

REFERENCES:

- Achterhof, A. B., Rozsnyai, Z., Reeve, E., Jungo, K. T., Floriani, C., Poortvliet, R. K. E., Rodondi, N., Gussekloo, J., & Streit, S. (2020). Potentially inappropriate medication and attitudes of older adults towards deprescribing. *PLoS ONE*, 15(10 October), 1–14. <https://doi.org/10.1371/journal.pone.0240463>
- Ahmed, B., Nanji, K., Mujeeb, R., & Patel, M. J. (2014). Effects of polypharmacy adverse drug reactions among geriatric outpatients at a tertiary care Hospital in Karachi: A prospective cohort study. *PLoS ONE*, 9(11), 1–7. <https://doi.org/10.1371/journal.pone.0112133>
- Al-Azayzih A, Alamoori R, Altawalbeh SM. Potentially inappropriate medications prescribing according to Beers criteria among elderly outpatients in Jordan: a cross sectional study. *Pharm Pract (Granada)*. 2019;17(2):1439. doi:10.18549/PharmPract.2019.2.1439
- Adioetomo, SM dan Mujahid, G. (2014). “UNFPA Indonesia Monograph series no.1: Indonesia on the threshold of population ageing”. Jakarta: UNFPA Indonesia
- Amarya, S., Singh, K. and Sabharwal, M., 2018. Ageing process and physiological changes. In *Gerontology*. IntechOpen., doi:10.5772/intechopen.76249
- Duraković, Z. and Vitezić, D. (2013) ‘Pharmacodynamics and pharmacokinetics in the elderly’, *Periodicum Biologorum*, 115(4), pp. 517–520.
- Bolboacă, Sorana D.; Jäntschi, Lorentz; Sestraş, Adriana F.; Sestraş, Radu E.; Pamfil, Doru C. (2011). Pearson-Fisher Chi-Square Statistic Revisited. *Information*, 2(3), 528–545. doi:10.3390/info2030528
- Campanelli, Christine M; Fick, Donna M; Semla, Todd; Beizer, Judith (2012). Potentially Inappropriate Medication Use in Older Adults: The American Geriatrics Society 2012 Beers Criteria. *J Am Geriatr Soc*, 60(4), 616–631. doi: 10.1111/j.1532-5415.2012.03923.x.American
- Campbell S, Greenwood M, Prior S, et al. Purposive sampling: complex or simple? Research case examples. *J Res Nurs*. 2020;25(8):652-661. doi:10.1177/1744987120927206
- Floroff CK, Slattum PW, Harpe SE, Taylor P, Brophy GM. Potentially inappropriate medication use is associated with clinical outcomes in critically ill elderly patients with neurological injury. *Neurocrit Care*. 2014;21(3):526-533. doi:10.1007/s12028-014-9985-8
- Chan, F.Wk., Wong, F.Yy., So, W.Y. et al. How much do elders with chronic conditions know about their medications? *BMC Geriatric* 13, 59 (2013). <https://doi.org/10.1186/1471-2318-13-59>

- Chang, C.-B., Lai, H.-Y., Hwang, S.-J., Yang, S.-Y., Wu, R.-S., Chang, L.-Y., Lee, I.-S., Liu, H.-C., & Chan, D.-C. (2019). The updated PIM-Taiwan criteria: a list of potentially inappropriate medications in older people. *Therapeutic Advances in Chronic Disease*. <https://doi.org/10.1177/2040622319879602>
- Charan, J., & Biswas, T. (2013). How to calculate sample size for different study designs in medical research? *Indian Journal of Psychological Medicine*, 35(2), 121–126. <https://doi.org/10.4103/0253-7176.116232>
- Christiani, Y. (2017). Ageing and Chronic Disease in Indonesia—Assessing and Responding To Inequity. *Innovation in Aging*, Volume 1, Issue suppl_1, July 2017, Page 999, <https://doi.org/10.1093/geroni/igx004.362>
- Detecting, A. G. T. O., & Drug, R. A. (2003). Safety of medicines a guide to detecting and reporting adverse drug.
- Duerden, M & Payne, R & Avery, T. (2013). Polypharmacy and Medicines Optimisation. King's Fund Report, November 2013. 10.13140/RG.2.1.1597.0726.
- Dziechciaż, M., & Filip, R. (2014). Biological psychological and social determinants of old age: Bio-psycho-social aspects of human aging. *Annals of Agricultural and Environmental Medicine*, 21(4), 835–838. <https://doi.org/10.5604/12321966.1129943>
- Elbarbry, F. (2015). Oral Bioavailability in Special Populations. *MOJ Bioequivalence & Bioavailability*. 1(3), 49–52. <https://doi.org/10.15406/mojbb.2015.01.00012>
- Fick, D. M., Semla, T. P., Steinman, M., Beizer, J., Brandt, N., Dombrowski, R., DuBeau, C. E., Pezzullo, L., Epplin, J. J., Flanagan, N., Morden, E., Hanlon, J., Hollmann, P., Laird, R., Linnebur, S., & Sandhu, S. (2019). American Geriatrics Society 2019
- Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults. *Journal of the American Geriatrics Society*, 67(4), 674–694. <https://doi.org/10.1111/jgs.15767>
- Hailu, B.Y., Berhe, D.F., Gudina, E.K. et al. Drug related problems in admitted geriatric patients: the impact of clinical pharmacist interventions. *BMC Geriatr* 20, 13 (2020). <https://doi.org/10.1186/s12877-020-1413-7>
- Heider D, Matschinger H, Meid AD, et al. The impact of potentially inappropriate medication on the development of health care costs and its moderation by the number of prescribed substances. Results of a retrospective matched cohort study. *PLoS One*. 2018;13(7):e0198004. Published 2018 Jul 31. doi:10.1371/journal.pone.0198004

