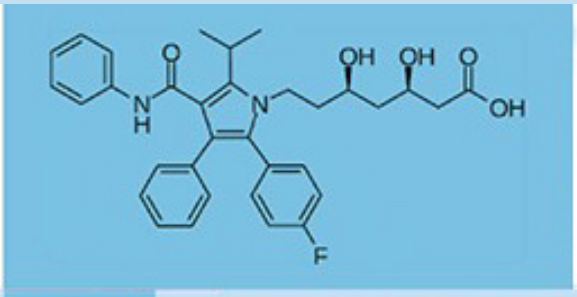
IAS STATIN NEWSLETTER



INTERNATIONAL ATHEROSCLEROSIS SOCIETY

A CURATED WEEKLY UPDATE OF ALL STATIN PUBLICATIONS

Update - January 2022

**Curated by Peter Lansberg,
a Dutch lipidologist and educator, and
reviewed by prof. Philip Barter, Past President of the
International Atherosclerosis Society.**

The IAS statin literature update will keep you up-to-date with all recent statin publications, using a curated approach to select relevant articles.

Statin pubblications January 2022

Add on treatments

1. **Lan NSR, Ali US, Larbalestier R *et al.* An opportunity to improve secondary prevention with icosapent ethyl in patients who have undergone coronary artery bypass graft surgery. Cardiovascular revascularization medicine : including molecular interventions 2021.** http://www.ncbi.nlm.nih.gov/pubmed/?term=34974987
2. **Al Megalli M, Bashir S, Qadah H *et al.* Colchicine-Induced Acute Myopathy: Case Study From Saudi Arabia. Cureus 2021; 13:e20290.** http://www.ncbi.nlm.nih.gov/pubmed/?term=35028201
3. **McNavish DE, German CA, Shapiro MD. Should a Statin be Given to All Hypertensive Patients? Curr Hypertens Rep 2022; 24:21-27.** http://www.ncbi.nlm.nih.gov/pubmed/?term=35072922
4. **Pirillo A, Catapano AL. New insights into the role of bempedoic acid and ezetimibe in the treatment of hypercholesterolemia. Current opinion in endocrinology, diabetes, and obesity 2022.** http://www.ncbi.nlm.nih.gov/pubmed/?term=34980867
5. **Merat S, Jafari E, Radmard AR *et al.* Polypill for prevention of cardiovascular diseases with focus on non-alcoholic steatohepatitis: the PolyIran-Liver trial. Eur Heart J 2022.** http://www.ncbi.nlm.nih.gov/pubmed/?term=35048107

6. Champigny C, Morin-Parent F, Bellehumeur-Lefebvre L *et al.* Combining Lovastatin and Minocycline for the Treatment of Fragile X Syndrome: Results From the LovaMiX Clinical Trial. Frontiers in psychiatry 2021; 12:762967. http://www.ncbi.nlm.nih.gov/pubmed/?term=35058813
7. Grassi G, Del Pinto R, Agabiti Rosei C *et al.* Reduction of High Cholesterol Levels by a Preferably Fixed-Combination Strategy as the First Step in the Treatment of Hypertensive Patients with Hypercholesterolemia and High/Very High Cardiovascular Risk: A Consensus Document by the Italian Society of Hypertension. High blood pressure & cardiovascular prevention : the official journal of the Italian Society of Hypertension 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34978703
8. Singh N, Bhatt DL, Miller M *et al.* Consistency of Benefit of Icosapent Ethyl by Background Statin Type in REDUCE-IT. J Am Coll Cardiol 2022; 79:220-222. http://www.ncbi.nlm.nih.gov/pubmed/?term=35027114
9. Jo SH, Kang SM, Yoo BS *et al.* A Prospective Randomized, Double-Blind, Multi-Center, Phase III Clinical Trial Evaluating the Efficacy and Safety of Olmesartan/Amlodipine plus Rosuvastatin Combination Treatment in Patients with Concomitant Hypertension and Dyslipidemia: A LEISURE Study. Journal of clinical medicine 2022; 11. http://www.ncbi.nlm.nih.gov/pubmed/?term=35054044
10. Milner E, Ainsworth M, Gleaton M, Bookstaver D. Assessment of Anti-Xa activity in patients receiving concomitant apixaban with strong p-glycoprotein inhibitors and statins. Journal of clinical pharmacy and therapeutics 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35032137
11. Sherafat A, Sahebnasagh A, Rahmany R *et al.* The preventive effect of the combination of atorvastatin and nortriptyline in migraine-type headache: a randomized, triple-blind, placebo-controlled trial. Neurol Res 2022:1-7. http://www.ncbi.nlm.nih.gov/pubmed/?term=35037597
12. Borghi C, Levy BI. Synergistic actions between angiotensin-converting enzyme inhibitors and statins in atherosclerosis. Nutrition, metabolism, and cardiovascular diseases : NMCD 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=35082055
13. Ding C, Li Y, Li X *et al.* QiShenYiQi pills, a Chinese patent medicine, increase bioavailability of atorvastatin by inhibiting Mrp2 expression in rats. Pharmaceutical biology 2022; 60:185-194. http://www.ncbi.nlm.nih.gov/pubmed/?term=35001796
14. Saud AH, Ali NAJ, Gali FY, Hadi NR. THE EFFECT OF EVOLOCUMAB ALONE AND IN COMBINATION WITH ATORVASTATIN ON LIPID PROFILE. Wiadomosci lekarskie (Warsaw, Poland : 1960) 2021; 74:3184-3187. http://www.ncbi.nlm.nih.gov/pubmed/?term=35058387
15. Yu Y, Wang L, Zhu X *et al.* Sodium ozagrel and atorvastatin for type 2 diabetes patients with lacunar cerebral infarction. World J Diabetes 2021; 12:2096-2106. http://www.ncbi.nlm.nih.gov/pubmed/?term=35047123
16. Kim H, Kim JK. Evidence on Statins, Omega-3, and Prostate Cancer: A Narrative Review. World J Mens Health 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35021299

Adherence

1. Locuratolo N, Scicchitano P, Antoncecchi E *et al.* (Follow-up of patients after an acute coronary event: the Apulia PONTE-SCA program). Giornale italiano di cardiologia (2006) 2022; 23:63-74. http://www.ncbi.nlm.nih.gov/pubmed/?term=34985464
2. Zhang Y, Flory JH, Bao Y. Chronic Medication Nonadherence and Potentially Preventable Healthcare Utilization and Spending Among Medicare Patients. Journal of general internal medicine 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35018567

3. Yao S, Lix L, Teare G *et al.* The Impact of Age and Sex Concordance Between Patients and Physicians on Medication Adherence: A Population-Based Study. Patient preference and adherence 2022; 16:169-178. http://www.ncbi.nlm.nih.gov/pubmed/?term=35087269
4. Elkomos M, Jahromi R, Kelly MS. Pharmacist-Led Programs to Increase Statin Prescribing: A Narrative Review of the Literature. Pharmacy (Basel, Switzerland) 2022; 10. http://www.ncbi.nlm.nih.gov/pubmed/?term=35076632

