



**Australian Government**  
**Repatriation Medical Authority**

**Statement of Principles**  
**concerning**  
**RENAL STONE DISEASE**  
**(Reasonable Hypothesis)**  
**(No. 69 of 2019)**

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The Repatriation Medical Authority determines the following Statement of Principles under subsection 196B(2) of the *Veterans' Entitlements Act 1986*.

Dated 21 June 2019

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 'N. Saunders'.

Professor Nicholas Saunders AO  
Chairperson

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**1 Name**

This is the Statement of Principles concerning *renal stone disease (Reasonable Hypothesis)* (No. 69 of 2019).

**2 Commencement**

This instrument commences on 22 July 2019.

**3 Authority**

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

**4 Repeal**

The Statement of Principles concerning renal stone disease No. 65 of 2010 (Federal Register of Legislation No. F2010L02304) made under subsection 196B(2) of the VEA is repealed.

**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 renal stone disease and death from renal stone disease.

*Meaning of renal stone disease*

- (2) For the purposes of this Statement of Principles, renal stone disease:
- (a) means the presence of one or more calculi in the kidney (nephrolithiasis) or ureter (ureterolithiasis), which result from crystallisation of mineral salts in the urine; and
  - (b) excludes nephrocalcinosis (renal parenchymal calcification) and primary calculus of the lower urinary tract (urinary bladder or urethra).

Note: Renal stones are typically composed of calcium salts (calcium oxalate or calcium phosphate), uric acid, cystine or struvite (magnesium, ammonium and phosphate).

- (3) While renal stone disease attracts ICD-10-AM code N20, in applying this Statement of Principles the meaning of renal stone disease 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), Tenth Edition, effective date of 1 July 2017, copyrighted by the Independent Hospital Pricing Authority, ISBN 978-1-76007-296-4.

#### *Death from renal stone disease*

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

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 renal stone disease and death from renal stone disease 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: *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 as a minimum exist before it can be said that a reasonable hypothesis has been raised connecting renal stone disease or death from renal stone disease with the circumstances of a person's relevant service:

- (1) being a prisoner of war of the Japanese before the clinical onset of renal stone disease;
- (2) having primary hyperparathyroidism within the ten years before the clinical onset of renal stone disease;
- (3) having post-surgical hypoparathyroidism at the time of the clinical onset of renal stone disease;
- (4) having a malignant neoplasm, other than non-metastatic non-melanotic malignant neoplasm of the skin, at the time of the clinical onset of renal stone disease;

- (5) having a haematological disease from the specified list of haematological diseases at the time of the clinical onset of renal stone disease;

Note: *specified list of haematological diseases* is defined in the Schedule 1 - Dictionary.

- (6) having gout or hyperuricaemia at the time of the clinical onset of renal stone disease;

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

- (7) having tumour lysis syndrome at the time of the clinical onset of renal stone disease;

Note: *tumour lysis syndrome* is defined in the Schedule 1 - Dictionary.

- (8) having diarrhoea on more days than not, for a continuous period of at least four weeks, within the three months before the clinical onset of renal stone disease;

- (9) having hypokalaemia for a continuous period of at least the four weeks before the clinical onset of renal stone disease;

- (10) having distal renal tubular acidosis at the time of the clinical onset of renal stone disease;

Note: *distal renal tubular acidosis* is defined in the Schedule 1 - Dictionary.

- (11) having a urinary tract infection with urease-producing bacteria within the five years before the clinical onset of renal stone disease;

Note: *urease-producing bacteria* is defined in the Schedule 1 - Dictionary.

- (12) having an acquired narrowing or obstruction of the ureter, ureteropelvic junction or renal calyx, on the affected side, at the time of the clinical onset of renal stone disease;

- (13) having a gastrointestinal disease from the specified list of gastrointestinal diseases at the time of the clinical onset of renal stone disease;

Note: *specified list of gastrointestinal diseases* is defined in the Schedule 1 - Dictionary.

- (14) having undergone:

- (a) a malabsorptive bariatric procedure; or
- (b) ileal resection or ileal bypass surgery; or
- (c) Roux-en-Y gastric bypass surgery;

within the five years before the clinical onset of renal stone disease;

Note: *malabsorptive bariatric procedure* is defined in the Schedule 1 - Dictionary.

- (15) having a systemic disease from the specified list of systemic diseases at the time of the clinical onset of renal stone disease;

Note: *specified list of systemic diseases* is defined in the Schedule 1 - Dictionary.

- (16) being treated with a drug or a drug from a class of drugs from the specified list of drugs, within the six weeks before the clinical onset of renal stone disease;

Note: *specified list of drugs* is defined in the Schedule 1 - Dictionary.

- (17) using a vitamin D supplement combined with at least 1 000 milligrams calcium supplementation daily for a continuous period of at least the two years before the clinical onset of renal stone disease;

- (18) having a urinary diversion procedure before the clinical onset of renal stone disease;

Note: *urinary diversion procedure* is defined in the Schedule 1 - Dictionary.

- (19) having neurogenic bladder at the time of the clinical onset of renal stone disease;

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

- (20) having paraplegia or quadriplegia at the time of the clinical onset of renal stone disease;

- (21) being immobile for a continuous period of at least four weeks within the three months before the clinical onset of renal stone disease;

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

- (22) an inability to consume an average of at least 400 grams of calcium per day for a continuous period of at least six months, within the one year before the clinical onset of renal stone disease;

- (23) having inadequate fluid intake, for a continuous period of at least four weeks, within the three months before the clinical onset of renal stone disease;

Note: *inadequate fluid intake* is defined in the Schedule 1 - Dictionary.

