

DAFTAR PUSTAKA

- Abshirini, M., Siassi, F., Koohdani, F. et al. 2019. Dietary total antioxidant capacity is inversely associated with depression, anxiety and some oxidative stress biomarkers in postmenopausal women: a cross-sectional study, *Annals of General Psychiatry*, 18: 3, doi: <https://doi.org/10.1186/s12991-019-0225-7>.
- Akila, Prashant V, Harishchandra H, D'souza V, D'souza B. Age related changes in lipid peroxidation and antioxidant in elderly people. *Indian Journal of Clinical Biochemistry*. 2007; 22(1): 131-4.
- Alexopoulos GS. Depression in the elderly. *Lancet*. 2005; 365: 1961–70.
- Andreazza AC. Combining redox-proteomics and epigenomics to explain the involvement of oxidative stress in psychiatric disorders. *Mol Biosyst*. 2012;8(10):2503–12.
- Arkhaesi N. Kadar malondialdehyde serum. Semarang: Departemen Ilmu Kesehatan Anak FK Undip; 2008.
- Asj'ari SR, Prasetyastuti, Arifin Z, Ngadikun. Vitamin E and MDA Concentrations in Plasma of Healthy Young Adult, Elderly and Pregnancy. *Indonesia Food and Nutrition Progress*. 2003; 10(2): 120-3.
- Ayala A, Munoz MF, Arguelles S. Lipid peroxidation: production, metabolism, and signaling mechanisms of malondialdehyde and 4-hydroxy-2-nonenal. *Oxid Med Cell Longev*. 2014;2014:360438.

Badan Pusat Statistik. Hasil sensus 2011. 2013 [cited June 15, 2018]. Available from <http://www.bps.go.id/>

Badan Pusat Statistik. Indeks pembangunan manusia 1996-2011. 2013 [cited June 15, 2018]. Available from <http://www.bps.go.id/>

Bajpai A, Verma AK, Srivastava R. Oxidative Stress and Major Depression. *Journal of Clinical and Diagnostic Research*. 2014;8(12): 4-7.

Bakunina N, Pariante CM, Zunszain PA. Immune mechanisms linked to depression via oxidative stress and neuroprogression. *Immunology*. 2015;144(3):365–73.

Bal N, Acar ST, Yazici A, Yazici K, Tamer L. Altered levels of Malondialdehyde and vitamin E in major depression disorder and generalized anxiety disorder. *The journal of Psychiatry and Neurological Sciences*. 2012; 25:206-211.

Barua A, Ghosh MK, Kar N, Basilo MA. Prevalence of depressive disorders I the elderly. *Ann Saudi Med*. 2011; 31(6): 620-4.

Beal MF. Mitochondria take center stage in aging and neurodegeneration. *Ann Neurol*. 2005; 58: 495–505.

Bilici, M., Efe, H., Köroğlu, M., Uydu, H., Bekaroğlu, M. and Değer, O. (2001). Antioxidative enzyme activities and lipid peroxidation in major depression: alterations by antidepressant treatments. *Journal of Affective Disorders*, 64(1), pp.43-51.

Blazer DG. Depression in Late Life: Review and Commentary. *J Gerontol Med Sci*. 2003; 58(3):249–65.

Blazer DG, Hybels CF. Origins of depression in later life. *Psychol Med*. 2005; 35(9):1241-52.

Bodhare TN, Kaushal V, Venkatesh K, Kumar MA. Prevalence and risk factors of depression among elderly population in rural area. *Perspective in Medical Research*. 2013; 1(1): 11-5.

Boyd CM, Fortin M. Future of multiorbidity research: How should understanding of multimorbidity inform health system design? *Public Health Rev*. 2011; 32:451-74.

Brooker RJ. Genetics: analysis and principles. 4thed. New York: McGraw-Hill Science; 2011. p. 374-88.

Callahan LB, Tschetter KE, Ronan PJ. Inhibition of corticotropin releasing factor expression in the Central nucleus of the amygdala attenuates stress-induced behavioral and endocrine responses. *Front Neurosci*. 2013;7:195.