- Hubbard, R. E., Mahony, M. S. O., & Woodhouse, K. W. (2012). Medication prescribing in frail older people. <https://doi.org/10.1007/s00228-012-1387>
- Page RL 2nd, Linnebur SA, Bryant LL, Ruscin JM. Inappropriate prescribing in the hospitalized elderly patient: defining the problem, evaluation tools, and possible solutions. *Clin Interv Aging*. 2010;5:75-87. Published 2010 Apr 7. doi:10.2147/cia.s9564
- Page RL 2nd, Ruscin JM. The risk of adverse drug events and hospital-related morbidity and mortality among older adults with potentially inappropriate medication use. *Am J Geriatr Pharmacotherapy*. 2006;4(4):297-305. doi:10.1016/j.amjopharm.2006.12.008
- Khezrian M, McNeil CJ, Murray AD, Myint PK. An overview of prevalence, determinants and health outcomes of polypharmacy. *Ther Adv Drug Saf*. 2020;11:2042098620933741. Published 2020 Jun 12. doi:10.1177/2042098620933741
- Lavan, A. H., & Gallagher, P. (2016). Predicting risk of adverse drug reactions in older adults. *Therapeutic Advances in Drug Safety*, 7(1), 11–22. <https://doi.org/10.1177/2042098615615472>
- Lenander C, Bondesson Å, Viberg N, Beckman A, Midlöv P. Effects of medication reviews on use of potentially inappropriate medications in elderly patients; a cross- sectional study in Swedish primary care. *BMC Health Serv Res*. 2018;18(1):616. Published 2018 Aug 7. doi:10.1186/s12913-018-3425-y
- Lim, Y. J., Kim, H. Y., Choi, J., Lee, J. S., Ahn, A. L., Oh, E. J., Cho, D. Y., & Kweon, H. J. (2016). Potentially inappropriate medications by beers criteria in older outpatients: Prevalence and risk factors. *Korean Journal of Family Medicine*, 37(6), 329–333. <https://doi.org/10.4082/kjfm.2016.37.6.329>
- Lin, H., Lin, C., Chang, C., Chou, C., Yu, I., Lin, C., & Li, T. (2018). ScienceDirect Economic outcomes of pharmacist-physician medication therapy management for polypharmacy elderly :A prospective , randomized, controlled trial. *Journal of the Formosan Medical Association*, 117(3), 235–243. <https://doi.org/10.1016/j.jfma.2017.04.017>
- Fahrni ML, Azmy MT, Usir E, Aziz NA, Hassan Y. Inappropriate prescribing defined by STOPP and START criteria and its association with adverse drug events among hospitalized older patients: A multicentre, prospective study. *PLoS One*. 2019;14(7):e0219898. Published 2019 Jul 26. doi:10.1371/journal.pone.0219898.

- Mangoni, A. A., & Jackson, S. H. D. (2004). Age-related changes in pharmacokinetics and pharmacodynamics: Basic principles and practical applications. *British Journal of Clinical Pharmacology*, 57(1), 6–14. <https://doi.org/10.1046/j.1365-2125.2003.02007.x>
- Maresova, P., Javanmardi, E., Barakovic, S., Barakovic Husic, J., Tomsone, S., Krejcar, O., & Kuca, K. (2019). Consequences of chronic diseases and other limitations associated with old age - A scoping review. *BMC Public Health*, 19(1). <https://doi.org/10.1186/s12889-019-7762-5>
- Masnoon, N., Shakib, S., Kalisch-Ellett, L., & Caughey, G. E. (2017). What is polypharmacy? A systematic review of definitions. *BMC Geriatrics*, 17(1), 1–10. <https://doi.org/10.1186/s12877-017-0621-2>
- Massoud, L., Agha, H. Al, & Taleb, M. (2017). Pharmacokinetic and pharmacodynamic changes in elderly people. *WJPMR*, 3(11), 14–23.
- Nair, N. P., Chalmers, L., Peterson, G. M., Bereznicki, B. J., Castelino, R. L., & Bereznicki, L. R. (2016). Hospitalization in older patients due to adverse drug reactions – the need for a prediction tool. 497–505.
- Nguyen, T., Wong, E., & Ciummo, F. (2020). Polypharmacy in Older Adults: Practical Applications Alongside a Patient Case. *Journal for Nurse Practitioners*, 16(3), 205–209. <https://doi.org/10.1016/j.nurpra.2019.11.017>
- Oscanoa, T. J., Lizaraso, F., & Carvajal, A. (2017). Hospital admissions due to adverse drug reactions in the elderly. A meta-analysis. *European Journal of Clinical Pharmacology*, 73(6), 759–770. <https://doi.org/10.1007/s00228-017-2225-3>
- Osei, E. K., Berry-cabán, C. S., Haley, C. L., & Rhodes-pope, H. (2016). Prevalence of Beers Criteria Medications Among Elderly Patients in a Military Hospital. <https://doi.org/10.1177/2333721416637790>
- Patton, L. L. (n.d.). The ADA Practical Guide to Patients with Medical Conditions. Process, A. (2018). Ageing Process Process and and Physiological Physiological Changes Shilpa. 3–24. <https://doi.org/10.5772/intechopen.76249>
- Rankin, A., Ca, C., Sm, P., Kerse, N., Cr, C., Mc, B., Ryan, C., Hughes, C., Rankin, A., Ca, C., Sm, P., Kerse, N., Cr, C., Mc, B., Ryan, C., & Hughes, C. (2018). Interventions to improve the appropriate use of polypharmacy for older people (Review). <https://doi.org/10.1002/14651858.CD008165.pub4.www.cochrnelibrary.com>

