

## DAFTAR PUSTAKA

- Adorini, L. (2005). Intervention in autoimmunity: The potential of vitamin D receptor agonists. *Cellular Immunology*, 233(2), 115–124.  
<https://doi.org/10.1016/j.cellimm.2005.04.013>
- Askari, G., Rafie, N., Miraghajani, M., Heidari, Z., & Arab, A. (2020). Association between vitamin D and dry eye disease: A systematic review and meta-analysis of observational studies. *Contact Lens and Anterior Eye*, 43(5), 418–425.  
<https://doi.org/10.1016/j.clae.2020.03.001>
- Bae, S. H., Shin, Y. J., Kim, H. K., Hyon, J. Y., Wee, W. R., & Park, S. G. (2016). Vitamin D Supplementation for Patients with Dry Eye Syndrome Refractory to Conventional Treatment. *Scientific Reports*, 6(October), 1–10.  
<https://doi.org/10.1038/srep33083>
- Balasopoulou, A., Kokkinos, P., Pagoulatos, D., Plotas, P., Makri, O. E., Georgakopoulos, C. D., Vantarakis, A., Li, Y., Liu, J. J., Qi, P., Rapoport, Y., Wayman, L. L., Chomsky, A. S., Joshi, R. S., Press, D., Rung, L., Ademola-popoola, D., Africa, S., Article, O., ... Loukovaara, S. (2017). Symposium Recent advances and challenges in the management of retinoblastoma Globe - saving Treatments. *BMC Ophthalmology*, 17(1), 1.  
<https://doi.org/10.4103/ijo.IJO>
- Bikle, D. D. (2020). Vitamin D: Newer concepts of its metabolism and function at the basic and clinical level. *Journal of the Endocrine Society*, 4(2), 1–20.  
<https://doi.org/10.1210/jendso/bvz038>
- Carroll, W. F., Fabres, J., Nagy, T. R., Frazier, M., Roane, C., Pohlandt, F., Carlo, W. A., & Thome, U. H. (2011). Results of extremely-low-birth-weight infants randomized to receive extra enteral calcium supply. *Journal of Pediatric Gastroenterology and Nutrition*, 53(3), 339–345.  
<https://doi.org/10.1097/MPG.0b013e3182187ecd>
- Chen, S., Sims, G. P., Chen, X. X., Gu, Y. Y., Chen, S., & Lipsky, P. E. (2007). Modulatory Effects of 1,25-Dihydroxyvitamin D<sub>3</sub> on Human B Cell Differentiation. *The Journal of Immunology*, 179(3), 1634–1647.  
<https://doi.org/10.4049/jimmunol.179.3.1634>
- Daniel, C., Sartory, N. A., Zahn, N., Radeke, H. H., & Stein, J. M. (2008). Immune modulatory treatment of trinitrobenzene sulfonic acid colitis with calcitriol is associated with a change of a T helper (Th) 1/Th17 to a Th2 and regulatory T cell profile. *Journal of Pharmacology and Experimental Therapeutics*, 324(1),