Atherosclerosis – Plaque -Imaging

1. Firnhaber JM, Powell CS. Arterial Atherosclerosis: Vascular Surgery Interventions. American family physician 2022; 105:65-72. http://www.ncbi.nlm.nih.gov/pubmed/?term=35029953
2. Wei T, Li J, Fu G *et al.* Simvastatin Improves Myocardial Ischemia Reperfusion Injury through KLF-Regulated Alleviation of Inflammation. Disease markers 2022; 2022:7878602. http://www.ncbi.nlm.nih.gov/pubmed/?term=35059045
3. Li M, Hou J, Gu X *et al.* Incidence and risk factors of in-stent restenosis after percutaneous coronary intervention in patients from southern China. European journal of medical research 2022; 27:12. http://www.ncbi.nlm.nih.gov/pubmed/?term=35065663
4. Torguson R, Mintz GS, Zhang C *et al.* Lipid-rich plaque density and low-density lipoprotein cholesterol in statin-treated versus statin-naïve patients: a post hoc analysis of the LRP study. EuroIntervention : journal of EuroPCR in collaboration with the Working Group on Interventional Cardiology of the European Society of Cardiology 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35037626
5. Giannotti N, McNulty J, Foley S *et al.* Association Between 18-FDG Positron Emission Tomography and MRI Biomarkers of Plaque Vulnerability in Patients With Symptomatic Carotid Stenosis. Frontiers in neurology 2021; 12:731744. http://www.ncbi.nlm.nih.gov/pubmed/?term=35002912
6. Fici F, Faikoglu G, Tarim BA *et al.* Pitavastatin: Coronary Atherosclerotic Plaques Changes and Cardiovascular Prevention. High blood pressure & cardiovascular prevention : the official journal of the Italian Society of Hypertension 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35064911
7. Naghavi M, Kleis S, Tanaka H *et al.* High Frequency of Microvascular Dysfunction in US Outpatient Clinics: A Sign of High Residual Risk? Data from 7,105 Patients. Int J Vasc Med 2022; 2022:4224975. http://www.ncbi.nlm.nih.gov/pubmed/?term=35036009
8. Wu WY, Biery DW, Berman AN *et al.* Impact of coronary artery calcium testing on patient management. Journal of cardiovascular computed tomography 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34998708
9. Sridharan ND, Asaadi S, Thirumala PD, Avgerinos ED. A systematic review of cognitive function after carotid endarterectomy in asymptomatic patients. Journal of vascular surgery 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995717
10. Berge CA, Eskerud I, Almeland EB *et al.* Relationship between hypertension and non-obstructive coronary artery disease in chronic coronary syndrome (the NORIC registry). PLoS One 2022; 17:e0262290. http://www.ncbi.nlm.nih.gov/pubmed/?term=35061769

Atorvastatin/Rosuvastatin

1. Kornelsen V, Unger M, Kumar A. Atorvastatin does not display an antimicrobial activity on its own nor potentiates the activity of other antibiotics against Acinetobacter baumannii ATCC17978 or A. baumannii AB030. Access Microbiol 2021; 3:000288. http://www.ncbi.nlm.nih.gov/pubmed/?term=35018330
2. Chen D, Sui L, Chen C *et al.* Atorvastatin suppresses NLRP3 inflammasome activation in intracerebral hemorrhage via TLR4- and MyD88-dependent pathways. Aging 2022; 14:462-476. http://www.ncbi.nlm.nih.gov/pubmed/?term=35017318
3. Rebelo P, Pacheco JG, Voroshylova IV *et al.* A simple electrochemical detection of atorvastatin based on disposable screen-printed carbon electrodes modified by molecularly imprinted polymer: Experiment and simulation. Anal Chim Acta 2022; 1194:339410. http://www.ncbi.nlm.nih.gov/pubmed/?term=35063166
4. Yang C, Ni HY, Yin JJ *et al.* Atorvastatin ameliorates depressive behaviors via regulation of α7nAChR expression by PI3K/Akt-BDNF pathway in mice. Biochem Biophys Res Commun 2022; 593:57-64. http://www.ncbi.nlm.nih.gov/pubmed/?term=35063770
5. Atorvastatin versus placebo in patients with covid-19 in intensive care: randomized controlled trial. Bmj 2022; 376:e068407. http://www.ncbi.nlm.nih.gov/pubmed/?term=34996756
6. Lan NSR, Ali US, Larbalestier R *et al.* An opportunity to improve secondary prevention with icosapent ethyl in patients who have undergone coronary artery bypass graft surgery. Cardiovascular revascularization medicine : including molecular interventions 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34974987
7. Cao Y, Chen Z, Jia J *et al.* Rosuvastatin Alleviates Coronary Microembolization-Induced Cardiac Injury by Suppressing Nox2-Induced ROS Overproduction and Myocardial Apoptosis. Cardiovasc Toxicol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34997458
8. Abolghasemi R, Ebrahimi-Barough S, Mohamadnia A, Ai J. Synergistic inhibitory effect of human umbilical cord matrix mesenchymal stem cells-conditioned medium and atorvastatin on MCF7 cancer cells viability and migration. Cell Tissue Bank 2022:1-23. http://www.ncbi.nlm.nih.gov/pubmed/?term=34988840
9. Voora D, Baye J, McDermaid A *et al.* SLCO1B1*5 Allele is Associated with Atorvastatin Discontinuation and Adverse Muscle Symptoms in the Context of Routine Care. Clinical pharmacology and therapeutics 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35034348
10. Osborn H, Grossman D, Kochhar S *et al.* A Rare Case of Delayed Onset Multi-Drug Interaction Resulting in Rhabdomyolysis in a 66-Year-Old Male. Cureus 2021; 13:e20035. http://www.ncbi.nlm.nih.gov/pubmed/?term=34987920
11. McNavish DE, German CA, Shapiro MD. Should a Statin be Given to All Hypertensive Patients? Curr Hypertens Rep 2022; 24:21-27. http://www.ncbi.nlm.nih.gov/pubmed/?term=35072922
12. Al-Kuraishy HM, Al-Gareeb AI, Naji MT. Statin therapy associated with decreased neuronal injury measured by serum S100β levels in patients with acute ischemic stroke. Int J Crit Illn Inj Sci 2021; 11:246-252. http://www.ncbi.nlm.nih.gov/pubmed/?term=35070915
13. Jo SH, Kang SM, Yoo BS *et al.* A Prospective Randomized, Double-Blind, Multi-Center, Phase III Clinical Trial Evaluating the Efficacy and Safety of Olmesartan/Amlodipine plus Rosuvastatin Combination Treatment in Patients with Concomitant Hypertension and Dyslipidemia: A LEISURE Study. Journal of clinical medicine 2022; 11. http://www.ncbi.nlm.nih.gov/pubmed/?term=35054044
14. Milner E, Ainsworth M, Gleaton M, Bookstaver D. Assessment of Anti-Xa activity in patients receiving concomitant apixaban with strong p-glycoprotein inhibitors and

statins. Journal of clinical pharmacy and therapeutics 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35032137
15. Williams PT. Quantile-Specific Heritability of Inflammatory and Oxidative Stress Biomarkers Linked to Cardiovascular Disease. J Inflamm Res 2022; 15:85-103. http://www.ncbi.nlm.nih.gov/pubmed/?term=35023945
16. Roušarová J, Šíma M, Kozlík P *et al.* Changes in Rosuvastatin Pharmacokinetics During Postnatal Ontogenesis in Rats. Journal of pharmacy & pharmaceutical sciences : a publication of the Canadian Society for Pharmaceutical Sciences, Societe canadienne des sciences pharmaceutiques 2021; 25:1-8. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995472
17. Chen Z, Chow TCH, Wang S *et al.* Reaction of the Liver upon Long-Term Treatment of Fluoxetine and Atorvastatin Compared with Alcohol in a Mouse Model. J Toxicol 2021; 2021:9974969. http://www.ncbi.nlm.nih.gov/pubmed/?term=35003254
18. Hunt NB, Emmens JE, Irawati S *et al.* Sex disparities in the effect of statins on lipid parameters: The PharmLines Initiative. Medicine (Baltimore) 2022; 101:e28394. http://www.ncbi.nlm.nih.gov/pubmed/?term=35029178
19. Borghi C, Levy BI. Synergistic actions between angiotensin-converting enzyme inhibitors and statins in atherosclerosis. Nutrition, metabolism, and cardiovascular diseases : NMCD 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=35082055
20. Ding C, Li Y, Li X *et al.* QiShenYiQi pills, a Chinese patent medicine, increase bioavailability of atorvastatin by inhibiting Mrp2 expression in rats. Pharmaceutical biology 2022; 60:185-194. http://www.ncbi.nlm.nih.gov/pubmed/?term=35001796
21. Tulbah AS, Gamal A. Design and Characterization of Atorvastatin Dry Powder Formulation as a potential Lung Cancer Treatment. Saudi pharmaceutical journal : SPJ : the official publication of the Saudi Pharmaceutical Society 2021; 29:1449-1457. http://www.ncbi.nlm.nih.gov/pubmed/?term=35002383
22. Vemuri VD, Lankalapalli S. Cocrystal Construction Between Rosuvastatin Calcium and L-asparagine with Enhanced Solubility and Dissolution Rate. Turk J Pharm Sci 2021; 18:790-798. http://www.ncbi.nlm.nih.gov/pubmed/?term=34979738
23. Saud AH, Ali NAJ, Gali FY, Hadi NR. THE EFFECT OF EVOLOCUMAB ALONE AND IN COMBINATION WITH ATORVASTATIN ON LIPID PROFILE. Wiadomosci lekarskie (Warsaw, Poland : 1960) 2021; 74:3184-3187. http://www.ncbi.nlm.nih.gov/pubmed/?term=35058387
24. Mao LL, Zhang ZL, Xu B *et al.* (A case of acute liver injury caused by atorvastatin in a patient with SLCO1B1*1b haplotype). Zhonghua Gan Zang Bing Za Zhi 2021; 29:1205-1206. http://www.ncbi.nlm.nih.gov/pubmed/?term=35045640

