



## **Appendix 1**

**This appendix was part of the submitted manuscript and has been peer reviewed. It is posted as supplied by the authors.**

Appendix to: McLeay SC,\* Harvey WM,\* Romaniuk MNM, et al. Physical comorbidities of post-traumatic stress disorder in Australian Vietnam War veterans. *Med J Aust* 2017; 206: 251-257. doi: 10.5694/mja16.00935.

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Table 1. Psychological Assessment Measures and Sleep Questionnaires

Psychological measure	Brief description	Reference
Clinician administered PTSD scale for DSM-5 (CAPS-5)	Thirty-item structured interview used to make current or lifetime diagnosis of PTSD and determine PTSD symptom severity, based on DSM-5	Weathers FW, Blake DD, Schnurr PP, Kaloupek DG, Marx BP, Keane TM. The Clinician-Administered PTSD Scale for DSM-5 (CAPS-5). Interview available from the National Center for PTSD at <a href="http://www.ptsd.va.gov/professional/assessment/adult-int/caps.asp">http://www.ptsd.va.gov/professional/assessment/adult-int/caps.asp</a> . 2013.
Depression Anxiety Stress Scale (DASS-21)	Twenty-one-item self-report questionnaire on a 4-point scale used to assess symptoms of depression, anxiety and stress	Lovibond PF, Lovibond SH. The structure of negative emotional states: comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. <i>Behaviour research and therapy</i> . 1995; 33(3): 335-43
Alcohol Use Disorders Identification Test (AUDIT)	Ten-item screening tool developed by the World Health Organization to assess alcohol consumption, drinking behaviours, and alcohol-related problems	Saunders JB, Aasland OG, Babor TF, de la Fuente JR, Grant M. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption--II. <i>Addiction</i> . 1993; 88(6): 791-804.
Montreal Cognitive Assessment (MoCA)	Thirty-question screening tool for mild cognitive impairment	Nasreddine ZS, Phillips NA, Bédirian V, Charbonneau S, Whitehead V, Collin I, et al. The Montreal Cognitive Assessment, MoCA: a brief screening tool for mild cognitive impairment. <i>Journal of the American Geriatrics Society</i> . 2005; 53(4): 695-9.
Sleep questionnaires	Brief description	Reference
Berlin Questionnaire	Screening questionnaire used to identify risk of obstructive sleep apnoea	Netzer NC, Stoohs RA, Netzer CM, Clark K, Strohl KP. Using the Berlin Questionnaire to identify patients at risk for the sleep apnea syndrome. <i>Annals of internal medicine</i> . 1999; 131(7): 485-91.
Epworth Sleepiness Scale (ESS)	Short questionnaire to evaluate daytime sleepiness	Johns MW. A new method for measuring daytime sleepiness: the Epworth sleepiness scale. <i>Sleep</i> . 1991; 14(6): 540-5.

Table 2. Medication Use in Cohort

Drug Type According to Anatomical Therapeutic Chemical (ATC) Classification System	Number of Participants Currently Taking Medication			Considered as Confounder (Binary Predictor, i.e. yes/no) on the Following Variable(s)
	No PTSD n=106	PTSD n=108	Total Cohort n=214	
Antihypertensives Diuretics Beta blocking agents Calcium channel blockers Renin-angiotensin system agents	52 (49.1%)	53 (49.1%)	105 (49.1%)	Systolic blood pressure Diastolic blood pressure
Lipid modifying agents	57 (53.8%)	54 (50%)	111 (51.9%)	Cholesterol Triglycerides High density lipoprotein Low density lipoprotein
Drugs used in diabetes	15 (14.2%)	13 (12%)	28 (13.1%)	Fasting glucose HbA1C
Androgens	2 (1.89%)	7 (6.48%)	9 (4.21%)	Testosterone

Data presented as as count (percent of group).