23–33. <https://doi.org/10.1124/jpet.107.127209>

- Deluca, H. F., & Cantorna, M. T. (2001). Vitamin D: its role and uses in immunology 1. *The FASEB Journal*, *15*(14), 2579–2585. <https://doi.org/10.1096/fj.01-0433rev>
- Dhungel, D., & Shrestha, G. S. (2017). Visual symptoms associated with refractive errors among Thangka artists of Kathmandu valley. *BMC Ophthalmology*, *17*(1), 1–8. <https://doi.org/10.1186/s12886-017-0659-0>
- Gwiazda, J., Norton, T. T., Hou, W., Hyman, L., Manny, R., Gwiazda, J., Norton, T., Deng, L., Grice, K., Fortunato, C., Weber, C., Beale, A., Kern, D., Bittinger, S., Ghosh, D., Smith, R., Pacella, R., Hyman, L., Cristina Leske, M., ... Taylor, C. (2016). Longitudinal Changes in Lens Thickness in Myopic Children Enrolled in the Correction of Myopia Evaluation Trial (COMET). *Current Eye Research*. <https://doi.org/10.3109/02713683.2015.1034372>
- HOLHOS, B. L., BUNGAU, S., TIT, D. M., VESA, C. M., BEHL, T., RAHDAR, A., LAZAR, L., & PUSTA, C. T. J. (2020). The correlation of vitamin d level with refractive errors in disabled paediatric patients. *Revista de Chimie*, *71*(8), 271–283. <https://doi.org/10.37358/RC.20.8.8300>
- Hou, W., Norton, T. T., Hyman, L., Gwiazda, J., Deng, L., Grice, K., Fortunato, C., Weber, C., Beale, A., Kern, D., Bittinger, S., Ghosh, D., Smith, R., Pacella, R., Leske, M. C., Hussein, M., Dong, L. M., Fazzari, M., Hou, W., ... Taylor, C. (2018). Axial elongation in myopic children and its association with myopia progression in the correction of myopia evaluation trial. *Eye and Contact Lens*. <https://doi.org/10.1097/ICL.0000000000000505>
- Hu, V., Leck, A., & Eaton, J. (2020). *Community Eye Health Journal eye health*. *33*(109), 21–25.
- Ismandari, F. (2018). Infodatin Situasi Gangguan Penglihatan. *Kementrian Kesehatan RI Pusat Data Dan Informasi*, 1–12. <https://pusdatin.kemkes.go.id/download.php?file=download/pusdatin/infodatin/infodatin-Gangguan-penglihatan-2018.pdf>
- Jeon, S., Lee, W. K., Lee, K., & Moon, N. J. (2012). Diminished ciliary muscle movement on accommodation in myopia. *Experimental Eye Research*, *105*, 9–14. <https://doi.org/10.1016/j.exer.2012.08.014>
- Jiang, X., O'Reilly, P. F., Aschard, H., Hsu, Y. H., Richards, J. B., Dupuis, J., Ingelsson, E., Karasik, D., Pilz, S., Berry, D., Kestenbaum, B., Zheng, J., Luan, J., Sofianopoulou, E., Streeten, E. A., Albanes, D., Lutsey, P. L., Yao, L., Tang, W., ... Kiel, D. P. (2018). Genome-wide association study in 79,366 European-

- ancestry individuals informs the genetic architecture of 25-hydroxyvitamin D levels. *Nature Communications*, 9(1). <https://doi.org/10.1038/s41467-017-02662-2>
- Jones, G. (2018). The discovery and synthesis of the nutritional factor vitamin D. *International Journal of Paleopathology*, 23(January), 96–99. <https://doi.org/10.1016/j.ijpp.2018.01.002>
- Kaimbo, D., & Kaimbo, W. (2014). *Classification , Diagnosis and Non-Surgical Treatment. February 2012*. <https://doi.org/10.13140/2.1.2027.3607>
- Lappe, J. M. (2011). The role of vitamin D in human health: A paradigm shift. *Complementary Health Practice Review*, 16(1), 58–72. <https://doi.org/10.1177/1533210110392952>
- MacDonald, H. M., Mavroiedi, A., Fraser, W. D., Darling, A. L., Black, A. J., Aucott, L., O'Neill, F., Hart, K., Berry, J. L., Lanham-New, S. A., & Reid, D. M. (2011). Sunlight and dietary contributions to the seasonal vitamin D status of cohorts of healthy postmenopausal women living at northerly latitudes: A major cause for concern? *Osteoporosis International*, 22(9), 2461–2472. <https://doi.org/10.1007/s00198-010-1467-z>
- Madrid-Costa, D., Wolffsohn, J. S., Ruiz-Alcocer, J., & De Gracia, P. (2019). Dry Eye Disease and Refractive Corrections. *Journal of Ophthalmology*, 2019, 2–4. <https://doi.org/10.1155/2019/2058618>
- Malik, Y. I., Malik, A., Shabbir, R., Zaman, A., & Talib, M. (2020). Role of Vitamin D in Near Sightedness. *Pakistan Journal of Ophthalmology*, 36(2), 137–141. <https://doi.org/10.36351/pjo.v36i2.990>
- Manson, J. A. E., Bassuk, S. S., Lee, I. M., Cook, N. R., Albert, M. A., Gordon, D., Zaharris, E., MacFadyen, J. G., Danielson, E., Lin, J., Zhang, S. M., & Buring, J. E. (2012). The VITamin D and OmegA-3 TriaL (VITAL): Rationale and design of a large randomized controlled trial of vitamin D and marine omega-3 fatty acid supplements for the primary prevention of cancer and cardiovascular disease. *Contemporary Clinical Trials*, 33(1), 159–171. <https://doi.org/10.1016/j.cct.2011.09.009>
- Manson, Joann E., Bassuk, S. S., Cook, N. R., Lee, I. M., Mora, S., Albert, C. M., & Buring, J. E. (2020). Vitamin D, Marine n-3 Fatty Acids, and Primary Prevention of Cardiovascular Disease Current Evidence. *Circulation Research*, 112–128. <https://doi.org/10.1161/CIRCRESAHA.119.314541>
- Manson, JoAnn E., Cook, N. R., Lee, I.-M., Christen, W., Bassuk, S. S., Mora, S., Gibson, H., Gordon, D., Copeland, T., D'Agostino, D., Friedenberg, G., Ridge,