- Rochon, P. A., Petrovic, M., Cherubini, A., Onder, G., Mahony, D. O., Sternberg, S. A., Stall, N. M., & Gurwitz, J. H. (2021). Review Polypharmacy , inappropriate prescribing , and deprescribing in older people : through a sex and gender lens. *The Lancet Healthy Longevity*, 2(5), e290–e300. [https://doi.org/10.1016/S2666-7568\(21\)00054-4](https://doi.org/10.1016/S2666-7568(21)00054-4)
- Roux, B., Sirois, C., Simard, M., Gagnon, M. E., & Laroche, M. L. (2020). Potentially inappropriate medications in older adults: a population-based cohort study. *Family Practice*, 37(2), 173–179. <https://doi.org/10.1093/fampra/cmz060>
- Shah, B. M., & Hajjar, E. R. (2012). Drug Reactions , and. *CGM*, 28(2), 173–186. <https://doi.org/10.1016/j.cger.2012.01.002>
- Singh, S., & Bajorek, B. (2014). Defining “elderly” in clinical practice guidelines for pharmacotherapy. *Pharmacy Practice (Internet)*, 12(4), 0–0. <https://doi.org/10.4321/s1886-36552014000400007>
- Varga, S., Alcusky, M., Keith, S. W., Hegarty, S. E., Del Canale, S., Lombardi, M., & Maio, V. (2017). Hospitalization rates during potentially inappropriate medication use in a large population-based cohort of older adults. *British Journal of Clinical Pharmacology*, 83(11), 2572–2580. <https://doi.org/10.1111/bcp.13365>
- Vetrano, D. L., Landi, F., Buyser, S. L. De, Carfi, A., Zuccalà, G., Petrovic, M., Volpato, S., Cherubini, A., Corsonello, A., Bernabei, R., & Onder, G. (2014). European Journal of Internal Medicine Predictors of length of hospital stay among older adults admitted to acute care wards : a multicentre observational study. *European Journal of Internal Medicine*, 25(1), 56–62. <https://doi.org/10.1016/j.ejim.2013.08.709>
- Vukovic, M., & Jovanovic, M. (2020). Potentially Inappropriate Medications in Nursing Home Residents : A Comparison of Two Approaches. <https://doi.org/10.1177/0163278719900653>
- Wastesson, J. W., Canudas-romo, V., Lindahl-jacobsen, R., & Johnell, K. (2015). Remaining Life Expectancy With and Without Polypharmacy : A Register-Based Study of Swedes Aged 65 Years and Older. *Journal of the American Medical Directors Association*, 1–5. <https://doi.org/10.1016/j.jamda.2015.07.015>
- Wastesson, J. W., Morin, L., Tan, E. C. K., Johnell, K., Wastesson, J. W., Morin, L., Tan, E. C. K., & Johnell, K. (2018). Expert Opinion on Drug Safety An update on the clinical consequences of polypharmacy in older adults : a narrative review 0338. <https://doi.org/10.1080/14740338.2018.1546841>