Basic science

1. Kornelsen V, Unger M, Kumar A. Atorvastatin does not display an antimicrobial activity on its own nor potentiates the activity of other antibiotics against Acinetobacter baumannii ATCC17978 or A. baumannii AB030. Access Microbiol 2021; 3:000288. http://www.ncbi.nlm.nih.gov/pubmed/?term=35018330
2. Zabihi M, Askarian F, Hekmatimoghaddam S *et al.* Ascorbic Acid Significantly Decreases Creatine Kinase Plasma Levels in an Animal Model of Statin/Fibrate-Induced Myopathy. Adv Pharmacol Pharm Sci 2021; 2021:5539595. http://www.ncbi.nlm.nih.gov/pubmed/?term=35005624
3. Chen D, Sui L, Chen C *et al.* Atorvastatin suppresses NLRP3 inflammasome activation in intracerebral hemorrhage via TLR4- and MyD88-dependent pathways. Aging 2022; 14:462-476. http://www.ncbi.nlm.nih.gov/pubmed/?term=35017318

4. Rebelo P, Pacheco JG, Voroshylova IV *et al.* A simple electrochemical detection of atorvastatin based on disposable screen-printed carbon electrodes modified by molecularly imprinted polymer: Experiment and simulation. Anal Chim Acta 2022; 1194:339410. http://www.ncbi.nlm.nih.gov/pubmed/?term=35063166
5. Yang C, Ni HY, Yin JJ *et al.* Atorvastatin ameliorates depressive behaviors via regulation of α7nAChR expression by PI3K/Akt-BDNF pathway in mice. Biochem Biophys Res Commun 2022; 593:57-64. http://www.ncbi.nlm.nih.gov/pubmed/?term=35063770
6. Sharma A, Sanjeev K, Selvanathan VMJ *et al.* The evaluation of cytotoxicity and cytokine IL-6 production of root canal sealers with and without the incorporation of simvastatin: an invitro study. BMC oral health 2022; 22:6. http://www.ncbi.nlm.nih.gov/pubmed/?term=35012572
7. Cao Y, Chen Z, Jia J *et al.* Rosuvastatin Alleviates Coronary Microembolization-Induced Cardiac Injury by Suppressing Nox2-Induced ROS Overproduction and Myocardial Apoptosis. Cardiovasc Toxicol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34997458
8. Abolghasemi R, Ebrahimi-Barough S, Mohamadnia A, Ai J. Synergistic inhibitory effect of human umbilical cord matrix mesenchymal stem cells-conditioned medium and atorvastatin on MCF7 cancer cells viability and migration. Cell Tissue Bank 2022:1-23. http://www.ncbi.nlm.nih.gov/pubmed/?term=34988840
9. Diniz JA, Barbirato DDS, do Nascimento EHL *et al.* Tomographic evaluation of the effect of simvastatin topical use on alveolar bone microarchitecture, pain and swelling after mandibular third molar extraction: a randomized controlled trial. Clinical oral investigations 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35064813
10. Shi X, Chen Y, Liu Q *et al.* LDLR dysfunction induces LDL accumulation and promotes pulmonary fibrosis. Clinical and translational medicine 2022; 12:e711. http://www.ncbi.nlm.nih.gov/pubmed/?term=35083881
11. Jain P, Farooq U, Nainwal LM *et al.* In-silico validation of the proposed treatment strategy of periodontitis. Comb Chem High Throughput Screen 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35081885
12. Xu M, Luo LL, Du MY *et al.* Simvastatin Improves Outcomes of Endotoxin-induced Coagulopathy by Regulating Intestinal Microenvironment. Current medical science 2022; 42:26-38. http://www.ncbi.nlm.nih.gov/pubmed/?term=35041135
13. Gergen AK, Madsen HJ, Li A *et al.* Simvastatin Inhibits Histologic Changes Associated with Gastroduodenal Reflux in a Murine Model. Digestive diseases and sciences 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35001242
14. Wei T, Li J, Fu G *et al.* Simvastatin Improves Myocardial Ischemia Reperfusion Injury through KLF-Regulated Alleviation of Inflammation. Disease markers 2022; 2022:7878602. http://www.ncbi.nlm.nih.gov/pubmed/?term=35059045
15. Li M, Liu X. Pitavastatin maintains MAPK7 expression and alleviates angiotensin II-induced vascular endothelial cell inflammation and injury. Experimental and therapeutic medicine 2022; 23:132. http://www.ncbi.nlm.nih.gov/pubmed/?term=35069813
16. Gupta B, Sharma G, Sharma P *et al.* Self-Gelling Solid Lipid Nanoparticle Hydrogel Containing Simvastatin as Suitable Wound Dressing: An Investigative Study. Gels 2022; 8. http://www.ncbi.nlm.nih.gov/pubmed/?term=35049593
17. Andrade-Pavón D, Gómez-García O, Villa-Tanaca L. Molecular Recognition of Citroflavonoids Naringin and Naringenin at the Active Site of the HMG-CoA Reductase and DNA Topoisomerase Type II Enzymes of Candida spp. and Ustilago maydis. Indian J Microbiol 2022; 62:79-87. http://www.ncbi.nlm.nih.gov/pubmed/?term=35068607

18. Wijaya A, Wang Y, Tang D *et al.* A study of lovastatin and L-arginine co-loaded PLGA nanomedicine for enhancing nitric oxide production and eNOS expression. Journal of materials chemistry. B 2022; 10:607-624. http://www.ncbi.nlm.nih.gov/pubmed/?term=34994373
19. Yu Z, Guo J, Liu Y *et al.* Nano delivery of simvastatin targets liver sinusoidal endothelial cells to remodel tumor microenvironment for hepatocellular carcinoma. J Nanobiotechnology 2022; 20:9. http://www.ncbi.nlm.nih.gov/pubmed/?term=34983554
20. Roušarová J, Šíma M, Kozlík P *et al.* Changes in Rosuvastatin Pharmacokinetics During Postnatal Ontogenesis in Rats. Journal of pharmacy & pharmaceutical sciences : a publication of the Canadian Society for Pharmaceutical Sciences, Societe canadienne des sciences pharmaceutiques 2021; 25:1-8. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995472
21. Wei J, Huan Y, Heng Z *et al.* Dynamic urine proteome changes in a rat model of simvastatin-induced skeletal muscle injury. J Proteomics 2022; 254:104477. http://www.ncbi.nlm.nih.gov/pubmed/?term=34990819
22. Chen Z, Chow TCH, Wang S *et al.* Reaction of the Liver upon Long-Term Treatment of Fluoxetine and Atorvastatin Compared with Alcohol in a Mouse Model. J Toxicol 2021; 2021:9974969. http://www.ncbi.nlm.nih.gov/pubmed/?term=35003254
23. Wang L, Zhu L, Zheng Z *et al.* Mevalonate pathway orchestrates insulin signaling via RAB14 geranylgeranylation-mediated phosphorylation of AKT to regulate hepatic glucose metabolism. Metabolism 2022; 128:155120. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995578
24. Alsehli AM, Liao S, Al-Sabri MH *et al.* The Statin Target HMG-Coenzyme a Reductase (Hmgcr) Regulates Sleep Homeostasis in Drosophila. Pharmaceuticals (Basel, Switzerland) 2022; 15. http://www.ncbi.nlm.nih.gov/pubmed/?term=35056136
25. Tulbah AS, Gamal A. Design and Characterization of Atorvastatin Dry Powder Formulation as a potential Lung Cancer Treatment. Saudi pharmaceutical journal : SPJ : the official publication of the Saudi Pharmaceutical Society 2021; 29:1449-1457. http://www.ncbi.nlm.nih.gov/pubmed/?term=35002383
26. Vemuri VD, Lankalapalli S. Cocrystal Construction Between Rosuvastatin Calcium and L-asparagine with Enhanced Solubility and Dissolution Rate. Turk J Pharm Sci 2021; 18:790-798. http://www.ncbi.nlm.nih.gov/pubmed/?term=34979738
27. Saud AH, Ali NAJ, Gali FY, Hadi NR. THE EFFECT OF EVOLOCUMAB ALONE AND IN COMBINATION WITH ATORVASTATIN ON LIPID PROFILE. Wiadomosci lekarskie (Warsaw, Poland : 1960) 2021; 74:3184-3187. http://www.ncbi.nlm.nih.gov/pubmed/?term=35058387

