

REPATRIATION MEDICAL AUTHORITY

STATEMENT OF REASONS

REGARDING THE OUTCOME OF THE INVESTIGATION INTO NEW DAILY PERSISTENT HEADACHE

PART I	INTRODUCTION	3
PART II	BACKGROUND TO THE INVESTIGATION	3
PART III	SUBMISSIONS RECEIVED BY THE AUTHORITY PURSUANT TO SECTION 196F	3
	EVIDENCE/INFORMATION AVAILABLE TO THE REPATRIATION MEDICAL	4
PART V	LEGISLATION TO WHICH THE AUTHORITY HAD REGARD	4
Part VI	MATERIAL FINDINGS OF FACT AND REASONS FOR DECISION	6
Conclusio	on	7
PART VI	I DECISION	7
PART VI	II BIBLIOGRAPHY	8

PART I INTRODUCTION

- 1. The Repatriation Medical Authority (the Authority) has decided not to make a Statement of Principles concerning new daily persistent headache pursuant to 196B(6) of the *Veterans' Entitlements Act 1986* (the Act), following notice of an investigation gazetted on 22 November 2023 in the *Commonwealth of Australia Gazette*.
- 2. On consideration of the sound medical-scientific evidence (SMSE) available to the Authority concerning new daily persistent headache, the Authority formed the view that the SMSE is insufficient to enable the Authority to determine the causation of new daily persistent headache either on the basis of reasonable hypothesis or balance of probability. The SMSE is therefore insufficient in order to determine Statements of Principles for new daily persistent headache.

PART II BACKGROUND TO THE INVESTIGATION

- 3. A request for investigation pursuant to subsection 196B(4) of the Act for the purpose of making Statements of Principles for new daily persistent headache was received on 14 June 2023 from a person describing themselves a person eligible to make a claim for compensation under section 319 of the Military Rehabilitation and Compensation Act 2004.
- 4. The Repatriation Medical Authority, at its meeting on 8 August 2023 decided to issue a Notice of Investigation to determine whether Statements of Principles might be made in respect of new daily persistent headache under section 196G of the Act.
- 5. The Notice of Investigation was signed by the Chairperson of the Authority on 22 November 2023 and was gazetted in accordance with section 196G of the Act in the *Commonwealth of Australia Gazette* on that same date. Submissions were invited from persons and organisations wishing to make a submission by 23 January 2024.

PART III SUBMISSIONS RECEIVED BY THE AUTHORITY PURSUANT TO SECTION 196F

6. Following notification of its investigation, the Authority did not receive any information from persons or organisations eligible to make submissions pursuant to section 196F of the Act.

PART IV EVIDENCE/INFORMATION AVAILABLE TO THE REPATRIATION MEDICAL AUTHORITY

- 7. The following information was available to the Authority.
 - 7.1. A literature search conducted using Pubmed for any relevant articles concerning new daily persistent headache. Recent review articles were obtained.
 - 7.2. Medical or scientific publications as set out in the bibliography attached hereto.
 - 7.3. A Briefing paper prepared for presentation to the Authority by a research officer of the Secretariat.
 - 7.4. A discussion paper prepared by the Principal Medical Officer for the August 2023 Repatriation Medical Authority meeting.
 - 7.5. The material from the veteran received on 14 June 2023.

PART V LEGISLATION TO WHICH THE AUTHORITY HAD REGARD

SMSE

Section 5AB of the Act defines SMSE as follows:

"Information about a particular kind of injury, disease or death is taken to be sound medical-scientific evidence if:

- (a) the information:
 - is consistent with material relating to medical science that has been published in a medical or scientific publication and has been, in the opinion of the Repatriation Medical Authority, subjected to a peer review process; or
 - (ii) in accordance with generally accepted medical practice, would serve as the basis for the diagnosis and management of a medical condition; and
- (b) in the case of information about how that kind of injury, disease or death may be caused meets the applicable criteria for assessing causation currently applied in the field of epidemiology."