- Xing, X. X., Zhu, C., Liang, H. Y., Wang, K., Chu, Y. Q., Zhao, L. B., Jiang, D. C., Wang, Y. Q., & Yan, S. Y. (2019). Associations Between Potentially Inappropriate Medications and Adverse Health Outcomes in the Elderly: A Systematic Review and Meta-analysis .45. <https://doi.org/10.1177/1060028019853069> Jonathan Sarwono, Quantitative and Qualitative Research Methods, Page no.68
- Linnebur, S., & Sandhu, S. (2019). American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults. *Journal of the American Geriatrics Society*, 67(4), 674–694. <https://doi.org/10.1111/jgs.15767>
- Morgan, S. G., Hunt, J., Rioux, J., Proulx, J., Weymann, D., & Tannenbaum, C. (2016). Frequency and cost of potentially inappropriate prescribing for older adults: a cross-sectional study. *CMAJ Open*, 4(2), E346–E351. <https://doi.org/10.9778/cmajo.20150131>
- Oscanoa, T. J., Lizaraso, F., & Carvajal, A. (2017). Hospital admissions due to adverse drug reactions in the elderly. A meta-analysis. *European Journal of Clinical Pharmacology*, 73(6), 759–770. <https://doi.org/10.1007/s00228-017-2225-3>
- Burkhardt, H.; Bojarsky, G.; Gretz, N.; Gladisch, R. Creatinine Clearance, Cockcroft- Gault Formula and Cystatin C: Estimators of True Glomerular Filtration Rate in the Elderly? *Gerontology* 2002, 48, 140–146.
- Roux, B., Sirois, C., Simard, M., Gagnon, M. E., & Laroche, M. L. (2020). Potentially inappropriate medications in older adults: a population-based cohort study. *Family Practice*, 37(2), 173–179. <https://doi.org/10.1093/fampra/cmz060>
- Momin, T., Pandya, R., Researcher, I., Rana, D. A., & Patel, V. (2013). Use of potentially inappropriate medications in hospitalized elderly at a teaching hospital : A comparison between Beers 2003 and 2012 criteria. December. <https://doi.org/10.4103/0253-7613.121372>
- Charan, J., & Biswas, T. (2013). How to calculate sample size for different study designs in medical research? *Indian Journal of Psychological Medicine*, 35(2), 121–126. <https://doi.org/10.4103/0253-7176.116232>
- Amarya, S., Singh, K., & Sabharwal, M. (2018). Ageing Process and Physiological Changes. *Gerontology*. <https://doi.org/10.5772/INTECHOPEN.76249>
- Biologorum, P., & Vitezi, D. (2016). Pharmacodynamics and pharmacokinetics in the elderly. December 2013.
- Duerden, M., & Payne, R. (2014). Polypharmacy - what is it and how common is it? *Prescriber*, 25(21), 44–47. <https://doi.org/10.1002/psb.1274>

- Dziechciaż, M., & Filip, R. (2014). Biological psychological and social determinants of old age: Bio-psycho-social aspects of human aging. *Annals of Agricultural and Environmental Medicine*, 21(4), 835–838. <https://doi.org/10.5604/12321966.1129943>
- Elbarbry, F. (2015). Oral bioavailability in special populations. 1(3), 49–52. <https://doi.org/10.15406/mojbb.2015.01.00012>
- Khezrian, M., Mcneil, C. J., Murray, A. D., & Myint, P. K. (2020). An overview of prevalence , determinants and health outcomes of polypharmacy. 1–10. <https://doi.org/10.1177>
- Lin, H., Lin, C., Chang, C., Chou, C., Yu, I., Lin, C., & Li, T. (2018). ScienceDirect Economic outcomes of pharmacist-physician medication therapy managementfor polypharmacy elderly : A prospective , randomized , controlled trial. *Journal of the Formosan Medical Association*, 117(3), 235–243. <https://doi.org/10.1016/j.jfma.2017.04.017>
- Nguyen, T., Wong, E., & Ciummo, F. (2020). Polypharmacy in Older Adults: Practical Applications Alongside a Patient Case. *Journal for Nurse Practitioners*, 16(3), 205–209. <https://doi.org/10.1016/j.nurpra.2019.11.017>
- Nobili, A., Garattini, S., & Mannucci, P. M. (2011). Multiple diseases and polypharmacy in the elderly : challenges for the internist of the third millennium. 28–44.
- Patton, L. L. (n.d.). *The ADA Practical Guide to Patients with Medical Conditions*. Rankin, A., Ca, C., Sm, P., Kerse, N., Cr, C., Mc, B., Ryan, C., Hughes, C., Rankin
- Shah, B. M., & Hajjar, E. R. (2012). Drug Reactions , and. *CGM*, 28(2), 173–186. <https://doi.org/10.1016/j.cger.2012.01.002>
- Singh, S., & Bajorek, B. (2014). Defining “elderly” in clinical practice guidelines for pharmacotherapy. *Pharmacy Practice (Internet)*, 12(4), 0–0. <https://doi.org/10.4321/s1886-36552014000400007>
- Wastesson, J. W., Morin, L., Tan, E. C. K., Johnell, K., Wastesson, J. W., Morin, L., Tan, E. C. K., & Johnell, K. (2018). Expert Opinion on Drug Safety An update on the clinical consequences of polypharmacy in older adults : a narrative review. 0338. <https://doi.org/10.1080/14740338.2018.1546841>
- Iwamoto T, Hanyu H, Umahara T. [Age-related changes of sensory system]. *Nihon Rinsho*. 2013 Oct;71(10):1720-5. Japanese. PMID: 24261198
- Yellowitz, J. A., & Schneiderman, M. T. (2014). Elder's oral health crisis. *The journal of evidence-based dental practice*, 14 Suppl, 191–200. <https://doi.org/10.1016/j.jebdp.2014.04.011>