Charlson ME, Pompei P, Ales KL, Mackenzie CR. A new method of classifying prognostic comorbidity in longitudinal studies : development and validation. *J Chronic Dis*. 1987;40:373-83

Cowen PJ, Browning M. What has serotonin to do with depression. *World Psychiatry*. 2015;14(2): 158-60.

- Cumurcu BE, Ozyurt H, Etikan I, Demir S, Karlidag R. Total antioxidant capacity and total oxidant status in patients with major depression: impact of antidepressant treatment. *Psychiatry Clin Neurosci*. 2009;63(5): 639-45.
- Dalle-Donne I, Rossi R, Colombo R, Giustarini D, Milzani A. Biomarkers of Oxidative Damage in Human Disease. *Clin Chem*. 2006;52:601–2.
- Davi G, Falco A, Patrono C. Determinants of F2-isoprostane biosynthesis and inhibition in man. *Chem Phys Lipids*. 2004; 128: 149–63.
- Droge W. Free Radicals in the Physiology Control of Cell Function. *Physiol Rev*. 2003; 82:47-95.
- Eberhardt MK. Reactive Oxygen Metabolites. 2nd. Ed. Washington DC: CRC Press; 2001. p. 174-85.
- Eyre H, Baune BT. Neuroplastic changes in depression: a role for the immune system. *Psychoneuroendocrinology*. 2012;37(9):1397–416.
- Facecchia K, Fochesato LA, Ray SD, Stohs SJ, Pandey S. Oxidative toxicity in neurodegenerative diseases: role of mitochondrial dysfunction and therapeutic strategies. *J Toxicol* in press. 2011; 2011:683728.
- Fiske A, Wetherell JL, Gatz M. Depression in older adults. *Annu Rev Clin Psychol*. 2009;5: 363-89.
- Fujita-Hamabe W, Tokuyama S. The involvement of cleavage of neural cell adhesion molecule in neuronal death under oxidative stress conditions in cultured cortical neurons. *Biol Pharm Bull*. 2012;35(4):624-8.

Gałecki, P., Szemraj, J., Bienkiewicz, M., Florkowski, A. and Gałecka, E. (2009). Lipid peroxidation and antioxidant protection in patients during acute depressive episodes and in remission after fluoxetine treatment. *Pharmacological Reports*, 61(3), pp.436-447.

Gallardo-Peralta LP, Sanchez-Moreno E, Lopez De Roda AB, Arias-Astray A. Ethnicity, social support, and depression among elderly Chilean people. *J Psychol*. 2015;149(6):601-29.

Garcia-Pena C, Wagner FA, Sanchez-Garcia S, Juarez-Cedilo T, Espinel-Bermudez C, Garcia-Gonzales JJ, *et al*. Depressive symptoms among older adults in Mexico City. *J Gen Intern Med*. 2008;23(12):1973-80.

Ghodake SR, Suryakar AN, Kulhalli PM, Padalkar RK, Shaikh AK. A study of oxidative stress and influence of antioxidant vitamin supplementation in patients with major depression. *Curr Neurobiol*. 2012;3(2):107-11.

Glaesmer H, Rieder-Heller S, Braehler E, Spangenberg L, Lupp M. Age- and gender-specific prevalence and risk factors for depressive symptoms in the elderly: a population-based study. *International Psychogeriatric Association*. 2011: 1-7.

Hancock JT, Desikan R, Neill SJ. Role of Reactive Oxygen Species in Cell Signaling Pathways. *Biochemical and Biomedical Aspects of Oxidative Modification*. 2001; 29(2):345-50.

Han C, Lim Y, Hong Y. 2016. The Association between Oxidative Stress and Depressive Symptom Scores in Elderly Population: A Repeated Panel Study. *J Prev Med Public Health* 2016;49:260-74.

Ho CS, Feng L, Fam J, Mahendran R, Kua EH, Ng TP. Coexisting medical comorbidity and depression: multiplicative effects on health outcomes in older adults. *Int Psychogeriatr*. 2014;26:1221-9.

Hoyer WJ, Roodin PA. Adult Development and Aging. 5th ed. New York: McGraw-Hill; 2003.