Relationship to Service - Section 196B(14) of the Act, states as follows:

- (14) A factor causing, or contributing to, an injury, disease or death is **related to service** rendered by a person if:
- (a) it resulted from an occurrence that happened while the person was rendering that service; or
- (b) it arose out of, or was attributable to, that service; or
- (c) it resulted from an accident that occurred while the person was travelling, while rendering that service but otherwise than in the course of duty, on a journey:

- (i) to a place for the purpose of performing duty; or
- (ii) away from a place of duty upon having ceased to perform duty; or
- (d) it was contributed to in a material degree by, or was aggravated by, that service; or
- (e) in the case of a factor causing, or contributing to, an injury—it resulted from an accident that would not have occurred:
 - (i) but for the rendering of that service by the person; or
 - (ii) but for changes in the person's environment consequent upon his or her having rendered that service; or
- (f) in the case of a factor causing, or contributing to, a disease—it would not have occurred:
 - (i) but for the rendering of that service by the person; or
 - (ii) but for changes in the person's environment consequent upon his or her having rendered that service; or
- (g) in the case of a factor causing, or contributing to, the death of a person—it was due to an accident that would not have occurred, or to a disease that would not have been contracted:
 - (i) but for the rendering of that service by the person; or
 - (ii) but for changes in the person's environment consequent upon his or her having rendered that service.

Insufficient Evidence upon Investigation - Section 196B (6) of the Act states:

- (6) If, after carrying out the investigation, the Authority is of the view:
 - (a) that there is no sound medical-scientific evidence on which it can rely to determine a Statement of Principles under subsection (2) or (3) in respect of that kind of injury, disease or death; or
 - (b) that the sound medical-scientific evidence on which it can rely is insufficient to allow it to do so;

the Authority must make a declaration in writing:

- (c) stating that it does not propose to make a Statement of Principles; and
- (d) giving the reasons for its decision.
- 8. The Authority also had regard to sections 196B(2) and 196B(3) of the Act setting out its function to determine Statements of Principles on the basis of Reasonable Hypothesis and/or Balance of Probabilities.
- 9. The Authority relied upon its expert medical knowledge when considering whether any risk factors were causally associated with new daily persistent headache and if so whether these factors could be related to the service rendered by a person.

PART VI MATERIAL FINDINGS OF FACT AND REASONS FOR DECISION

- 10. A necessary feature of the diagnosis of new daily persistent headache is that the clinical onset is clearly remembered.
- New daily persistent headache presents as a daily persistent migraine or tensiontype of headache, is disabling and not amenable to treatment.
- 12. There are no objective diagnostic tests available to diagnose new daily persistent headache.
- 13. New daily persistent headache is classified as a separate primary headache type by the International Classification of Headache disorders in its 3rd edition (2018), but is not currently classified as a distinct disease in the World Health Organisation's International Classification of Diseases 10^h revision (ICD-10).
- 14. On balance therefore, and notwithstanding the absence of a diagnostic test, the Authority considers that it is more probable than not that new daily persistent headache is a distinct disease, on the basis of its distinct features.
- 15. On the basis of the SMSE available to the Authority as part of the investigation, potential risk factors for new daily persistent headache being trauma, psychosocial stressors, psychiatric disorders, infection, cervical spine hypermobility, medications, chemicals, anemia, thyroid disease, myasthenia gravis/cervical stenosis, vascular disease, neoplasm, skin disorder, Valsalva manoeuvre, Intracranial hypotension or hypertension, and low or high cerebrospinal fluid pressure, giant cell/ temporal arteritis, heat stroke and potential aggravating factors psychological stress, bright light, flashing light or glare, loud noise, lack of sleep, or strong smells, were researched.
- 16. In respect of potential risk factors trauma, psychosocial stressors, psychiatric disorders, infection, cervical spine hypermobility, medications and chemicals, and potential aggravating factors psychological stress, bright light, flashing light or glare, loud noise, lack of sleep, and strong smells the Authority considered that the SMSE is too limited to permit a judgement of a possible causal relationship with new daily persistent headache.
- 17. In respect of potential risk factors anemia, thyroid disease, myasthenia gravis/cervical stenosis, vascular disease, neoplasm, skin disorder, Valsalva manoeuvre, Intracranial hypotension or hypertension, and low or high cerebrospinal fluid pressure, giant cell/ temporal arteritis and heat stroke the Authority considered that the SMSE is so limited that no firm conclusion can be made as to a possible causal relationship with new daily persistent headache.
- 18. Accordingly, the Authority considers that there is insufficient SMSE to include any of the researched potential factors as causally associated with new daily persistent headache on either a reasonable hypothesis or balance of probabilities basis.