- Beverly, E. A., Ritholz, M. D., Shepherd, C., & Weinger, K. (2016). The Psychosocial Challenges and Care of Older Adults with Diabetes: "Can't Do What I Used To Do; Can't Be Who I Once Was". *Current diabetes reports*, 16(6), 48. <https://doi.org/10.1007/s11892-016-0741-7>
- Elbarbry, F. (2015). Oral bioavailability in special populations. 1(3), 49–52. <https://doi.org/10.15406/mojbb.2015.01.00012>
- Bryant E, Claire K, Needham R. *The Pharmaceutical Journal*. 2019. December 2019, Vol 303, No 7932;303(7932)
- Coleman, J. J., & Pontefract, S. K. (2016). Adverse drug reactions. *Clinical medicine* (London, England), 16(5), 481–485. <https://doi.org/10.7861/clinmedicine.16-5-481>
- Hubbard, R. E., Mahony, M. S. O., & Woodhouse, K. W. (2012). Medication prescribing in frail older people. <https://doi.org/10.1007/s00228-012-1387>
- Indonesian Ministry of Health. (2004). *Guidelines for Pharmaceutical Services (Drug Therapy Management) for Geriatric Patients*. Jakarta: Directorate of Community and Clinical Pharmacy Development Directorate General of Pharmacy and Medical Devices RI
- Allredge, B.K., Corelli, R.L, dan Ernst, M.E (Editor), 2013. *Applied Therapeutics: The Clinical Use of Drugs*. Wolters Kluwer/Lippincott Williams & Wilkins, Philadelphia, 10: 2359-2373.
- Davies, E.A. dan O'Mahony, M.S., 2015. Adverse drug reactions in special populations – the elderly. *British Journal of Clinical Pharmacology*, 80(4): 796-807.
- Lenander, C., Bondesson, Å., Viberg, N., Beckman, A., & Midlöv, P. (2018). Effects of medication reviews on use of potentially inappropriate medications in elderly patients ; a cross-sectional study in Swedish primary care. 1–10.
- Al-azayzih, A. (2019). Potentially inappropriate medications prescribing according to Beers criteria among elderly outpatients in Jordan : a cross sectional study. 17(2),1–7.
- Hailu, B. Y., Berhe, D. F., Gudina, E. K., Gidey, K., & Getachew, M. (2020). Drug-related problems in admitted geriatric patients : the impact of clinical pharmacist interventions. 1–8.
- Huri, H.Z., Hui Xin, C., dan Sulaiman, C.Z., 2014. Drug-Related Problems in Patients with Benign Prostatic Hyperplasia: a cross sectional retrospective study. *PloS One*, 9: e86215.

- Rochon, P. A., Petrovic, M., Cherubini, A., Onder, G., Mahony, D. O., Sternberg, S. A., Stall, N. M., & Gurwitz, J. H. (2021). Review Polypharmacy , inappropriate prescribing , and deprescribing in older people : through a sex and gender lens. *The Lancet Healthy Longevity*, 2(5), e290–e300. [https://doi.org/10.1016/S2666-7568\(21\)00054-4](https://doi.org/10.1016/S2666-7568(21)00054-4)
- Duerden M, Avery T, Payne R. Polypharmacy and medicines optimization: making it safe and sound. 2013. https://www.Kingsfund.org.uk/sites/files/kf/field/field_publication_file/polypharmacy-and-medicines-optimisation-king's-fund-nov-13.pdf (accessed Sept 8, 2020).
- Heider, D., Matschinger, H., Meid, A. D., Quinzler, R., Adler, B., Gu, C., Haefeli, W. E., & Ko, H. (2018). The impact of potentially inappropriate medication on the development of health care costs and its moderation by the number of prescribed substances . Results of a retrospective matched cohort study. 1– 12.
- Loganathan, M., Id, F., Azmy, M. T., & Usir, E. (2019). Inappropriate prescribing defined by STOPP and START criteria and its association with adverse drug events among hospitalized older patients : A multicentre , prospective study.1–20.
- Vetrano, D. L., Landi, F., Buyser, S. L. De, Carfi, A., Zuccalà, G., Petrovic, M., Volpato, S., Cherubini, A., Corsonello, A., Bernabei, R., & Onder, G. (2014). European Journal of Internal Medicine Predictors of length of hospital stay among older adults admitted to acute care wards : a multicentre observational study. *European Journal of Internal Medicine*, 25(1), 56–62. <https://doi.org/10.1016/j.ejim.2013.08.709>
- Chang, C., Lai, H., Hwang, S., Yang, S., & Wu, R. (2019). The updated PIM-Taiwan criteria : a list of potentially inappropriate medications in older people. 1–21. <https://doi.org/10.1177/2040622319879602>
- Xing, X. X., Zhu, C., Liang, H. Y., Wang, K., Chu, Y. Q., Zhao, L. B., Jiang, D. C., Wang, Y. Q., & Yan, S. Y. (2019). Associations Between Potentially Inappropriate Medications and Adverse Health Outcomes in the Elderly : A Systematic Review and Meta-analysis 45. <https://doi.org/10.1177/1060028019853069>
- Masnoon, N., Shakib, S., Kalisch-Ellett, L., & Caughey, G. E. (2017). What is polypharmacy? A systematic review of definitions. *BMC Geriatrics*, 17(1), 1–10. <https://doi.org/10.1186/s12877-017-0621-2>
- Care, N., Harpe, S. E., Taylor, P., & Brophy, G. M. (2014). Potentially Inappropriate Medication Use is Associated with Clinical Outcomes in Critically Ill Elderly Patients with Neurological Injury. <https://doi.org/10.1007/s12028-014-9985-8>