Immundiagnostik AG. Malondialdehyde HPLC Kit. 2010 [cited Desember 10, 2016]. Available from:

http://immundiagnostik.com/fileadmin/pdf/Malondialdehyd_KC1900.pdf

Irawan H. Gangguan depresi pada lanjut usia. *CDK*. 2013; 40(11):815-9.

Islam R, Raetul I, Imtiaz A, Abdullah A, Zabun N. Elevated Serum Level of Malondialdehyde and Cortisol are Associated with Major Depressive Disorder: A Case-control Study. *SAGE Open Medicine*. 2018; 6: 1-7.

Joerg SH, Stefanie G, Tomas M. 5-hydroxyindoleacetic acid and homovanillic acid concentrations in cerebrospinal fluid in patients with Alzheimer's disease, depression and mild cognitive impairment. *Neuroendocrinol Lett*. 2004;6(25):435-7.

Kapczinski F. Oxidative stress and inflammation in depression disorders. Texas: Harris County Psychiatric Center; 2014.

Kar SK, Choudhury I. An empirical review on oxidative stress markers and their relevance in obsessive-compulsive disorder. *Int J Nutr Pharmacol Neurol Dis.* 2016;6:139-45.

Kemenkes RI. Gambaran Kesehatan Lanjut Usia di Indonesia. Jakarta: Pusat Data dan Informasi Kesehatan RI; 2013. p.3-6.

Khajehnasiri F, Mortazavi SB, Allameh A, Akhondzadeh S, Hashemi H. Total Antioxidant Capacity and Malondialdehyde in Depressive Rotational Shift Workers. *J Environ Public Health.* 2013; 2013: 150693.

Khanzode SD, Dakhale G.N, Khanzode SS, Saoji A, Palasodkar R. Oxidative damage and major depression: the potential antioxidant action of selective serotonin reuptake inhibitors. *Redox Rep.* 2003; 8: 365–70.

Kinra S, Rath B, Kabi BC. Indirect quantification of lipid peroxidation in steroid responsive nephrotic syndrome. *Arch Dis Child.* 2000; 82:76-8.

Koch A, Konig B, Spielmann J, Leitner A, Stangl GI, Eder K. Thermally Oxidized Oil Increases the Expression of Insulin Induced Genes and Inhibits Activation of Sterol Regulatory Element Binding Protein in Rat Liver. *J Nutr.* 2007;137: 2018–23.

Kohen R, Nyska A. Oxidation of biological systems: oxidative stress phenomena, antioxidants, redox reactions, and methods for their quantification. *Toxicol Pathol.* 2002;30(6): 620-50.

Kotan VO, Sarandol E, Kirhan E, Ozkaya G, Kirli S. Effects of long-term antidepressant treatment on oxidative status in major depressive disorder: a

24-week follow-up study. *Prog Neuropsychopharmacol Biol Psychiatry*. 2011;35(5): 1284-90.

Liguori, I., Russo, G., Curcio, F., Bulli, G., Aran L., Della-Morte D., et al. 2018. Oxidative stress, aging, and diseases. *Dovepress*, 2018, 13:757—772, DOI <https://doi.org/10.2147/CIA.S158513>.

Liu, Z., Zhu, Z., Zhao, J., Ren, W., Cai, Y., Wang, Q., et al. 2017. Malondialdehyde: A novel predictive biomarker for post-stroke depression, *Journal of Affective Disorders*, 220:95-101, DOI: <http://dx.doi.org/10.1016/j.jad>.

Liu, T., Zhong, S., Liao, X., Chen, J., He, T., Lai, S., & Jia, Y. 2015. A Meta-Analysis of Oxidative Stress Markers in Depression. *PloS one*, 10(10), e0138904. doi:10.1371/journal.pone.0138904.

Mao, C., Yuan, J., Lv, Y. et al. 2019. Associations between superoxide dismutase, malondialdehyde and all-cause mortality in older adults: a community-based cohort study. *BMC Geriatr*, 19, 104 doi:10.1186/s12877-019-1109-z.