Cancer

1. Khajeh E, Moghadam AD, Eslami P *et al.* Statin use is associated with the reduction in hepatocellular carcinoma recurrence after liver surgery. BMC Cancer 2022; 22:91. http://www.ncbi.nlm.nih.gov/pubmed/?term=35062904
2. Inasu M, Feldt M, Jernström H *et al.* Statin use and patterns of breast cancer recurrence in the Malmö Diet and Cancer Study. Breast 2022; 61:123-128. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995921
3. Acheampong T, Lee Argov EJ, Terry MB *et al.* Current regular aspirin use and mammographic breast density: a cross-sectional analysis considering concurrent statin and metformin use. Cancer Causes Control 2022; 33:363-371. http://www.ncbi.nlm.nih.gov/pubmed/?term=35022893
4. Larsen SB, Dehlendorff C, Skriver C *et al.* Prescription rates for commonly used drugs before and after a prostate cancer diagnosis. Cancer Causes Control 2022;

33:417-428. http://www.ncbi.nlm.nih.gov/pubmed/?term=35006514
5. Aydh A, Motlagh RS, Alshyarba M *et al.* Association of statins use and mortality outcomes in prostate cancer patients who received androgen deprivation therapy: a systematic review and meta-analysis. Cent European J Urol 2021; 74:484-490. http://www.ncbi.nlm.nih.gov/pubmed/?term=35083066
6. Goh MJ, Sinn DH. Statin and aspirin for chemoprevention of hepatocellular carcinoma: Time to use or wait further? Clinical and molecular hepatology 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35021597
7. Yu Z, Guo J, Liu Y *et al.* Nano delivery of simvastatin targets liver sinusoidal endothelial cells to remodel tumor microenvironment for hepatocellular carcinoma. J Nanobiotechnology 2022; 20:9. http://www.ncbi.nlm.nih.gov/pubmed/?term=34983554
8. Tulbah AS, Gamal A. Design and Characterization of Atorvastatin Dry Powder Formulation as a potential Lung Cancer Treatment. Saudi pharmaceutical journal : SPJ : the official publication of the Saudi Pharmaceutical Society 2021; 29:1449-1457. http://www.ncbi.nlm.nih.gov/pubmed/?term=35002383
9. Kim H, Kim JK. Evidence on Statins, Omega-3, and Prostate Cancer: A Narrative Review. World J Mens Health 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35021299

Cost-effectiveness

1. Michaeli DT, Michaeli JC, Boch T, Michaeli T. Cost-Effectiveness of Lipid-Lowering Therapies for Cardiovascular Prevention in Germany. Cardiovasc Drugs Ther 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35015186

CVD

1. Lu B, Posner D, Vassy JL *et al.* Prediction of Cardiovascular and All-Cause Mortality After Myocardial Infarction in US Veterans. Am J Cardiol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35063273
2. Lan NSR, Ali US, Larbalestier R *et al.* An opportunity to improve secondary prevention with icosapent ethyl in patients who have undergone coronary artery bypass graft surgery. Cardiovascular revascularization medicine : including molecular interventions 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34974987
3. Wei T, Li J, Fu G *et al.* Simvastatin Improves Myocardial Ischemia Reperfusion Injury through KLF-Regulated Alleviation of Inflammation. Disease markers 2022; 2022:7878602. http://www.ncbi.nlm.nih.gov/pubmed/?term=35059045
4. George NE, Shukkoor AA, Joseph N *et al.* Implementation of clinical audit to improve adherence to guideline-recommended therapy in acute coronary syndrome. The Egyptian heart journal : (EHJ) : official bulletin of the Egyptian Society of Cardiology 2022; 74:4. http://www.ncbi.nlm.nih.gov/pubmed/?term=35020077
5. Li M, Hou J, Gu X *et al.* Incidence and risk factors of in-stent restenosis after percutaneous coronary intervention in patients from southern China. European journal of medical research 2022; 27:12. http://www.ncbi.nlm.nih.gov/pubmed/?term=35065663
6. Trompet S, Postmus I, Warren HR *et al.* The Pharmacogenetics of Statin Therapy on Clinical Events: No Evidence that Genetic Variation Affects Statin Response on Myocardial Infarction. Frontiers in pharmacology 2021; 12:679857. http://www.ncbi.nlm.nih.gov/pubmed/?term=35069183

7. Paneroni M, Scalvini S, Corrà U *et al.* The Impact of Cardiac Rehabilitation on Activities of Daily Life in Elderly Patients With Heart Failure. Front Physiol 2021; 12:785501. http://www.ncbi.nlm.nih.gov/pubmed/?term=35069247
8. Locuratolo N, Scicchitano P, Antoncecchi E *et al.* (Follow-up of patients after an acute coronary event: the Apulia PONTE-SCA program). Giornale italiano di cardiologia (2006) 2022; 23:63-74. http://www.ncbi.nlm.nih.gov/pubmed/?term=34985464
9. Arora S, Qamar A, Gupta P *et al.* Guideline based eligibility for primary prevention statin therapy - Insights from the North India ST-elevation myocardial infarction registry (NORIN-STEMI). J Clin Lipidol 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34996741
10. Funamizu T, Iwata H, Chikata Y *et al.* A Prognostic Merit of Statins in Patients with Chronic Hemodialysis after Percutaneous Coronary Intervention-A 10-Year Follow-Up Study. Journal of clinical medicine 2022; 11. http://www.ncbi.nlm.nih.gov/pubmed/?term=35054080
11. Xurui Huang N, Sanderson JE, Fang F *et al.* Passive Prescription of Secondary Prevention Medical Therapy during Index Hospitalization for Acute Myocardial Infarction Is Prevalent and Associated with Adverse Clinical Outcomes. J Healthc Eng 2021; 2021:9543912. http://www.ncbi.nlm.nih.gov/pubmed/?term=34976331
12. Williams PT. Quantile-Specific Heritability of Inflammatory and Oxidative Stress Biomarkers Linked to Cardiovascular Disease. J Inflamm Res 2022; 15:85-103. http://www.ncbi.nlm.nih.gov/pubmed/?term=35023945
13. Verdoia M, Viglione F, Boggio A *et al.* Relationship between vitamin D and cholesterol levels in STEMI patients undergoing primary percutaneous coronary intervention. Nutrition, metabolism, and cardiovascular diseases : NMCD 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=35078678
14. Bogari NM, Babalghith AO, Bouazzaoui A *et al.* Assessment of genetic polymorphism associated with ATP-binding cassette transporter A1 (ABCA1) gene and fluctuations in serum lipid profile levels in patients with coronary artery disease. Saudi pharmaceutical journal : SPJ : the official publication of the Saudi Pharmaceutical Society 2021; 29:1458-1465. http://www.ncbi.nlm.nih.gov/pubmed/?term=35002384