Conclusion

19. Accordingly the Authority concluded that the SMSE available to it is insufficient to justify the making of Statements of Principles concerning new daily persistent headache on either a reasonable hypothesis or balance of probabilities basis.

PART VII DECISION

20. At its meeting on 6 February 2024 the Authority decided not to make a Statement of Principles in respect of new daily persistent headache for the purposes of subsection (6) of section 196B of the Act as the Authority concluded, for the reasons set out above, that there was insufficient SMSE in order to make Statements of Principles for new daily persistent headache.

Professor Terence Campbell AM

Mamphell

Chairperson

Repatriation Medical Authority

9 February 2024

PART VIII BIBLIOGRAPHY

Alexander J. Resolution of new daily persistent headache after osteopathic manipulative treatment. J Am Osteopath Assoc, 116(3): 182-5.

American Migraine Foundation (2016). New daily persistent headache. New York, New York in the USA. https://americanmigrainefoundation.org/resource-library/new-daily-persistent-headache/

Antonescu-Ghelmez D, Butnariu I, Antonescu F, et al (2023). Thunderclap headache revealing dural tears with symptomatic intracranial hypotension: Report of two cases. Front Neurol, 14: 1132793.

Bahra A (2012). Other primary headaches. Ann Indian Acad Neurol, 15: 66-71.

Baron EP, Rothner AD (2010). New daily persistent headache in children and adolescents. Curr Neurol Neurosci Rep, 10: 127-32.

Bigal ME, Sheftell FD, Rapoport AM, et al (2003). MMPI personality profiles in patients with primary chronic daily headache: a case-control study. Neurol Sci, 24(3): 103-10.

Bordini CA, Valença MM (2017). Post-dengue new daily persistent headache. Headache, 57(9): 1449-1450.

Buture A, Tomkins EM, Shukralla A, et al (2023). Two-year, real-world erenumab persistence and quality of life data in 82 pooled patients with abrupt onset, unremitting, treatment refractory headache and a migraine phenotype: New daily persistent headache or persistent post-traumatic headache in the majority of cases. Cephalalgia, 43(6): 3331024231182126.

Callen AL, Lennarson P, Carroll IR (2023). A causative role for remote dural puncture and resultant arachnoid bleb in new daily persistent headache: A case report. Headache, 63(7): 981-983.

Caronna E, van den Hoek TC, Bolay H, et al (2023). Headache attributed to SARS-CoV-2 infection, vaccination and the impact on primary headache disorders of the COVID-19 pandemic: A comprehensive review. Cephalalgia, 43(1): 3331024221131337.

Cheema S, Mehta D, Ray JC, et al (2023). New daily persistent headache: A systematic review and meta-analysis. Cephalalgia, 43(5): 3331024231168089.

Cheema S, Stubberud A, Rantell K, et al (2023). Phenotype of new daily persistent headache: subtypes and comparison to transformed chronic daily headache. J Headache Pain, 24(1): 109.

Cleveland Clinic 2023. Internet page, Cleveland, Ohio, USA. https://my.clevelandclinic.org/health/diseases/24098-new-daily-persistent-headache-ndph#:~:text=If%20you%20have%20NDPH%2C%20you,day%20and%20doesn't%20stop.

Correia I, Marques IB, Ferreira R, et al (2016). Spontaneous intracranial hypotension treated with a targeted CT-guided epidural blood patch. Case Rep Med, 2016: 9809017.

de Abreu LV, Oliveira CB, Bordini CA, et al (2020). New daily persistent headache following dengue fever: report of three cases and an epidemiological study. Headache, 60(1): 265-268.

Devcic Z, Rozen TD, Arora M, et al (2022). Daily persistent headache with nutcracker physiology and spinal epidural venous congestion: Treatment with lumbar vein embolization. Radiol Case Rep, 17(11): 4314-4318.