Table 3. Multivariate Logistic Regression Analysis: Evaluation of PTSD diagnosis as a risk factor for binary outcomes with inclusion of significant confounding demographic factors (Model 1), and evaluation of symptoms of depression and anxiety as explanatory risk factors for PTSD association with outcomes with inclusion of significant confounding demographics factors (Model 2)

Binary Outcome	Model 1			Model 2		
	PTSD & demographics model	OR (95% CI)	<i>P</i> - value	Psychological & demographics model	OR (95% CI)	<i>P</i> - value
A heart attack/myocardial infarction	PTSD	3.74 (1.18-11.9)	0.0248*	Depression	1.13 (1.03-1.23)	0.00797**
	Smoking	1.02 (1.01-1.04)	0.00398**	Smoking	1.03 (1.01-1.04)	0.000791***
Shortness of breath when exercising	Age	1.09 (1.01-1.18)	0.0235*	Anxiety	1.12 (1.04-1.20)	0.00365**
	BMI	1.11 (1.03-1.19)	0.00479**	Age	1.10 (1.02-1.20)	0.0172*
	Alcohol	1.10 (1.04-1.16)	0.000935***	BMI	1.10 (1.02-1.18)	0.0125*
Wheeze	PTSD	2.02 (1.01-4.07)	0.0482*	Alcohol	1.09 (1.02-1.15)	0.00557**
	Depression			Depression	1.12 (1.05-1.20)	0.00105**
Fatty liver	BMI	1.11 (1.00-1.23)	0.0453*	BMI	1.11 (1.00-1.23)	0.0453*
	Alcohol	1.15 (1.08-1.24)	0.0000692***	Alcohol	1.15 (1.08-1.24)	0.0000692***
Reflux	PTSD	2.25 (1.28-3.98)	0.00511**	Depression	1.12 (1.04-1.20)	0.00257**
	Alcohol	1.07 (1.01-1.13)	0.0157*	Alcohol	1.08 (1.02-1.14)	0.013*
Peptic ulcers	PTSD	3.15 (1.52-6.55)	0.00208**	PTSD	3.15 (1.52-6.55)	0.00208**
Irritable bowel syndrome	PTSD	2.48 (1.18-5.23)	0.0167*	PTSD	2.48 (1.18-5.23)	0.0167*
Constipation	PTSD	8.40 (1.03-68.4)	0.0467*	PTSD	8.40 (1.03-68.4)	0.0467*
Abnormal liver texture	PTSD	2.09 (1.06-4.15)	0.034*	Anxiety	1.09 (1.01-1.17)	0.0187*
	BMI	1.14 (1.06-1.23)	0.000262***	BMI	1.15 (1.07-1.23)	0.000207***
Diagnosed OSA	PTSD	2.84 (1.47-5.48)	0.00185**	Depression	1.13 (1.05-1.22)	0.000671***
	Age	1.09 (1.02-1.18)	0.0184*	Age	1.09 (1.01-1.17)	0.0254*
	BMI	1.18 (1.10-1.28)	1.43e-05***	BMI	1.18 (1.09-1.27)	2.65e-05***
High risk Berlin category for OSA	PTSD	2.25 (1.22-4.16)	0.00952**	Depression	1.14 (1.05-1.24)	0.0018**
	BMI	1.24 (1.14-1.35)	3.79e-07***	BMI	1.25 (1.15-1.36)	3.12e-07***
	Alcohol	1.08 (1.02-1.14)	0.01093*	Alcohol	1.09 (1.02-1.15)	0.0067**
Restless legs	PTSD	2.52 (1.42-4.50)	0.0017*	Depression	1.14 (1.07-1.22)	0.000113***
Headaches	PTSD	1.94 (1.04-3.63)	0.0376*	Anxiety	1.12 (1.04-1.19)	0.00166**
Urticaria	Alcohol	1.08 (1.02-1.14)	0.0103*	Alcohol	1.08 (1.02-1.14)	0.0103*
Hearing loss	PTSD	2.07 (1.15-3.73)	0.0154*	PTSD	2.07 (1.15-3.73)	0.0154*

\*Significant at  $p < 0.05$ ; \*\* significant at  $P < 0.01$ ; \*\*\*significant at  $P < 0.001$ ; Age, age in years; Alcohol, AUDIT score; Anxiety, DASS-21 anxiety score; BMI, body mass index ( $\text{kg}/\text{m}^2$ ); CI, confidence interval; Depression, DASS-21 depression score; OR, odds ratio; OSA, obstructive sleep apnoea; PTSD, post-traumatic stress disorder; Smoking, smoking pack year history.