- Marcum, Z. A., & Hanlon, J. T. (2012). Commentary on the new American Geriatric Society Beers criteria for potentially inappropriate medication use in older adults. *The American journal of geriatric pharmacotherapy*, 10(2), 151–159. <https://doi.org/10.1016/j.amjopharm.2012.03.002>
- Fixen, D. R. (2019). 2019 AGS Beers Criteria for older adults. *Pharmacy Today*, 25(11), 42–54. <https://doi.org/10.1016/j.ptdy.2019.10.022C>. Investigation, “American Geriatrics Society 2019 Updated AGS Beers Criteria ®,” pp. 1–21, 2019, doi: 10.1111/jgs.15767.
- Awad, Hanna.,(2019) Potentially inappropriate medication use among geriatric patients in primary care setting: A cross-sectional study using the Beers, STOPP, FORTA and MAI criteria. *PLOS ONE* 14(6):e0218174. <https://doi.org/10.1371/journal.pone.0218174>
- Nair, N. P., Chalmers, L., Peterson, G. M., Bereznicki, B. J., Castelino, R. L., & Bereznicki, L. R. (2016). Hospitalization in older patients due to adverse drug reactions – the need for a prediction tool. 497–505.
- Harugeri, A., Joseph, J., Parthasarathi, G., Ramesh, M., dan Guido, S., 2010. Potentially inappropriate medication use in elderly patients: a study of prevalence and predictors in two teaching hospitals. *Journal of Postgraduate Medicine*, 56: 186–191.
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing*, 25(8), 652–661. <https://doi.org/10.1177/1744987120927206>
- Achterhof, A. B., Rozsnyai, Z., Reeve, E., Jungo, K. T., Floriani, C., Poortvliet, R. K. E., Rodondi, N., Gussekloo, J., & Streit, S. (2020). Potentially inappropriate medication and attitudes of older adults towards deprescribing. *PLoS ONE*, 15(10 October), 1–14. <https://doi.org/10.1371/journal.pone.0240463>
- Faustino, C. G., Martins, M. de A., & Jacob Filho, W. (2011). Potentially inappropriate medication prescribed to elderly outpatients at a general medicine unit. *Einstein (São Paulo)*, 9(1), 18–23. <https://doi.org/10.1590/s1679-45082011ao1844>
- Trenaman, S. C., Rideout, M., & Andrew, M. K. (2019). Sex and gender differences in polypharmacy in persons with dementia: A scoping review. *SAGE Open Medicine*, 7, 205031211984571. <https://doi.org/10.1177/2050312119845715>
- Tao, L., Qu, X., Gao, H., Zhai, J., Zhang, Y., & Song, Y. (2021). Polypharmacy and potentially inappropriate medications among elderly patients in the geriatric department at a single-center in China. *Medicine*, 100(42), e27494. <https://doi.org/10.1097/md.00000000000027494>

Abdulah, R. et al. (2018) 'Polypharmacy leads to increased prevalence of potentially inappropriate medication in the Indonesian geriatric population visiting primary care facilities', *Therapeutics and Clinical Risk Management*, 14, pp. 1591–1597. doi:10.2147/TCRM.S170475.

Alshehri, S. et al. (2020) 'Adherence to Beers Criteria in Geriatrics', *Geriatrics*, (5(4):97), pp. 1–8. doi: <https://doi.org/10.3390/geriatrics5040097>.

Ay, P., Akici, A. and Harmanci, H. (2005) 'Drug utilization and potentially inappropriate drug use in elderly residents of a community in Istanbul, Turkey', *International Journal of Clinical Pharmacology and Therapeutics*, 43(4), pp. 195–202. doi:10.5414/cpp43000.

Polypharmacy and Risks of Potentially Inappropriate Medication Use in the Older Population in a Developing Country : A Systematic Review and Meta-Analysis'. doi: 10.1159/000516075.

He, D. et al. (2021) 'Potentially inappropriate medications in Chinese older adults: a comparison of two updated Beers criteria', *International Journal of Clinical Pharmacy*, 43(1), pp. 229–235. doi: 10.1007/s11096-020-01139-5.

Li, L. and Balamurugan, C. (2012) 'Evaluation of potentially inappropriate medications among older residents of Malaysian nursing homes', pp. 596–603. doi:10.1007/s11096-012-9651-1.

Pérez, T. et al. (2018) 'Prevalence of potentially inappropriate prescribing in older people in primary care and its association with hospital admission : longitudinal study', *BMJ*, (k4524), p. 363. doi: 10.1136/bmj.k4524.

Coelho, R. F. et al. (2018) 'Predictive factors for prolonged hospital stay after retropubic radical prostatectomy in a high-volume teaching center', *Int Braz J Urol.*, 44(6), pp.1089–1105. doi: 10.1590/S1677-5538.IBJU.2017.0339.

Bhagavathula, A. S., Gebreyohannes, E. A. and Fialova, D. (2021) 'Prevalence of Olanzapine, Landis F, Liperoti R, Fialova D, Gambassi G, B. R. (2005) 'Impact of inappropriate drug use among hospitalized older adults', *European Journal of Clinical Pharmacology* 61(5-6), pp. 453–459. doi: 10.1007/s00228-005-0928-3.

Stephanie M. Ozalas, Victoria Huang, L. B. and Reilly, T. (2017) 'Comparison of Two Versions of the Beers Criteria and Adverse Outcomes in Older Hospitalized Patients', *The Consultant Pharmacist®*, 32(12), pp. 752–763. doi: 10.4140/TCP.n.2017.752.