- C., Bubes, V., Giovannucci, E. L., Willett, W. C., & Buring, J. E. (2019). Vitamin D Supplements and Prevention of Cancer and Cardiovascular Disease. *New England Journal of Medicine*, 380(1), 33–44. <https://doi.org/10.1056/nejmoa1809944>
- Manuscript, A. (2013). *NIH Public Access*. 37(10), 871–878. <https://doi.org/10.3109/02713683.2012.688235>.Enhancement
- Martinaityte, I., Kamycheva, E., Didriksen, A., Jakobsen, J., & Jorde, R. (2017). Vitamin D stored in fat tissue during a 5-year intervention affects serum 25-hydroxyvitamin d levels the following year. *Journal of Clinical Endocrinology and Metabolism*, 102(10), 3731–3738. <https://doi.org/10.1210/jc.2017-01187>
- Menshawey, E., Menshawey, R., & Azmy, O. (2021). Shedding light on vitamin D : the shared mechanistic and pathophysiological role between hypovitaminosis D and COVID - 19 risk factors and complications. *Inflammopharmacology*, 29(4), 1017–1031. <https://doi.org/10.1007/s10787-021-00835-6>
- Oliveira, C., Tello, C., Liebmann, J. M., & Ritch, R. (2005). Ciliary body thickness increases with increasing axial myopia. *American Journal of Ophthalmology*, 140(2), 324–325. <https://doi.org/10.1016/j.ajo.2005.01.047>
- Pellegrini, M., Senni, C., Bernabei, F., Cicero, A. F. G., Vagge, A., Maestri, A., Scordia, V., & Giannaccare, G. (n.d.). *Ocular Surface Diseases*. 1–16.
- Pike, J. W., & Christakos, S. (2017). Biology and Mechanisms of Action of the Vitamin D Hormone. *Endocrinology and Metabolism Clinics of North America*, 46(4), 815–843. <https://doi.org/10.1016/j.ecl.2017.07.001>
- Pilz, S., Zittermann, A., Trummer, C., Theiler-Schwetz, V., Lerchbaum, E., Keppel, M. H., Grübler, M. R., März, W., & Pandis, M. (2019). Vitamin D testing and treatment: A narrative review of current evidence. *Endocrine Connections*, 8(2), R27–R43. <https://doi.org/10.1530/EC-18-0432>
- Poeran. (2017). HHS Public Access. *Physiology & Behavior*, 176(12), 139–148. <https://doi.org/10.1016/j.exer.2015.02.019>.Vitamin
- Read, S. A., Collins, M. J., & Carney, L. G. (2007). A review of astigmatism and its possible genesis: Invited review. *Clinical and Experimental Optometry*, 90(1), 5–19. <https://doi.org/10.1111/j.1444-0938.2007.00112.x>
- Rigby, W. F. C., Stacy, T., & Fanger, M. W. (1984). Inhibition of T lymphocyte mitogenesis by 1,25-dihydroxyvitamin D3 (calcitriol). *Journal of Clinical Investigation*, 74(4), 1451–1455. <https://doi.org/10.1172/JCI111557>
- Rozema, J. J., & Ní Dhubhghaill, S. (2020). Age-related axial length changes in