Dhand UK (2022). New daily persistent headache-like presentation triggered by a sudden head drop in a patient with myasthenia gravis. Neurol Clin Pract, 11(5): e773-e774.

Di Lorenzo C, Ambrosini A, Coppola G, et al (2008). Heat stress disorders and headache: a case of new daily persistent headache secondary to heat stroke. BMJ Case Rep, 2009: bcr08.2008.0700.

Di Lorenzo C, Ambrosini A, Coppola G, et al (2008). Heat stress disorders and headache: a case of new daily persistent headache secondary to heat stroke. J Neurol Neurosurg Psychiatry, 79(5): 610-1.

Di Stani F, Di Lorenzo L, Calistri V, et al (2019). "Klingon headache" - a case report of mimic new daily persistent headache associated to primary essential cutis verticis gyrata. Clin Ter, 170(2): e77-e80.

Diaz-Mitoma F, Vanast WJ, Tyrrell DL (1987). Increased frequency of Epstein-Barr virus excretion in patients with new daily persistent headaches. Lancet, 1(8530): 411-5.

Dono F, Consoli S, Evangelista G, et al (2021). New daily persistent headache after SARS-CoV-2 infection: a report of two cases. Neurol Sci, 42(10): 3965-3968.

Duvall JR, Robertson CE, Whealy MA, et al (2020). Clinical reasoning: An underrecognized etiology of new daily persistent headache. Neurology, 94(1): e114-e120.

Evans RW, Timm JS (2016). New daily persistent headache caused by multinodular goiter and headaches associated with thyroid disease. Headache, 57(2): 285-9.

Evans RW, Timm JS (2017). New daily persistent headache caused by a multinodular goiter and headaches associated with thyroid disease. Headache, 57(2): 285-289.

Evans RW, Turner DP (2021). Clinical features of new daily persistent headache: A retrospective chart review of 328 cases. Headache, 61(10): 1529-38.

Ford-Martin P, Robinson J (2023). New daily persistent headaches. WebMD, https://www.webmd.com/migraines-headaches/new-daily-persistent

Garza I and Schwedt TJ (2023). New daily persistent headache. UpToDate, July, https://www.uptodate.com/contents/new-daily-persistent-headache#H3447713215

Gelfand AA, Robbins MS, Szperka CL (2022). New daily persistent headache-a start with an uncertain end. JAMA Neurol, 79(8): 733-734.

Gentile CP, Aguirre GK, Hersehy AD, et al (2023). Comparison of continuous headache features in youth with migraine, new daily persistent headache, and persistent post-traumatic headache. Cephalalgia, 43(1): 3331024221131331.

Goadsby PJ (2011). New daily persistent headache: A syndrome not a discrete disorder. Headache, 51(4): 650-3.

Goadsby PJ, Boes C (2002). New daily persistent headache. J Neurol Neurosurg Psychiatry, 72(Suppl 2): ii6-ii9.

Gözübatik Çelik RG, Uludüz Ulu D, Hatipoğlu E, (2022). The frequency and related factors of primary headaches in patients with Hashimoto thyroiditis. Agri, 34(4): 292-297.

Hamada T, Ohshima K, Ide Y, et al (1991). A case of new daily persistent headache with elevated antibodies to Epstein-Barr virus. Jpn J Med, 30(2): 161-3.

International Headache Society (2018). The International Classification of Headache Disorders, 3rd edition. Cephalgia, 38(1): 1-211.

Levin M (2004). Chronic daily headache and the revised International Headache Society classification. Curr Pain Headache Rep, 8(1): 59-65.

Li D, Rozen TD (2002). The clinical characteristics of new daily persistent headache. Cephalalgia, 22(1): 66-9.

Li N, Wang J, Huang Q, et al (2012). Clinical features of new daily persistent headache in a tertiary outpatient population. Headache, 52: 1546-52.

Lobo R, Wang M, Lobo S, et al (2022). Time to retire 'New daily persistent headache': Mode of onset of chronic migraine and tension-type headache. Cephalgia, 42(4-5): 385-95.

Mack KJ (2004). What incites new daily persistent headache in children? Pediatr Neurol, 31(2): 122-5.