Table 4. Multivariate Linear Regression Analysis: Evaluation of PTSD diagnosis as a risk factor for continuous outcomes with inclusion of significant confounding demographic factors (Model 1), and evaluation of symptoms of depression and anxiety as explanatory risk factors for PTSD association with outcomes with inclusion of significant confounding demographics factors (Model 2)

Continuous Outcome	Model 1			Model 2		
	PTSD & demographics model	Coefficient (95% CI)	<i>P</i> - value	Psychological & demographics model	Coefficient (95% CI)	<i>P</i> - value
FEV1% predicted	PTSD	-4.51 (-8.81--0.216)	0.0408*	PTSD	-4.51 (-8.81--0.216)	0.0408*
	Age	-0.825 (-1.35--0.305)	0.00213**	Age	-0.825 (-1.35--0.305)	0.00213**
	Smoking	-0.190 (-0.271--0.108)	8.96e-06***	Smoking	-0.190 (-0.271--0.108)	8.96e-06***
FVC% predicted	BMI	-0.724 (-1.15--0.295)	0.0011**	BMI	-0.724 (-1.15--0.295)	0.0011**
	Smoking	-0.0935 (-0.169--0.0178)	0.0163*	Smoking	-0.0935 (-0.169--0.0178)	0.0163*
Anion gap (mmol/L)	PTSD	0.593 (0.0345-1.15)	0.0386*	PTSD	0.593 (0.0345-1.15)	0.0386*
	BMI	0.0636 (0.00323-0.124)	0.0402*	BMI	0.0636 (0.00323-0.124)	0.0402*
eGFR	Age	-0.966 (-1.40--0.528)	2.33e-05***	Depression	-0.610 (-0.999--0.220)	0.00244**
	BMI	-0.543 (-0.932--0.153)	0.00684**	Age	-1.00 (-1.43--0.572)	8.41e-06***
Triglycerides <sup>a</sup> (mmol/L)	BMI	0.0355 (0.00891-0.0621)	0.00953**	BMI	0.0355 (0.00891-0.0621)	0.00953**
	Smoking	0.00601 (0.00126-0.0108)	0.0139*	Smoking	0.00601 (0.00126-0.0108)	0.0139*
	Alcohol	0.0246 (0.00355-0.0457)	0.02302*	Alcohol	0.0246 (0.00355-0.0457)	0.02302*
Alpha-1 antitrypsin (g/L)	PTSD	0.071 (0.0136-0.128)	0.00964**	Anxiety	0.00880 (0.00220-0.0154)	0.00964*
Caeruloplasmin (g/L)	PTSD	0.0153 (0.00537-0.0253)	0.00284**	Anxiety	0.00204 (0.0009-0.00318)	0.00055***
Epworth sleepiness score	PTSD	1.62 (0.295-2.94)	0.0173*	Depression	0.310 (0.171-0.449)	0.0000191***
	BMI	0.164 (0.0212-0.307)	0.0254*			
	Smoking	-0.0312 (-0.0564--0.00594)	0.0163*			

<sup>a</sup>Model accounts for lipid-lowering agents in addition to other confounders; \*significant at  $P < 0.05$ ; \*\* significant at  $P < 0.01$ ; \*\*\*significant at  $P < 0.001$ ; Age, age in years; Alcohol, AUDIT score; Anxiety, DASS-21 anxiety score; BMI, body mass index; CI, confidence interval; Depression, DASS-21 depression score; eGFR, estimated glomerular filtration rate; FEV1%, forced expiratory volume percent; FVC%, forced vital capacity percent; OR, odds ratio; PTSD, post-traumatic stress disorder; Smoking, smoking pack year history.