- adults: a review. *Ophthalmic and Physiological Optics*, 40(6), 710–717.  
<https://doi.org/10.1111/opo.12728>
- Saka, N., Ohno-Matsui, K., Shimada, N., Sueyoshi, S. I., Nagaoka, N., Hayashi, W., Hayashi, K., Moriyama, M., Kojima, A., Yasuzumi, K., Yoshida, T., Tokoro, T., & Mochizuki, M. (2010). Long-term changes in axial length in adult eyes with pathologic myopia. *American Journal of Ophthalmology*, 150(4), 562-568.e1.  
<https://doi.org/10.1016/j.ajo.2010.05.009>
- Schiefer, U., Kraus, C., Baumbach, P., Ungewiß, J., & Michels, R. (2016). Refractive errors - Epidemiology, effects and treatment options. *Deutsches Arzteblatt International*, 113(41), 693–701. <https://doi.org/10.3238/arztebl.2016.0693>
- Schiffman, R. M., Christianson, M. D., Jacobsen, G., Hirsch, J. D., & Reis, B. L. (2000). Reliability and validity of the ocular surface disease index. *Archives of Ophthalmology*, 118(5), 615–621. <https://doi.org/10.1001/archophth.118.5.615>
- Seen, S. (2018). *Dry eye disease and oxidative stress. Masoro 2000*, 412–420.  
<https://doi.org/10.1111/aos.13526>
- Sergienko, N. M., & Shargorogska, I. (2012). The scleral rigidity of eyes with different refractions. *Graefe's Archive for Clinical and Experimental Ophthalmology*, 250(7), 1009–1012. <https://doi.org/10.1007/s00417-012-1973-0>
- Sheppard, A. L., & Davies, L. N. (2010). In vivo analysis of ciliary muscle morphologic changes with accommodation and axial ametropia. *Investigative Ophthalmology and Visual Science*, 51(12), 6882–6889.  
<https://doi.org/10.1167/iovs.10-5787>
- Supiyaphun, C., Id, P. J., & Rattanasiri, S. (2021). *Prevalence and risk factors of dry eye disease among University Students in Bangkok* ., 1–9.  
<https://doi.org/10.1371/journal.pone.0258217>
- Tideman, J. W. L., Polling, J. R., Voortman, T., Jaddoe, V. W. V., Uitterlinden, A. G., Hofman, A., Vingerling, J. R., Franco, O. H., & Klaver, C. C. W. (2016). Low serum vitamin D is associated with axial length and risk of myopia in young children. *European Journal of Epidemiology*, 31(5), 491–499.  
<https://doi.org/10.1007/s10654-016-0128-8>
- Toosi, K. (2014). NIH Public Access. *Bone*, 23(1), 1–7.  
<https://doi.org/10.1097/OPX.0b013e31820b0385.Blood>
- Upadhyay, S. (2015). Myopia, Hyperopia and Astigmatism: A Complete Review with View of Differentiation. *International Journal of Science and Research (IJSR)*, 4(8), 125. [www.ijsr.net](http://www.ijsr.net)

- Wang, Y., Huang, C., Tseng, Y., Zhong, J., & Li, X. (2021). Refractive Error and Eye Health: An Umbrella Review of Meta-Analyses. *Frontiers in Medicine*, 8(November), 1–12. <https://doi.org/10.3389/fmed.2021.759767>
- Yang, C. H., Albiets, J., Harkin, D. G., Kimlin, M. G., & Schmid, K. L. (2018). Impact of oral vitamin D supplementation on the ocular surface in people with dry eye and/or low serum vitamin D. *Contact Lens and Anterior Eye*, 41(1), 69–76. <https://doi.org/10.1016/j.clae.2017.09.007>
- Zsolt, G. (2021). *Role of Vitamin D in Cognitive Dysfunction : New Molecular Concepts and Discrepancies between Animal and Human Findings*. 1–24.



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI  
 UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN  
 KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN  
 RSPTN UNIVERSITAS HASANUDDIN  
 RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR  
 Sekretariat : Lantai 2 Gedung Laboratorium Terpadu  
 IL PERINTIS KEMEROGAAN KAMPUS TAMALAMBIA KALIA MAKASSAR 90245.



Contact Person: dr. Agussalim Bukhari, M.Med.Ph.D., Sp.GK, TTSJ, DRI241850858, 0411 578103, Fax: 0411 581431