Mack KJ (2009). New daily persistent headache in children and adults. Curr Pain Headache Rep, 13(1): 47-51.

Marmura M (2022). New daily persistent headache. Practical Neurology, https://practicalneurology.com/articles/2022-may/new-daily-persistent-headache

Mayo Clinic (2023). Chronic daily headaches. Mayo Clinic, https://www.mayoclinic.org/diseases-conditions/chronic-daily-headaches/symptoms-causes/syc-20370891

Mei Y, Wang W, Qiu D, et al (2023). Micro-structural white matter abnormalities in new daily persistent headache: a DTI study using TBSS analysis. J Headache Pain, 24(1): 80.

Meineri P, Torre E, Rota E, et al (2004). New daily persistent headache: clinical and serological characteristics in a retrospective study. Neurol Sci, 25 Suppl 3: S281-2.

Melbourne headache centre (2023). New daily persistent headache. Internet page, https://melbourneheadachecentre.com.au/conditions/new-daily-persistent-headache/

Nagaraj K, Wei DY, Puledda F, et al (2022). Comparison and predictors of chronic migraine vs. new daily persistent headache presenting with a chronic migraine phenotype. Headache, 62: 828-38.

Nierenburg H, Newman LC (2016). Update on new daily persistent headache. Curr Treat Options Neurol, 18: 25.

O'Brien M, O'Keeffe D, Hutchinson M, et al (2012). Spontaneous intracranial hypotension: case reports and literature review. Ir J Med Sci, 181(2): 171-7.

Ogunlaja O, Zhang N (2019). New daily persistent headache syndrome secondary to clival metastasis within an osseous hemangioma. Headache, 59(9): 1609-1610.

Papetti L, Sforza G, Frattale I, et al (2022). The enigma of new daily persistent headache: What solutions for pediatric age? Curr Pain Headache Rep, 26(2): 165-72.

Papetti L, Sforza G, Tarantino S, et al (2021). Features and management of new daily persistent headache in developmental-age patients. Diagnostics (Basel), 11(3): 385.

Peng K-P, Wang S-J (2022). Update of new daily persistent headache. Curr Pain Headache Rep, 26(1): 79-84.

Peres MF, Lucchetti G, Mercante JP, et al (2011). New daily persistent headache and panic disorder. Cephalalgia, 31(2): 250-3.

Prakash S, Saini S, Rana KR, et al (2012). Refining clinical features and therapeutic options of new daily persistent headache: a retrospective study of 63 patients in India. J Headache Pain, 13: 477-85.

Prakash S, Shah ND (2010). Post-infectious new daily persistent headache may respond to intravenous methylprednisolone. J Headache Pain, 11: 59-66.

Ravishankar K (2021). Uncommon (group 4.0) primary headaches: less familiarity and more missed diagnosis. Neurol India, 69(Supplement): S168-S172.

Renjen PN, Chaudhari DM, Goyal N, et al (2021). Severe acute orthostatic headache: spontaneous intracranial hypotension (SIH). BMJ Case Rep, 14(6): e243179.

Riddle EJ, Smith JH (2019). New daily persistent headache: a diagnostic and therapeutic odyssey. Curr Neurol Neurosci Rep, 19(5): 21.

Robbins MS (2011). New daily-persistent headache and anxiety. Cephalgia, 31(7): 875-6.

Robbins MS, Evans RW (2012). The heterogeneity of new daily persistent headache. Headache, 51: 1579-89.

Robbins MS, Evans RW (2012). The heterogeneity of new daily persistent headache. Headache, 51: 1579-89.

Robbins MS, Grossberg BM, Napchan U, et al (2010). Clinical and prognostic subforms of new daily-persistent headache. Neurology, 74(17): 1358-64.

Rossi P, Tassorelli C, Allena M, et al (2010). Focus on therapy: hemicrnia continua and new daily persistent headache. J Headache Pain, 11: 259-65.

Rozen TD (2010). Brief sharp stabs of head pain and giant cell arteritis. Headache, 50(9): 1516-9.

Rozen TD (2014). New daily persistent headache: An update. Curr Pain Headache Rep, 18: 431.