Maurya Pawan K., Noto Cristiano, Rizzo Lucas B., Rios Adiel C., Nunes Sandra O.V., Barbosa D'ecio Sabbatini, Sethi Sumit, Zeni Maiara, Mansur Rodrigo B., Maes Michael, Brietzke Elisa, The role of oxidative and nitrosative stress in accelerated aging and major depressive disorder, *Progress in Neuropsychopharmacology & Biological Psychiatry* (2015), doi: 10.1016/j.pnpbp.2015.08.01

MacQueen G, Frodl T. The hippocampus in major depression: evidence for the convergence of the bench and bedside in psychiatric research? *Mol Psychiatry*. 2011; 16: 252–64.

Maes M, Kubera M, Mihaylova I, Geffard M, Galecki P, Leunis JC, et al. Increased autoimmune responses against auto-epitopes modified by oxidative and nitrosative damage in depression: implications for the

pathways to chronic depression and neuroprogression. *J Affect Disord.* 2013;149(1–3):23–9.

Maes M, Mihaylova I, Kubera M, Leunis JC, Geffard M. IgM-mediated autoimmune responses directed against multiple neoepitopes in depression: new pathways that underpin the inflammatory and neuroprogressive pathophysiology. *J Affect Disord.* 2011;135(1–3):414–8.

Maes M, Mihaylova I, Kubera M, Uytterhoeven M, Vrydags N, Bosmans E. Increased plasma peroxides and serum oxidized low density lipoprotein antibodies in major depression: markers that further explain the higher incidence of neurodegeneration and coronary artery disease. *J Affect Disord.* 2010;125(1–3):287–94.

Maes M, Vos N, Pioli R, Demedts P, Wauters A, Neels H, *et al.* Lower serum vitamin E concentration in major depression. Another marker of lowered antioxidant defenses in that illness. *J Affect Disord.* 2000; 58: 241–6.

Maes M, Yirmiya R, Norberg J, Brene S, Hibbeln J, Perini G, *et al.* The inflammatory & neurodegenerative (I&ND) hypothesis of depression: leads for future research and new drug developments in depression. *Metab Brain Dis.* 2009; 24:27–53.

Marcus M, Yasamy MT, van Ommeren M, Chisholm D, Saxena S. Depression: a global public health concern. New York: WHO Department of Mental Health and Substance Abuse; 2012.

Marta OF. Determinan Tingkat Depresi Pada Lansia Di Panti Sosial Tresna

Werdha Budi Mulia 4 Jakarta Selatan. Jakarta: Universitas Indonesia; 2012.

Maslim R. Diagnosis gangguan jiwa rujukan ringkas PPDGJ-III. Jakarta: Bagian

Psikiatri FK Unika Atmajaya; 2003.

Mazereeuw G, Herrmann N, Andreazza AC, Khan MM, Lanctot KL. A meta-analysis of lipid peroxidation markers in major depression. *Neuropsychiatr Dis Treat*. 2015;11:2479–91.

Michel TM, Pülschen D, Thome J. The role of oxidative stress in depressive disorders. *Curr Pharm Des*. 2012;18(36):5890-9.

Milaneschi Y, Bandinelli S, Penninx BW, Corsi AM, Lauretani F, Vazzana R, et al. The relationship between plasma carotenoids and depressive symptoms in older persons. *World J Biol Psychiatry*. 2011; 13: 588–98.

Morse J, Lynch T. A preliminary investigation of self reported personality disorders in late life : prevalence, predictors of depressive severity, and clinical correlates. *Aging and Mental Health*. 2003; 8(4): 307–15.

Moylan S, Berk M, Dean OM, Samuni Y, Williams LJ, O'Neil A, et al. Oxidative & nitrosative stress in depression: why so much stress? *Neurosci Biobehav Rev*. 2014;45:46–62

Moylan S, Maes M, Wray NR, Berk M. The neuroprogressive nature of major depressive disorder: pathways to disease evolution and resistance, and therapeutic implications. *Mol Psychiatry*. 2013;18(5):595–606.