Vetrano, D. L. et al. (2014) 'European Journal of Internal Medicine Predictors of length of hospital stay among older adults admitted to acute care wards : a multicentre observational study', *European Journal of Internal Medicine*, 25(1), pp. 56–62. doi:10.1016/j.ejim.2013.08.709.

- Ofori-assenso, R., Liew, D. and Jones, D. (2020) ‘The Frequency of , and Factors Associated with Prolonged Hospitalization: A Multicentre Study in’, *Journal of Clinical Medicine*, 9(3055), pp. 1–14. doi:10.3390/jcm9093055.
- Hagstrom, Kelly; Nailor, Michael; Lindberg, Michael; Hobbs, Laura; Sobieraj, Diana M. (2015). Association Between Potentially Inappropriate Medication Use in Elderly Adults and Hospital-Related Outcomes. *Journal of the American Geriatrics Society*, 63(1), 185–186. doi:10.1111/jgs.13229
- Ifeoma A. Inneh, MPH, Richard Iorio, MD , James D. Slover, MD, MS, Joseph A. Bosco III, M. (2015) ‘Role of Sociodemographic , Co-morbid and Intraoperative Factors in Length of Stay Following Primary Total Hip Arthroplasty’, *Journal of Arthroplasty*. doi: 10.1016/j.arth.2015.06.054.
- Incalzi RA, Gemma A, Capparella O, Terranova L, Porcedda P, Tresalti E, et al. Predicting mortality and length of stay of geriatric patients in an acute care general hospital. *J Gerontol* 1992;47:M35–9.
- Lowry E, Woodman RJ, Soiza RL, Hilmer SN, Mangoni AA. Drug burden index, physical function, and adverse outcomes in older hospitalized patients. *J Clin Pharmacol* 2012;52:1584–91.
- Marfil-Garza, B. A. et al. (2018) ‘Correction: Risk factors associated with prolonged hospital length-of-stay: 18-year retrospective study of hospitalizations in a tertiary healthcare center in Mexico (PLoS ONE (2018) 13: 11(e0207203) Doi :10.1371/journal.pone.0207203)’, *PLoS ONE*, 13(12), pp. 4–17. doi:10.1371/journal.pone.0209944.
- Vetrano, D. L. et al. (2014) ‘European Journal of Internal Medicine Predictors of length of hospital stay among older adults admitted to acute care wards : a multicentre observational study’, *European Journal of Internal Medicine*, 25(1), pp. 56–62. doi:10.1016/j.ejim.2013.08.709.
- Pasini, A. et al. (2017) ‘The Italian Society for Pediatric Nephrology (SINePe) consensus document on the management of nephrotic syndrome in children: Part i - Diagnosis and treatment of the first episode and the first relapse’, *Italian Journal of Pediatrics*, 43(1), pp. 1–15. doi: 10.1186/s13052-017-0356-x.
- Maguire PA, Taylor IC, Stout RW. Elderly patients in acute medical wards: factors predicting length of stay in hospital. *Br Med J (Clin Res Ed)* 1986;292:1251–3.
- Atoui, R. et al. (2008) ‘Risk factors for prolonged stay in the intensive care unit and on the ward after cardiac surgery’, *Journal of Cardiac Surgery*, 23(2), pp. 99–106. doi:10.1111/j.1540-8191.2007.00564.x.

- Aubert, C. E. et al. (2020) 'Association of patterns of multimorbidity with length of stay: A multinational observational study', *Medicine*, 99(34), p. e21650. doi:10.1097/MD.00000000000021650.
- Hall W.H., Ramachandran R., Narayan S., Jani A.B., Vijayakumar S., 2004, An electronic application for rapidly calculating Charlson Comorbidity Score. *BMC Cancer*, 4(1). doi:10.1186/1471-2407-4-94
- Roffman C.E., Buchanan J., Allison G.T., 2016, Charlson Comorbidities Index, *Journal of Physiotherapy*, 62(3), 171. doi:10.1016/j.jphys.2016.05.008
- Chang C.M., Yin W.Y., Wei C.K., Wu C.C., Su Y.C., Yu C.H., Lee C.C., 2016, Correction: Adjusted Age-Adjusted Charlson Comorbidity Index Score as a Risk Measure of Perioperative Mortality before Cancer Surgery, *Plos One*, 11, (6).
- Chahine, B. (2020) 'Potentially inappropriate medications prescribing to elderly patients with advanced chronic kidney by using 2019 American Geriatrics Society Beers Criteria', *Wiley Health Science Report*, (October). doi: 10.1002/hsr2.214
- Zhang, H., Wong, E. L., Wong, S. Y., Chau, P. Y., Yip, B. H., Chung, R. Y., Lee, E. K., Lai, F. T., & Yeoh, E. K. (2021). Prevalence and determinants of potentially inappropriate medication use in Hong Kong older patients: a cross-sectional study. *BMJ open*, 11(7), e051527. <https://doi.org/10.1136/bmjopen-2021-051527>
- DeWilde, S., Carey, I. M., Richards, N., Whincup, P. H., & Cook, D. G. (2008). Trends in secondary prevention of ischaemic heart disease in the UK 1994 2005: use of individual and combination treatment. *Heart (British Cardiac Society)*, 94(1), 83–88. <https://doi.org/10.1136/hrt.2006.111757>
- Lee A, Kuo B. Metoclopramide in the treatment of diabetic gastroparesis. *Expert Rev Endocrinol Metab* 2010;5:653-62.
- Shaffer D, Bujerfeld M, Pamer C, Mackey AC. Tardive dyskinesia risks and metoclopramide use before and after U.S. market withdrawal of cisapride. *J Am Pharm Assoc* 2004;44:661-5.
- Magalhães, M. S., Santos, F., & Reis, A. (2019). Factors associated with the use of potentially inappropriate medication by elderly patients prescribed at hospital discharge. *Einstein (Sao Paulo, Brazil)*, 18, eAO4877. https://doi.org/10.31744/einstein_journal/2020AO4877
- Kerin, N. Z., Blevins, R. D., Goldman, L., Fattel, K., & Rubenfire, M. (1988). The incidence, magnitude, and time course of the amiodarone-warfarin interaction. *Archives of internal medicine*, 148(8), 1779–1781.