Rozen TD (2016). Triggering events and new daily persistent headache: age and gender differences and insights on pathogenesis-a clinic-based study. Headache, 56(1): 164-73.

Rozen TD (2019). New daily persistent headache (NDPH) triggered by a single Valsalva event: A case series. Cephalalgia, 39(6): 785-791.

Rozen TD (2020). Daily persistent headache after a viral illness during a worldwide pandemic may not be a new occurrence: Lessons from the 1890 Russian/Asiatic flu. Cephalalgia, 40(13): 1406-1409.

Rozen TD, Devcic Z, Toskich B, et al (2022). Nutcracker phenomenon with a daily persistent headache as the primary symptom: Case series and a proposed pathogenesis model based on a novel MRI technique to evaluate for spinal epidural venous congestion. J Neurol Sci, 434: 120170.

Rozen TD, Robles HA (2020). A reversible cytotoxic lesion of the corpus callosum developing after a rapid alteration in cerebrospinal fluid pressure/volume in a patient with new daily persistent headache. Case Rep Neurol Med, 2020: 8849645.

Rozen TD, Roth JM, Denenberg N (2006). Cervical spine joint hypermobility: a possible predisposing factor for new daily persistent headache. Cephalalgia, 26(10): 1182-5.

Sampaio Rocha-Filho PA. Headache associated with COVID-19: Epidemiology, characteristics, pathophysiology, and management. Headache, 62(6): 650-656.

Santoni JR, Santoni-Williams CJ (1993). Headache and painful lymphadenopathy in extracranial or systemic infection: etiology of new daily persistent headaches. Intern Med, 32(7): 530-2.

Schievink WI, Maya MM, Moser FG, et al (2005). Spectrum of subdural fluid collections in spontaneous intracranial hypotension. J Neurosurg, 103(4): 608-13.

Simmons AC, Bonner A, Giel A, et al (2022). Probable New daily persistent headache after COVID-19 in children and adolescents. Pediatr Neurol, 132: 1-3.

Singer RS (2011). New daily persistent headaches: Another traveling companion of the older headache doctor. Headache, 51(6): 1009.

Singh RK, Kaushik RM, Goel D, et al (2023). Association between iron deficiency anemia and chronic daily headache: A case-control study. Cephalalgia, 43(2): 3331024221143540.

Stubberud A, Cheema S, Tronvik E, et al (2020). Nutcracker syndrome mimicking new daily persistent headache: A case report. Cephalalgia, 40(9): 1008-1011.

Takase Y, Nakano M, Tatsumi C (2003). [Primary new daily persistent headache (NDPH): clinical characteristics of forty-three cases in Japan][Japanese]. Rinsho Shinkeigaku, 43(9): 533-8. [abstract]

Tana C, Bentivegna E, Cho SJ, et al (2022). Long COVID headache. J Headache Pain, 23(1): 93.

Tepper DE, Tepper SJ, Sheftell FD, et al (2007). Headache attributed to hypothyroidism. Curr Pain Headache Rep, 11(4): 304-9.

Torrente A, Alonge P, Di Stefano V, et al (2023). New-onset headache following COVID-19: An Italian multicentre case series. J Neurol Sci, 446: 120591.

Tyagi A (2012). New daily persistent headache. Ann Indian Acad Neurol, 15: 62-5.

Uniyal R, Chhirolya R, Tripathi A, et al (2022). Is new daily persistent headache a fallout of somatization? An observational study. Neurol Sci, 43(1): 541-547.

Uniyal R, Paliwal VK, Anand S, et al (2018). New daily persistent headache: An evolving entity. Neurol India, 66(3): 679-687.

Uniyal R, Paliwal VK, Tripathi A. Psychiatric comorbidity in new daily persistent headache: A cross-sectional study. Eur J Pain, 21(6): 1031-1038.

Yamani N, Olesen J (2019). New daily persistent headache: a systematic review on an enigmatic disorder. J Headache Pain, 20(1): 80.

Young WB (2011). New daily persistent headache: Controversy in the diagnostic criteria. Curr Pain Headache Rep, 15(1): 47-50.

Young WB, Swanson JW (2010). New daily-persistent headache. Neurology, 74: 1338-9.