**REKOMENDASI PERSETUJUAN ETIK**

Nomor : 286/UN4.6.4.5.31/PP36/2022

Tanggal: 16 Juni 2022

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH22040186	No Sponsor	Protokol
Peneliti Utama	dr. Irma Noviana Iskandar	Sponsor	
Judul Peneliti	Perbandingan Efek Terapi Tunggal Lyteers (Sodium Chloride Dan Potassium Chloride) Dengan Kombinasi Lyteers Dan Vitamin D (D3 Choliciferol) Pada Penderita Gangguan Refraksi Yang Mengalami Dry Eye		
No Versi Protokol	2	Tanggal Versi	14 Juni 2022
No Versi PSP	2	Tanggal Versi	14 Juni 2022
Tempat Penelitian	RS Universitas Hasanuddin Makassar		
Jenis Review	<input type="checkbox"/> Exempted <input type="checkbox"/> Expedited <input checked="" type="checkbox"/> Fullboard Tanggal 19 Mei 2022	Masa Berlaku 16 Juni 2022 sampai 16 Juni 2023	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Nama Prof.Dr.dr. Saryani As'ad, M.Sc.,Sp.GK (K)	Tanda tangan	
Sekretaris KEP Universitas Hasanuddin	Nama dr. Agussalim Bukhari, M.Med.,Ph.D.,Sp.GK (K)		

**Kewajiban Peneliti Utama:**

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 jam dan dilengkapi dalam 7 hari dan Laporan SUSAR dalam 72 jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
- Menyerahkan laporan akhir setelah Penelitian berakhir
- Melaporkan penyimpangan dari protokol yang disetujui (protocol deviation / violation)
- Menatuhi semua peraturan yang ditentukan



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN  
 UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN  
 KOMITE ETIK PENELITIAN KESEHATAN  
 RSPTN UNIVERSITAS HASANUDDIN  
 RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR



Sekretariat : Lantai 2 Gedung Laboratorium Terpadu  
 JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90245.  
 Contact Person: dr. Agussalim Bukhari.,MMed,PhD, SpGK TELP. 081241850858, 0411 5780103. Fax : 0411-581431

**FORMULIR PERSETUJUAN SETELAH PENJELASAN**

Saya yang bertandatangan di bawah ini :

Nama :  
 Umur :  
 Telp/No.HP :  
 Alamat :  
 Pekerjaan :

Setelah mendengar/membaca dan mengerti penjelasan yang diberikan mengenai tujuan, manfaat, dan apa yang akan dilakukan pada penelitian ini, menyatakan setuju untuk ikut dalam penelitian ini secara sukarela tanpa paksaan.

Saya tahu bahwa keikutsertaan saya ini bersifat sukarela tanpa paksaan, sehingga saya bisa menolak ikut atau mengundurkan diri dari penelitian ini. Saya berhak bertanya atau meminta penjelasan pada peneliti bila masih ada hal yang belum jelas atau masih ada hal yang ingin saya ketahui tentang penelitian ini.

Saya juga mengerti bahwa semua biaya yang dikeluarkan sehubungan dengan penelitian ini, akan ditanggung oleh peneliti. Saya percaya bahwa keamanan dan kerahasiaan data penelitian akan terjamin dan saya dengan ini menyetujui semua data saya yang dihasilkan pada penelitian ini untuk disajikan dalam bentuk lisan maupun tulisan.

Dengan membubuhkan tanda tangan saya di bawah ini, saya menegaskan keikut-sertaan saya secara sukarela dalam studi penelitian ini.

	Nama	Tanda tangan	Tgl/Bln/Thn
Responden/ Pasien	.....	.....	.....
Saksi/Wali	.....	.....	.....



Kuesioner *Ocular Surface Diseases Index* (Vroman et al., 2005)

Apakah Bapak/Ibu mengalami hal-hal tersebut dibawah ini dalam sepekan terakhir?		selalu	sering	kadang	Jarang	Tidak	
1.	Mata terasa sensitive bila terkena cahaya						
2.	Mata terasa berpasir?						
3.	Mata terasa nyeri atau kering?						
4.	Penglihatan kurang tajam / tidak enak						
	Penglihatan buruk						
Apakah Bapak/Ibu mengalami masalah dengan mata pada saat melakukan aktivitas berikut selama sepekan terakhir?		selalu	sering	kadang	Jarang	Tidak	Tidak ada jawaban
6.	Membaca?						
7.	Berjalan/ mengemudi pada malam hari?						
8.	Bekerja pada computer / menjahit?						
9.	Menonton televisi?						
Apakah Bapak/Ibu merasakan ketidaknyamanan pada kondisi lingkungan tertentu selama sepekan terakhir?		selalu	sering	kadang	Jarang	Tidak	
10.	Kondisi lingkungan berangin?						
11.	Kondisi lingkungan yang sangat kering seperti lapangan terbuka?						
12.	Kondisi lingkungan ber-AC?						