Endothelium/inflammation

1. Chen D, Sui L, Chen C *et al.* Atorvastatin suppresses NLRP3 inflammasome activation in intracerebral hemorrhage via TLR4- and MyD88-dependent pathways. Aging 2022; 14:462-476. http://www.ncbi.nlm.nih.gov/pubmed/?term=35017318
2. Cao Y, Chen Z, Jia J *et al.* Rosuvastatin Alleviates Coronary Microembolization-Induced Cardiac Injury by Suppressing Nox2-Induced ROS Overproduction and Myocardial Apoptosis. Cardiovasc Toxicol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34997458
3. Kao TW, Huang CC. Inflammatory Burden and Immunomodulative Therapeutics of Cardiovascular Diseases. Int J Mol Sci 2022; 23. http://www.ncbi.nlm.nih.gov/pubmed/?term=35054989
4. Williams PT. Quantile-Specific Heritability of Inflammatory and Oxidative Stress Biomarkers Linked to Cardiovascular Disease. J Inflamm Res 2022; 15:85-103. http://www.ncbi.nlm.nih.gov/pubmed/?term=35023945
5. Li W, Sultana N, Yuan L *et al.* CD74 in Apoptotic Macrophages Is Associated with Inflammation, Plaque Progression and Clinical Manifestations in Human Atherosclerotic Lesions. Metabolites 2022; 12. http://www.ncbi.nlm.nih.gov/pubmed/?term=35050177

Ethnicity

1. Galarza-Delgado DA, Colunga-Pedraza IJ, Azpiri-Lopez JR *et al.* Statin indication according to the 2019 World Health Organization cardiovascular disease risk charts and carotid ultrasound in Mexican mestizo rheumatoid arthritis patients. Adv Rheumatol 2022; 62:4. http://www.ncbi.nlm.nih.gov/pubmed/?term=35078534
2. Ho J, Kim B, Kim KS *et al.* Statin Supply and Polydrug Use in Older Adults: A Focus on Drug Combinations that Reduce Bone Density. Ann Geriatr Med Res 2021; 25:269-277. http://www.ncbi.nlm.nih.gov/pubmed/?term=34986544
3. Kuno T, So M, Iwagami M *et al.* The association of statins use with survival of patients with COVID-19. J Cardiol 2021; 79:494-500. http://www.ncbi.nlm.nih.gov/pubmed/?term=34974938
4. Arora S, Qamar A, Gupta P *et al.* Guideline based eligibility for primary prevention statin therapy - Insights from the North India ST-elevation myocardial infarction registry (NORIN-STEMI). J Clin Lipidol 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34996741
5. Chan WK, Tan SS, Chan SP *et al.* Malaysian Society of Gastroenterology and Hepatology consensus statement on metabolic dysfunction-associated fatty liver disease. Journal of gastroenterology and hepatology 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35080048
6. Masilela C, Adeniyi OV, Benjeddou M. Prevalence, patterns and determinants of dyslipidaemia among South African adults with comorbidities. Scientific reports 2022; 12:337. http://www.ncbi.nlm.nih.gov/pubmed/?term=35013433

FH

1. Berberich AJ. The Power to Predict: Does LDLR Mutation Status Determine Statin Responsiveness? Can J Cardiol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35032620
2. Iannuzzo G, Buonaiuto A, Calcaterra I *et al.* Association between causative mutations and response to PCSK9 inhibitor therapy in subjects with familial hypercholesterolemia: A single center real-world study. Nutrition, metabolism, and cardiovascular diseases : NMCD 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34991937

Generics

1. Son KB, Lee EK. Importance of a usual source of care in choosing low-priced generic drugs: a cross-sectional study. Family practice 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35022685

Genetics

1. Türkmen D, Masoli JAH, Kuo CL *et al.* Statin treatment effectiveness and the SLCO1B1*5 reduced function genotype: Long-term outcomes in women and men. Br J Clin Pharmacol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35083771
2. Berberich AJ. The Power to Predict: Does LDLR Mutation Status Determine Statin Responsiveness? Can J Cardiol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35032620

3. Voora D, Baye J, McDermaid A *et al.* SLCO1B1*5 Allele is Associated with Atorvastatin Discontinuation and Adverse Muscle Symptoms in the Context of Routine Care. Clinical pharmacology and therapeutics 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35034348
4. Alsehli AM, Rukh G, Clemensson LE *et al.* Differential associations of statin treatment and polymorphism in genes coding for HMGCR and PCSK9 to risk for insomnia. Frontiers in bioscience (Landmark edition) 2021; 26:1453-1463. http://www.ncbi.nlm.nih.gov/pubmed/?term=34994160
5. Trompet S, Postmus I, Warren HR *et al.* The Pharmacogenetics of Statin Therapy on Clinical Events: No Evidence that Genetic Variation Affects Statin Response on Myocardial Infarction. Frontiers in pharmacology 2021; 12:679857. http://www.ncbi.nlm.nih.gov/pubmed/?term=35069183
6. Bogari NM, Babalghith AO, Bouazzaoui A *et al.* Assessment of genetic polymorphism associated with ATP-binding cassette transporter A1 (ABCA1) gene and fluctuations in serum lipid profile levels in patients with coronary artery disease. Saudi pharmaceutical journal : SPJ : the official publication of the Saudi Pharmaceutical Society 2021; 29:1458-1465. http://www.ncbi.nlm.nih.gov/pubmed/?term=35002384
7. Mao LL, Zhang ZL, Xu B *et al.* (A case of acute liver injury caused by atorvastatin in a patient with SLCO1B1*1b haplotype). Zhonghua Gan Zang Bing Za Zhi 2021; 29:1205-1206. http://www.ncbi.nlm.nih.gov/pubmed/?term=35045640

Guidelines

1. Galarza-Delgado DA, Colunga-Pedraza IJ, Azpiri-Lopez JR *et al.* Statin indication according to the 2019 World Health Organization cardiovascular disease risk charts and carotid ultrasound in Mexican mestizo rheumatoid arthritis patients. Adv Rheumatol 2022; 62:4. http://www.ncbi.nlm.nih.gov/pubmed/?term=35078534
2. Alsayed N, Almahmeed W, Alnouri F *et al.* Consensus clinical recommendations for the management of plasma lipid disorders in the Middle East: 2021 update. Atherosclerosis 2022; 343:28-50. http://www.ncbi.nlm.nih.gov/pubmed/?term=35091265
3. George NE, Shukkoor AA, Joseph N *et al.* Implementation of clinical audit to improve adherence to guideline-recommended therapy in acute coronary syndrome. The Egyptian heart journal : (EHJ) : official bulletin of the Egyptian Society of Cardiology 2022; 74:4. http://www.ncbi.nlm.nih.gov/pubmed/?term=35020077
4. Grassi G, Del Pinto R, Agabiti Rosei C *et al.* Reduction of High Cholesterol Levels by a Preferably Fixed-Combination Strategy as the First Step in the Treatment of Hypertensive Patients with Hypercholesterolemia and High/Very High Cardiovascular Risk: A Consensus Document by the Italian Society of Hypertension. High blood pressure & cardiovascular prevention : the official journal of the Italian Society of Hypertension 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34978703
5. McCaughey C, Ranganathan D, Kerins M *et al.* Dyslipidaemia management in the cardiac rehabilitation clinic of a tertiary referral centre: analysis of the impact of new ESC guidance on LDL-C target achievement. Irish journal of medical science 2022:1-9. http://www.ncbi.nlm.nih.gov/pubmed/?term=35031936
6. Arora S, Qamar A, Gupta P *et al.* Guideline based eligibility for primary prevention statin therapy - Insights from the North India ST-elevation myocardial infarction registry (NORIN-STEMI). J Clin Lipidol 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34996741
7. Chan WK, Tan SS, Chan SP *et al.* Malaysian Society of Gastroenterology and Hepatology consensus statement on metabolic dysfunction-associated fatty liver

disease. Journal of gastroenterology and hepatology 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35080048
8. Yu J, Wang AA, Zimmerman LP *et al.* A Cohort Analysis of Statin Treatment Patterns Among Small-Sized Primary Care Practices. Journal of general internal medicine 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34997391
9. Elkomos M, Jahromi R, Kelly MS. Pharmacist-Led Programs to Increase Statin Prescribing: A Narrative Review of the Literature. Pharmacy (Basel, Switzerland) 2022; 10. http://www.ncbi.nlm.nih.gov/pubmed/?term=35076632
10. Mayer-Suess L, Peball T, Komarek S *et al.* Disparities between guideline statements on acute and post-acute management of cervical artery dissection. Rev Cardiovasc Med 2022; 23:9. http://www.ncbi.nlm.nih.gov/pubmed/?term=35092201

