's syndrome" means a condition due to hyperadrenocorticism resulting from neoplasms of the adrenal cortex or the anterior lobe of the pituitary, or from prolonged excessive intake of glucocorticoids for therapeutic purposes;

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

"hypothyroidism" means the functional state resulting from insufficiency of thyroid hormones;

"ICD-9-CM code" means a number assigned to a particular kind of injury or disease in the Australian Version of The International Classification of Diseases, 9th revision, Clinical Modification (ICD-9-CM), effective date of 1 July 1996, copyrighted by the National Coding Centre, Faculty of Health Sciences, University of Sydney, NSW, and having ISBN 0 642 24447 2;

"phaeochromocytoma" means a disease characterised by paroxysmal or sustained hypertension due to a tumour located in either adrenal gland or anywhere along the sympathetic nervous chain, or in aberrant locations including the thorax, bladder or brain;

"primary aldosteronism" means a syndrome associated with hypersecretion of the major adrenal mineralocortoid, aldosterone;

"relevant service" means:

(a) eligible war service (other than operational service); or
(b) defence service (other than hazardous service);

"renal artery stenosis" means partial occlusion of at least 50%, or a complete occlusion of a renal artery, and which produces clinical manifestations which are poorly controlled hypertension, renal impairment, or acute pulmonary oedema. Causes of renal artery stenosis include atherosclerosis, fibromuscular dysplasia, dissection, fibrosis/scarring (following surgery/trauma) and external compression;

"renin-secreting neoplasm" means a neoplasm that secretes renin, an enzyme that converts angiotensinogen to angiotensin I;

"salt supplement" means salt added to food when cooking or eating, or salt contained in salt tablets;

"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

9. This Instrument applies to all matters to which section 120B of the Act applies.

Dated this *Third* day of *September* 1998

The Common Seal of the)
Repatriation Medical Authority)
was affixed to this instrument)
in the presence of:)

KEN DONALD
CHAIRMAN