- (24) being overweight or obese for at least the five years before the clinical onset of renal stone disease;

Note: *being overweight or obese* is defined in the Schedule 1 - Dictionary.

- (25) having anorexia nervosa at the time of the clinical onset of renal stone disease;

- (26) having a renal transplant before the clinical onset of renal stone disease;

- (27) inhaling cadmium fumes from the smelting and refining of metals, from soldering or welding metal that contains cadmium, or working in plants that make cadmium products:

- (a) for a cumulative period of at least 3 500 hours before the clinical onset of renal stone disease; and

- (b) where that exposure has ceased, the clinical onset of renal stone disease has occurred within ten years of cessation;
- (28) experiencing spaceflight for a continuous period of at least seven days within the 30 days before the clinical onset of renal stone disease;
- (29) inability to obtain appropriate clinical management for renal stone disease.

## **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(29) applies only to material contribution to, or aggravation of, renal stone disease where the person's renal stone disease 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:

***being immobile*** means having gross diminution or near complete absence of movement of the body, such as could occur as a result of paralysis, lower limb fracture or being bed-bound.

***being overweight or obese*** means having a Body Mass Index (BMI) of 25 or greater.

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

**BMI** means  $W/H^2$  where:

W is the person's weight in kilograms; and

H is the person's height in metres.

***distal renal tubular acidosis*** means an acquired syndrome of hyperchloraemic metabolic acidosis due to distal tubular dysfunction, characterised by hypokalaemia, alkaline urine, low urine citrate excretion, hypercalciuria, and often bone disease.

***hyperuricaemia*** means a serum uric acid level of at least 6.8 mg/dL (404 micromoles/litre).

***inadequate fluid intake*** means fluid intake:

- (a) that is insufficient to maintain an average daily urine volume of at least 750 millilitres; or
- (b) that results in urine which is consistently darker than a pale yellow colour, and there is no biochemical or medical reason for such colouration other than inadequate hydration.

Note: Urine that is darker than a pale yellow colour corresponds to grades 4 to 8 on a standard dehydration urine colour chart.

***malabsorptive bariatric procedure*** means a surgical weight-loss technique which alters the structure of the digestive tract, allowing food to bypass portions of the small intestine. Examples of such procedures include, but are not limited to, distal or total gastrectomy, biliopancreatic diversion and duodenal switch. Purely restrictive bariatric procedures, such as laparoscopic adjustable gastric banding or laparoscopic sleeve gastrectomy, are not considered malabsorptive bariatric procedures.

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

***neurogenic bladder*** means flaccid, spastic or mixed bladder dysfunction caused by neurological damage affecting the bladder.

Note: Examples of causes of neurogenic bladder include, but are not limited to, spinal cord injury, cerebrovascular accident, Parkinson's disease and diabetic autonomic neuropathy.

***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.

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

***renal stone disease***—see subsection 7(2).

***specified list of drugs*** means:

- (a) aluminium derivatives;
- (b) aminopenicillins;
- (c) ammonium chloride;
- (d) carbonic anhydrase inhibitors;
- (e) ceftriaxone;
- (f) efavirenz;
- (g) ephedrine;
- (h) guaifenesin;
- (i) luteinising hormone-releasing hormone (LHRH) analogue therapy;
- (j) mesalazine;
- (k) nitrofurantoin;
- (l) orlistat;
- (m) phenazopyridine;
- (n) phenytoin;
- (o) phosphoric acid;
- (p) protease inhibitors;
- (q) quinolones;
- (r) silicate-containing antacids;
- (s) sulphasalazine;
- (t) sulphonamides;
- (u) systemic glucocorticoids;
- (v) topiramate;
- (w) triamterene;
- (x) uricosuric drugs; or
- (y) urinary alkalinisation agents.

Note 1: Aluminium derivatives include, but are not limited to, aluminium hydroxide antacids and aluminium magnesium potassium urate.

Note 2: Urinary alkalinisation agents are carbonate- or bicarbonate-containing drugs. Examples include, but are not limited to, sodium bicarbonate and potassium citrate.

***specified list of gastrointestinal diseases*** means:

- (a) biliary cirrhosis;
- (b) blind loop syndrome;
- (c) chronic pancreatitis;
- (d) coeliac sprue; or
- (e) inflammatory bowel disease.

***specified list of haematological diseases*** means:

- (a) haemolytic anaemia;
- (b) haematological malignancy;
- (c) lymphoproliferative disease;
- (d) myeloproliferative disease;
- (e) sickle-cell disease; or
- (f) thalassaemia.

***specified list of systemic diseases*** means:

- (a) Cushing syndrome;
- (b) diabetes mellitus;
- (c) sarcoidosis; or
- (d) Sjogren syndrome.

***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.

***tumour lysis syndrome*** means a group of metabolic and electrolyte abnormalities that occurs in patients with a malignant neoplasm, usually after the initiation of cytotoxic treatment, but also spontaneously. It is characterised by excessive cell lysis resulting in hyperuricaemia, hyperphosphataemia, hyperkalaemia and hypocalcaemia.

***urease-producing bacteria*** means any bacteria which possess the enzyme urease that degrades urea to ammonia and carbon dioxide, and includes, but is not limited to, *Proteus* spp., *Haemophilus* spp., *Klebsiella* spp., *Ureaplasma urealyticum* and *Serratia ureilytica*.

***urinary diversion procedure*** means a surgical procedure in which the ureter is transposed from its usual position. Examples include, but are not limited to, ureterosigmoidostomy and ileal conduit diversion.

***VEA*** means the *Veterans' Entitlements Act 1986*.