LDL- related parameters

1. Boccara F, Caramelli B, Calmy A *et al.* Long-term effects of evolocumab in participants with HIV and dyslipidemia: results from the open-label extension period. Aids 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35025817
2. Minhas AMK, Ijaz SH. Disparities in Statin Use During Outpatient Visits of Adults (Age 18 to 64 Years) With Coronary Heart Disease in the Medicaid Population in the United States (from the National Ambulatory Medical Care Survey Database 2006 to 2015). Am J Cardiol 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34974897
3. Türkmen D, Masoli JAH, Kuo CL *et al.* Statin treatment effectiveness and the SLCO1B1*5 reduced function genotype: Long-term outcomes in women and men. Br J Clin Pharmacol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35083771
4. Shi X, Chen Y, Liu Q *et al.* LDLR dysfunction induces LDL accumulation and promotes pulmonary fibrosis. Clinical and translational medicine 2022; 12:e711. http://www.ncbi.nlm.nih.gov/pubmed/?term=35083881
5. George NE, Shukkoor AA, Joseph N *et al.* Implementation of clinical audit to improve adherence to guideline-recommended therapy in acute coronary syndrome. The Egyptian heart journal : (EHJ) : official bulletin of the Egyptian Society of Cardiology 2022; 74:4. http://www.ncbi.nlm.nih.gov/pubmed/?term=35020077
6. McCaughey C, Ranganathan D, Kerins M *et al.* Dyslipidaemia management in the cardiac rehabilitation clinic of a tertiary referral centre: analysis of the impact of new ESC guidance on LDL-C target achievement. Irish journal of medical science 2022:1-9. http://www.ncbi.nlm.nih.gov/pubmed/?term=35031936
7. Jo SH, Kang SM, Yoo BS *et al.* A Prospective Randomized, Double-Blind, Multi-Center, Phase III Clinical Trial Evaluating the Efficacy and Safety of Olmesartan/Amlodipine plus Rosuvastatin Combination Treatment in Patients with Concomitant Hypertension and Dyslipidemia: A LEISURE Study. Journal of clinical medicine 2022; 11. http://www.ncbi.nlm.nih.gov/pubmed/?term=35054044
8. Yu J, Wang AA, Zimmerman LP *et al.* A Cohort Analysis of Statin Treatment Patterns Among Small-Sized Primary Care Practices. Journal of general internal medicine 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34997391
9. Xurui Huang N, Sanderson JE, Fang F *et al.* Passive Prescription of Secondary Prevention Medical Therapy during Index Hospitalization for Acute Myocardial Infarction Is Prevalent and Associated with Adverse Clinical Outcomes. J Healthc Eng 2021; 2021:9543912. http://www.ncbi.nlm.nih.gov/pubmed/?term=34976331
10. Ouchi G, Komiya I, Taira S *et al.* Triglyceride/low-density-lipoprotein cholesterol ratio is the most valuable predictor for increased small, dense LDL in type 2 diabetes patients. Lipids Health Dis 2022; 21:4. http://www.ncbi.nlm.nih.gov/pubmed/?term=34996463

11. Hunt NB, Emmens JE, Irawati S *et al.* Sex disparities in the effect of statins on lipid parameters: The PharmLines Initiative. Medicine (Baltimore) 2022; 101:e28394. http://www.ncbi.nlm.nih.gov/pubmed/?term=35029178
12. Al-Kuraishy HM, Hussien NR, Al-Naimi MS *et al.* Statins Therapy Improves Acute Ischemic Stroke in Patients with Cardio-metabolic Disorders Measured by Lipoprotein-Associated Phospholipase A2 (Lp-PLA2): New Focal Point. Neurology India 2021; 69:1637-1644. http://www.ncbi.nlm.nih.gov/pubmed/?term=34979662
13. Iannuzzo G, Buonaiuto A, Calcaterra I *et al.* Association between causative mutations and response to PCSK9 inhibitor therapy in subjects with familial hypercholesterolemia: A single center real-world study. Nutrition, metabolism, and cardiovascular diseases : NMCD 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34991937
14. Bogari NM, Babalghith AO, Bouazzaoui A *et al.* Assessment of genetic polymorphism associated with ATP-binding cassette transporter A1 (ABCA1) gene and fluctuations in serum lipid profile levels in patients with coronary artery disease. Saudi pharmaceutical journal : SPJ : the official publication of the Saudi Pharmaceutical Society 2021; 29:1458-1465. http://www.ncbi.nlm.nih.gov/pubmed/?term=35002384
15. Masilela C, Adeniyi OV, Benjeddou M. Prevalence, patterns and determinants of dyslipidaemia among South African adults with comorbidities. Scientific reports 2022; 12:337. http://www.ncbi.nlm.nih.gov/pubmed/?term=35013433
16. Saud AH, Ali NAJ, Gali FY, Hadi NR. THE EFFECT OF EVOLOCUMAB ALONE AND IN COMBINATION WITH ATORVASTATIN ON LIPID PROFILE. Wiadomosci lekarskie (Warsaw, Poland : 1960) 2021; 74:3184-3187. http://www.ncbi.nlm.nih.gov/pubmed/?term=35058387

Lifestyle

1. Kopecky SL, Alias S, Klodas E, Jones PJH. Reduction in Serum LDL Cholesterol Using a Nutrient Compendium in Hyperlipidemic Adults Unable or Unwilling to Use Statin Therapy: A Double-Blind Randomized Crossover Clinical Trial. The Journal of nutrition 2022; 152:458-465. http://www.ncbi.nlm.nih.gov/pubmed/?term=35079806
2. Tada H, Takamura M, Kawashiri MA. The Effect of Diet on Cardiovascular Disease, Heart Disease, and Blood Vessels. Nutrients 2022; 14. http://www.ncbi.nlm.nih.gov/pubmed/?term=35057427

Meta-analyses

1. Khajeh E, Moghadam AD, Eslami P *et al.* Statin use is associated with the reduction in hepatocellular carcinoma recurrence after liver surgery. BMC Cancer 2022; 22:91. http://www.ncbi.nlm.nih.gov/pubmed/?term=35062904
2. Ziganshina AP, Gemoets DE, Kaminsky LS, Gosmanov AR. Baseline hemoglobin A1c and risk of statin-induced diabetes: results of Veterans Affairs Database analysis. BMJ open diabetes research & care 2022; 10. http://www.ncbi.nlm.nih.gov/pubmed/?term=34987054
3. Aydh A, Motlagh RS, Alshyarba M *et al.* Association of statins use and mortality outcomes in prostate cancer patients who received androgen deprivation therapy: a systematic review and meta-analysis. Cent European J Urol 2021; 74:484-490. http://www.ncbi.nlm.nih.gov/pubmed/?term=35083066
4. Eshtiaghi A, Popovic MM, Sothivannan A *et al.* Statin Use and The Incidence of Age-Related Macular Degeneration: A Meta-Analysis. Retina 2021.