Muliasari A. Konsentrasi lipid peroksida hati kelinci hiperlipidemia yang diberi senyawa hipolipidemik. Bogor: Program Studi Biokimia; 2009.

Navarro SB, Franco I, Vallejo VS, Silvestre D, Romero FJ. Lipid peroxidation is increased in tears from the elderly. *Experimental Eye Research*. 2013;115: 199-205.

Onya ON, Stanley PC. Risk factors for depressive illness among elderly gopd attendees at upth. *IOSR Journal of Dental and Medical Sciences*. 2013; 5(2): 77-86.

Owen AJ, BatterhamMJ, Probst YC, Grenyer BF, Tapsell LC. Low plasma vitamin E levels in major depression: diet or disease? *Eur Jof Clin Nutr*. 2005; 59: 304-6.

Palta P, Samuel LJ, Miller ER, Szanton SL. Depression and oxidative stress: results from a meta-analysis of observational studies. *Psychosom Med*. 2014;76(1):12-9.

Raison CL, Capuron L, Miller AH. Cytokines sing the blues: inflammation and the pathogenesis of depression. *Trends Immunol*. 2006;27(1):24-31.

Reeve J, Lloyd-Williams M, Dowrick C. Revisiting depression in palliative care settings: the need to focus on clinical utility over validity. *Palliat Med*. 2008;22(4):383-91.

Regier DA, Kuhl EA, Kupfer DJ. The DSM-5: Classification and criteria changes. *World Psychiatry*. 2013;12(2):92-8.

Rybka, J., Kędziora-Kornatowska, K., Banaś-Leżańska, P., Majsterek, I., Livia A., Carvalho, et al. 2013. Interplay between the pro-oxidant and antioxidant

systems and proinflammatory cytokine levels, in relation to iron metabolism and the erythron in depression. *Free Radical Biology and Medicine*, 63:187–194.

Robaczewska, J., Kędziora-Kornatowska, K., Kucharski, R., Nowak, M., Muszalik, M., Kornatowski M., & Kędziora, J. 2016. Decreased expression of heme oxygenase is associated with depressive symptoms and may contribute to depressive and hypertensive comorbidity, *Redox Report*, 21:5, 209-18, DOI: 10.1080/13510002.2015.1101889

Sadik CD, Luster AD. Lipid-cytokine-chemokine cascades orchestrate leukocyte recruitment in inflammation. *J Leukoc Biol*. 2012;91(2):207–15.

Samuelsson G, McCamish-Svensson C, Hagberg B, Sundstrom G, Dehlin O. Incidence and risk factors for depression and anxiety disorders: results from a 34-year longitudinal Swedish cohort study. *Aging Ment Health*. 2005;9(6):571-5.

Sarandol, A., Sarandol, E., Eker, S., Erdinc, S., Vatansever, E. and Kirli, S. (2007). Major depressive disorder is accompanied with oxidative stress: short-term antidepressant treatment does not alter oxidative–antioxidative systems. *Human Psychopharmacology: Clinical and Experimental*, 22(2), pp.67-73.

Setiati S, Harimurti K. Proses Menua dan Implikasi Kliniknya. Dalam: Sudoyo AW, Setiyohadi B, Alwi I, Simadibrata M, Setiati S (eds.). *Buku Ajar Ilmu Penyakit Dalam edisi V*. Jakarta: PAPDI; 2009. p.1335-40.

Sharifian A, Farahani S, Pasalar P, Gharavi M, Aminian O. Shift work as an oxidative stressor. *J Circadian Rhythms*. 2005; 3: 15.