- Franconi, F., & Campesi, I. (2014). Pharmacogenomics, pharmacokinetics and pharmacodynamics: interaction with biological differences between men and women. *British journal of pharmacology*, 171(3), 580–594. <https://doi.org/10.1111/bph.12362>
- Faustino CG, Martins MA, Jacob Filho W. Potentially inappropriate medication prescribed to elderly outpatients at a general medicine unit. *Einstein (Sao Paulo)* 2011; 9: 18–23.
- Al-Dahshan, A., & Kehyayan, V. (2021). Prevalence and Predictors of Potentially Inappropriate Medication Prescription Among Older Adults: A Cross-Sectional Study in the State of Qatar. *Drugs - real world outcomes*, 8(1), 95–103. <https://doi.org/10.1007/s40801-020-00220-9>
- Abe, J., Umetsu, R., Uranishi, H., Suzuki, H., Nishibata, Y., Kato, Y., Ueda, N., Sasaoka, S., Hatahira, H., Motooka, Y., Masuta, M., & Nakamura, M. (2017). Analysis of polypharmacy effects in older patients using Japanese Adverse Drug Event Report database. *PloS one*, 12(12), e0190102. <https://doi.org/10.1371/journal.pone.0190102>
- Zeenny, R., Wakim, S., & Kuyumjian, Y. M. (2017). Potentially inappropriate medications use in community-based aged patients: a cross-sectional study using 2012 Beers criteria. *Clinical interventions in aging*, 12, 65–73. <https://doi.org/10.2147/CIA.S87564>
- Vieira de Lima, T. J., Garbin, C. A., Garbin, A. J., Sumida, D. H., & Saliba, O. (2013). Potentially inappropriate medications used by the elderly: prevalence and risk factors in Brazilian care homes. *BMC geriatrics*, 13, 52. <https://doi.org/10.1186/1471-2318-13-52>
- Rochon, P. A., Petrovic, M., Cherubini, A., Onder, G., O'Mahony, D., Sternberg, S. A., ... & Gurwitz, J. H. (2021). Polypharmacy, inappropriate prescribing, and deprescribing in older people: through a sex and gender lens. *The Lancet Healthy Longevity*, 2(5), e290–e300. [https://doi.org/10.1016/S2666-7568\(21\)00054-4](https://doi.org/10.1016/S2666-7568(21)00054-4)
- Rufaidah, AL., 2015. Study of Drug Related Problems (DRPs) in Inpatient Treatment of Heart Failure Patients at Dr. RSUP. Soeradji Tirtonegoro Kalten, Thesis, MSc, Faculty of Pharmacy, Gadjah Mada University, Yogyakarta.
- He, D., Zhu, H., Zhou, H., Dong, N., & Zhang, H. (2021). Potentially inappropriate medications in Chinese older adults: a comparison of two updated Beers criteria. *International journal of clinical pharmacy*, 43(1), 229–235. <https://doi.org/10.1007/s11096-020-01139-5>
- Oliveira, M. V. P., & Buarque, D. C. (2018). Polypharmacy and the use of Potentially Inappropriate Medications among aged in patients. *Geriatrics, Gerontology and Aging*, 12(1), 38–44. <https://doi.org/10.5327/z2447-211520181800001>

- Mera, F., Mestre, D., Almeda, J., Ferrer, A., Formiga, F., & Rojas Farreras, S. (2011). Paciente anciano y medicación crónica inapropiada en la comunidad ¿somos conscientes de ello? *Revista Espanola de Geriatria y Gerontologia*, 46(3), 125–130. <https://doi.org/10.1016/j.regg.2010.12.008>
- Patel, M. M., Mark, A. S., & Patel, V. J. (2020). Potentially Inappropriate Medications in Indian Geriatric Patients Visiting Out-patient Departments of Tertiary Care Teaching Hospital. *Journal of Pharmacology and Pharmacotherapeutics*, 11(2), 53–58. https://doi.org/10.4103/jpp.JPP_16_20
- Salwe, K. J., Kalyansundaram, D., & Bahurupi, Y. (2016). A Study on Polypharmacy and Potential Drug-Drug Interactions among Elderly Patients Admitted in Department of Medicine of a Tertiary Care Hospital in Puducherry. *Journal of clinical and diagnostic research : JCDR*, 10(2), FC06–FC10. <https://doi.org/10.7860/JCDR/2016/16284.7273>