http://www.ncbi.nlm.nih.gov/pubmed/?term=34983903

Metabolic Syndrome - Diabetes

1. Pirillo A, Catapano AL. New insights into the role of bempedoic acid and ezetimibe in the treatment of hypercholesterolemia. Current opinion in endocrinology, diabetes, and obesity 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34980867
2. Quinton JK, Ong MK, Sarkisian C *et al.* The Impact of Telemedicine on Quality of Care for Patients with Diabetes After March 2020. Journal of general internal medicine 2022:1-6. http://www.ncbi.nlm.nih.gov/pubmed/?term=35091921
3. Ouchi G, Komiya I, Taira S *et al.* Triglyceride/low-density-lipoprotein cholesterol ratio is the most valuable predictor for increased small, dense LDL in type 2 diabetes patients. Lipids Health Dis 2022; 21:4. http://www.ncbi.nlm.nih.gov/pubmed/?term=34996463
4. Wang L, Zhu L, Zheng Z *et al.* Mevalonate pathway orchestrates insulin signaling via RAB14 geranylgeranylation-mediated phosphorylation of AKT to regulate hepatic glucose metabolism. Metabolism 2022; 128:155120. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995578
5. Yu Y, Wang L, Zhu X *et al.* Sodium ozagrel and atorvastatin for type 2 diabetes patients with lacunar cerebral infarction. World J Diabetes 2021; 12:2096-2106. http://www.ncbi.nlm.nih.gov/pubmed/?term=35047123

New Treatments

1. Boccara F, Caramelli B, Calmy A *et al.* Long-term effects of evolocumab in participants with HIV and dyslipidemia: results from the open-label extension period. Aids 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35025817
2. Xu M, Zhu X, Wu J *et al.* PCSK9 inhibitor recaticimab for hypercholesterolemia on stable statin dose: a randomized, double-blind, placebo-controlled phase 1b/2 study. BMC Med 2022; 20:13. http://www.ncbi.nlm.nih.gov/pubmed/?term=35039035
3. Al Megalli M, Bashir S, Qadah H *et al.* Colchicine-Induced Acute Myopathy: Case Study From Saudi Arabia. Cureus 2021; 13:e20290. http://www.ncbi.nlm.nih.gov/pubmed/?term=35028201
4. Pirillo A, Catapano AL. New insights into the role of bempedoic acid and ezetimibe in the treatment of hypercholesterolemia. Current opinion in endocrinology, diabetes, and obesity 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34980867
5. Iannuzzo G, Buonaiuto A, Calcaterra I *et al.* Association between causative mutations and response to PCSK9 inhibitor therapy in subjects with familial hypercholesterolemia: A single center real-world study. Nutrition, metabolism, and cardiovascular diseases : NMCD 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34991937
6. Coy K, Stys A, Stys T, DeVries J. Proprotein Convertase Subtilism/Kexin 9 (PCSK9) Inhibitors: Adding to the Armamentarium of the Primary Care Physician. South Dakota medicine : the journal of the South Dakota State Medical Association 2021; 74:454-456. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995425
7. Saud AH, Ali NAJ, Gali FY, Hadi NR. THE EFFECT OF EVOLOCUMAB ALONE AND IN COMBINATION WITH ATORVASTATIN ON LIPID PROFILE. Wiadomosci lekarskie (Warsaw, Poland : 1960) 2021; 74:3184-3187. http://www.ncbi.nlm.nih.gov/pubmed/?term=35058387

Other

1. Baumann R, Retnam R, Hernandez CM *et al.* Managing Hypertension, Diabetes, and Cardiovascular Disease Risk via Short-Term Medical Trips: A Retrospective Longitudinal Study in Santo Domingo. Annals of global health 2022; 88:6. http://www.ncbi.nlm.nih.gov/pubmed/?term=35087706
2. Atorvastatin versus placebo in patients with covid-19 in intensive care: randomized controlled trial. Bmj 2022; 376:e068407. http://www.ncbi.nlm.nih.gov/pubmed/?term=34996756
3. Kuno T, So M, Iwagami M *et al.* The association of statins use with survival of patients with COVID-19. J Cardiol 2021; 79:494-500. http://www.ncbi.nlm.nih.gov/pubmed/?term=34974938
4. Quinton JK, Ong MK, Sarkisian C *et al.* The Impact of Telemedicine on Quality of Care for Patients with Diabetes After March 2020. Journal of general internal medicine 2022:1-6. http://www.ncbi.nlm.nih.gov/pubmed/?term=35091921
5. Verdoia M, Viglione F, Boggio A *et al.* Relationship between vitamin D and cholesterol levels in STEMI patients undergoing primary percutaneous coronary intervention. Nutrition, metabolism, and cardiovascular diseases : NMCD 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=35078678
6. Monserrat Villatoro J, Mejía-Abril G, Díaz García L *et al.* A Case-Control of Patients with COVID-19 to Explore the Association of Previous Hospitalisation Use of Medication on the Mortality of COVID-19 Disease: A Propensity Score Matching Analysis. Pharmaceuticals (Basel, Switzerland) 2022; 15. http://www.ncbi.nlm.nih.gov/pubmed/?term=35056135

PAD and statins

1. Kanai D, Fujii H, Nakai K *et al.* Statin Use Influence on the Occurrence of Acute Kidney Injury in Patients with Peripheral Arterial Disease. J Atheroscler Thromb 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35013022
2. Mayer-Suess L, Peball T, Komarek S *et al.* Disparities between guideline statements on acute and post-acute management of cervical artery dissection. Rev Cardiovasc Med 2022; 23:9. http://www.ncbi.nlm.nih.gov/pubmed/?term=35092201

Pleiotropic effects of statins

1. Kornelsen V, Unger M, Kumar A. Atorvastatin does not display an antimicrobial activity on its own nor potentiates the activity of other antibiotics against Acinetobacter baumannii ATCC17978 or A. baumannii AB030. Access Microbiol 2021; 3:000288. http://www.ncbi.nlm.nih.gov/pubmed/?term=35018330
2. Chen D, Sui L, Chen C *et al.* Atorvastatin suppresses NLRP3 inflammasome activation in intracerebral hemorrhage via TLR4- and MyD88-dependent pathways. Aging 2022; 14:462-476. http://www.ncbi.nlm.nih.gov/pubmed/?term=35017318
3. Kurtul BE, Kurtul A, Ergashev K. Is There a Relationship between Statin Use and Corneal Specular Microscopy and Topography Findings? Beyoglu Eye J 2021; 6:280-284. http://www.ncbi.nlm.nih.gov/pubmed/?term=35059574
4. Yang C, Ni HY, Yin JJ *et al.* Atorvastatin ameliorates depressive behaviors via regulation of α7nAChR expression by PI3K/Akt-BDNF pathway in mice. Biochem Biophys Res Commun 2022; 593:57-64. http://www.ncbi.nlm.nih.gov/pubmed/?term=35063770