- Sher L, Oquendo MA, Li S, Huang YY, Grunebaum MF, Burke AK, *et al.* Lower CSF homovanillic acid levels in depressed patients with a history of alcoholism. *Neuropsychopharmacology*. 2003; 28(9):1712-9.
- Singh OP, Chakraborty I, Dasgupta A, Datta S. A comparative study of oxidative stress and interrelationship of important antioxidants in haloperidol and olanzapine treated patients suffering from schizophrenia. *Indian J Psychiatry*. 2008; 50: 171-7.
- SoejonoCH, Probosuseno, SariNK. Depresi Pada Pasien Usia Lanjut. In: Sudoyo AW, Setiyohadi B, Alwi I, Simadibrata M, Setiati S (eds). *Buku Ajar Ilmu Penyakit Dalam edisi V*. Jakarta: PAPDI; 2009. p. 1335-40.
- Sozeri-Varma G. Depression in the elderly: clinical features and risk factors. *Aging Dis*. 2012; 3(6):465-71.
- Sullivan GM, Oquendo MA, Huang Y, Mann JJ. Elevated cerebrospinal fluid 5-hydroxyindoleacetic acid levels in women with comorbid depression and panic disorder. *Int J Neuropsychopharmacol*. 2006; 9: 547-56.
- Sultana R, Perluigi M, Allan Butterfield D. Lipid peroxidation triggers neurodegeneration: a redox proteomics view into the Alzheimer disease brain. *Free Radic Biol Med*. 2013;62:157-69.
- Szelényi J, Vizi ES. The catecholamine cytokine balance: interaction between the brain and the immune system. *Ann N Y Acad Sci*. 2007;1113:311-24.
- Taylor WD. Depression in elderly. *N Engl J Med*. 2014; 371(13): 1228-36.

Turkoglu M, Ilhan E, Oztezcan S, Kuru A, Aykac TG, Uysal M. Age related increases in plasma malondialdehyde and protein carbonyl levels and lymphocyte DNA damage in elderly subjects. *Clin Biochem.* 2003; 36(5):397-400.

Unutzer J. Late-life depression. *N Engl J Med.* 2007; 357(22): 2269-76.

Urso ML, Clarkson PM. Oxidative stress, exercise, and antioxidant supplementation. *Toxicology.* 2003; 189(1):41-54.

Uttara B, Singh AV, Zamboni P, Mahajan RT. Oxidative stress and neurodegenerative diseases: a review of upstream and downstream antioxidant therapeutic options. *Curr Neuropharmacol.* 2009; 7: 65–74.

Valko M, Dieter L, Jan M, Cronin MT, Mazur M, Telser J. Free radicals and antioxidants in normal physiological functions and human disease. *Int J BiochemCell Biol.* 2007;39:44–84.

van Gool CH, Kempen GI, Penninx BW, Deeg DJ, Beekman AT, van Eijk JT. Relationship between changes in depressive symptoms and unhealthy lifestyles in late middle aged and older persons: results from the Longitudinal Aging Study Amsterdam. *Age Ageing.* 2003; 32: 81–7.

Vavakova M, Durackova Z, and Trebaticka J. Markers of Oxidative Stress and Neuroprogression in Depression Disorder. *Hindawi Oxidative Medicine and Cellular Longevity.* 2015;1-12

Versace A, Andreazza AC, Young LT, Fournier JC, Almeida JR, Stiffler RS, *et al.* Elevated serum measures of lipid peroxidation and abnormal prefrontal

white matter in euthymic bipolar adults: toward peripheral biomarkers of bipolar disorder. *Mol Psychiatry*. 2014;19(2):200–8

Westerhof GJ, Bohlmeijer ET, McAdams DP. The relation of ego integrity and despair to personality traits and mental health. *J Gerontol: Series B*. 2017; 72(3):400-7.

Winarsi H. Antioksidan Alami dan Radikal Bebas, Cetakan ke-5. Yogyakarta: Penerbit Kanisius; 2007. Hal: 1-218.

Yanik M, Erel O, Kati M. The relationship between potency of oxidative stress and severity of depression. *Acta Neuropsychiatrica*. 2004; 16: 200-3.

Yoshimura R, Katsuki A, Atake K, Hori H, Igata R, Konishi Y. Plasma Levels of 3-Methoxy-4-Hydroxyphenylglycol and Relapse of Major Depressive Episode after Treatment with Milnacipran: One-Year Follow-Up Study. *J Depress Anxiety*. 2016; 1:24.

Zhao Z, Taylor WD, Styner M, Steffens DC, Krishnan KR, MacFall JR. Hippocampus shape analysis and late-life depression. *PLoS One*. 2008; 3(3):e1837.