5. Khajeh E, Moghadam AD, Eslami P *et al.* Statin use is associated with the reduction in hepatocellular carcinoma recurrence after liver surgery. BMC Cancer 2022; 22:91. http://www.ncbi.nlm.nih.gov/pubmed/?term=35062904
6. Sharma A, Sanjeev K, Selvanathan VMJ *et al.* The evaluation of cytotoxicity and cytokine IL-6 production of root canal sealers with and without the incorporation of simvastatin: an invitro study. BMC oral health 2022; 22:6. http://www.ncbi.nlm.nih.gov/pubmed/?term=35012572
7. Al-Karaghouli M, Fuentes S, Davyduke T *et al.* Impact of statin treatment on non-invasive tests based predictions of fibrosis in a referral pathway for NAFLD. BMJ Open Gastroenterol 2022; 9. http://www.ncbi.nlm.nih.gov/pubmed/?term=34992072
8. Inasu M, Feldt M, Jernström H *et al.* Statin use and patterns of breast cancer recurrence in the Malmö Diet and Cancer Study. Breast 2022; 61:123-128. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995921
9. Acheampong T, Lee Argov EJ, Terry MB *et al.* Current regular aspirin use and mammographic breast density: a cross-sectional analysis considering concurrent statin and metformin use. Cancer Causes Control 2022; 33:363-371. http://www.ncbi.nlm.nih.gov/pubmed/?term=35022893
10. Larsen SB, Dehlendorff C, Skriver C *et al.* Prescription rates for commonly used drugs before and after a prostate cancer diagnosis. Cancer Causes Control 2022; 33:417-428. http://www.ncbi.nlm.nih.gov/pubmed/?term=35006514
11. Cao Y, Chen Z, Jia J *et al.* Rosuvastatin Alleviates Coronary Microembolization-Induced Cardiac Injury by Suppressing Nox2-Induced ROS Overproduction and Myocardial Apoptosis. Cardiovasc Toxicol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34997458
12. Abolghasemi R, Ebrahimi-Barough S, Mohamadnia A, Ai J. Synergistic inhibitory effect of human umbilical cord matrix mesenchymal stem cells-conditioned medium and atorvastatin on MCF7 cancer cells viability and migration. Cell Tissue Bank 2022:1-23. http://www.ncbi.nlm.nih.gov/pubmed/?term=34988840
13. Aydh A, Motlagh RS, Alshyarba M *et al.* Association of statins use and mortality outcomes in prostate cancer patients who received androgen deprivation therapy: a systematic review and meta-analysis. Cent European J Urol 2021; 74:484-490. http://www.ncbi.nlm.nih.gov/pubmed/?term=35083066
14. Goh MJ, Sinn DH. Statin and aspirin for chemoprevention of hepatocellular carcinoma: Time to use or wait further? Clinical and molecular hepatology 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35021597
15. Diniz JA, Barbirato DDS, do Nascimento EHL *et al.* Tomographic evaluation of the effect of simvastatin topical use on alveolar bone microarchitecture, pain and swelling after mandibular third molar extraction: a randomized controlled trial. Clinical oral investigations 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35064813
16. Jain P, Farooq U, Nainwal LM *et al.* In-silico validation of the proposed treatment strategy of periodontitis. Comb Chem High Throughput Screen 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35081885
17. Xu M, Luo LL, Du MY *et al.* Simvastatin Improves Outcomes of Endotoxin-induced Coagulopathy by Regulating Intestinal Microenvironment. Current medical science 2022; 42:26-38. http://www.ncbi.nlm.nih.gov/pubmed/?term=35041135
18. Gergen AK, Madsen HJ, Li A *et al.* Simvastatin Inhibits Histologic Changes Associated with Gastroduodenal Reflux in a Murine Model. Digestive diseases and sciences 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35001242
19. Wei T, Li J, Fu G *et al.* Simvastatin Improves Myocardial Ischemia Reperfusion Injury through KLF-Regulated Alleviation of Inflammation. Disease markers 2022;

2022:7878602. http://www.ncbi.nlm.nih.gov/pubmed/?term=35059045
20. Merat S, Jafari E, Radmard AR *et al.* Polypill for prevention of cardiovascular diseases with focus on non-alcoholic steatohepatitis: the PolyIran-Liver trial. Eur Heart J 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35048107
21. Mohajer B, Guermazi A, Conaghan PG *et al.* Statin use and MRI subchondral bone marrow lesion worsening in generalized osteoarthritis: longitudinal analysis from Osteoarthritis Initiative data. European radiology 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35043291
22. Li M, Liu X. Pitavastatin maintains MAPK7 expression and alleviates angiotensin II-induced vascular endothelial cell inflammation and injury. Experimental and therapeutic medicine 2022; 23:132. http://www.ncbi.nlm.nih.gov/pubmed/?term=35069813
23. Tu B, Tang Y, Cheng Y *et al.* Association of Prior to Intensive Care Unit Statin Use With Outcomes on Patients With Acute Kidney Injury. Frontiers in medicine 2021; 8:810651. http://www.ncbi.nlm.nih.gov/pubmed/?term=35004788
24. Champigny C, Morin-Parent F, Bellehumeur-Lefebvre L *et al.* Combining Lovastatin and Minocycline for the Treatment of Fragile X Syndrome: Results From the LovaMiX Clinical Trial. Frontiers in psychiatry 2021; 12:762967. http://www.ncbi.nlm.nih.gov/pubmed/?term=35058813
25. Gupta B, Sharma G, Sharma P *et al.* Self-Gelling Solid Lipid Nanoparticle Hydrogel Containing Simvastatin as Suitable Wound Dressing: An Investigative Study. Gels 2022; 8. http://www.ncbi.nlm.nih.gov/pubmed/?term=35049593
26. Al-Kuraishy HM, Al-Gareeb AI, Naji MT. Statin therapy associated with decreased neuronal injury measured by serum S100β levels in patients with acute ischemic stroke. Int J Crit Illn Inj Sci 2021; 11:246-252. http://www.ncbi.nlm.nih.gov/pubmed/?term=35070915
27. Kanai D, Fujii H, Nakai K *et al.* Statin Use Influence on the Occurrence of Acute Kidney Injury in Patients with Peripheral Arterial Disease. J Atheroscler Thromb 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35013022
28. Chan WK, Tan SS, Chan SP *et al.* Malaysian Society of Gastroenterology and Hepatology consensus statement on metabolic dysfunction-associated fatty liver disease. Journal of gastroenterology and hepatology 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35080048
29. Mahmud N, Chapin S, Goldberg DS *et al.* Statin exposure is associated with reduced development of acute-on-chronic liver failure in a Veterans Affairs cohort. J Hepatol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35066085
30. Wijaya A, Wang Y, Tang D *et al.* A study of lovastatin and L-arginine co-loaded PLGA nanomedicine for enhancing nitric oxide production and eNOS expression. Journal of materials chemistry. B 2022; 10:607-624. http://www.ncbi.nlm.nih.gov/pubmed/?term=34994373
31. Yu Z, Guo J, Liu Y *et al.* Nano delivery of simvastatin targets liver sinusoidal endothelial cells to remodel tumor microenvironment for hepatocellular carcinoma. J Nanobiotechnology 2022; 20:9. http://www.ncbi.nlm.nih.gov/pubmed/?term=34983554
32. Sherafat A, Sahebnasagh A, Rahmany R *et al.* The preventive effect of the combination of atorvastatin and nortriptyline in migraine-type headache: a randomized, triple-blind, placebo-controlled trial. Neurol Res 2022:1-7. http://www.ncbi.nlm.nih.gov/pubmed/?term=35037597
33. Massardo T, Quintana JC, Risco L *et al.* Effect of Low-Dose Statins in Addition to Standard Therapy on Brain Perfusion and Neurocognitive Performance in Patients with Major Depressive Disorder. Neuropsychobiology 2022:1-15. http://www.ncbi.nlm.nih.gov/pubmed/?term=35093946

34. Alsehli AM, Liao S, Al-Sabri MH *et al.* The Statin Target HMG-Coenzyme a Reductase (Hmgcr) Regulates Sleep Homeostasis in Drosophila. Pharmaceuticals (Basel, Switzerland) 2022; 15. http://www.ncbi.nlm.nih.gov/pubmed/?term=35056136
35. Eshtiaghi A, Popovic MM, Sothivannan A *et al.* Statin Use and The Incidence of Age-Related Macular Degeneration: A Meta-Analysis. Retina 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34983903
36. Tulbah AS, Gamal A. Design and Characterization of Atorvastatin Dry Powder Formulation as a potential Lung Cancer Treatment. Saudi pharmaceutical journal : SPJ : the official publication of the Saudi Pharmaceutical Society 2021; 29:1449-1457. http://www.ncbi.nlm.nih.gov/pubmed/?term=35002383
37. Yu Y, Wang L, Zhu X *et al.* Sodium ozagrel and atorvastatin for type 2 diabetes patients with lacunar cerebral infarction. World J Diabetes 2021; 12:2096-2106. http://www.ncbi.nlm.nih.gov/pubmed/?term=35047123
38. Kim H, Kim JK. Evidence on Statins, Omega-3, and Prostate Cancer: A Narrative Review. World J Mens Health 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35021299

Primary Prevention

1. Michaeli DT, Michaeli JC, Boch T, Michaeli T. Cost-Effectiveness of Lipid-Lowering Therapies for Cardiovascular Prevention in Germany. Cardiovasc Drugs Ther 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35015186
2. Arora S, Qamar A, Gupta P *et al.* Guideline based eligibility for primary prevention statin therapy - Insights from the North India ST-elevation myocardial infarction registry (NORIN-STEMI). J Clin Lipidol 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34996741
3. Sarraju A, Ward A, Li J *et al.* Personalizing cholesterol treatment recommendations for primary cardiovascular disease prevention. Scientific reports 2022; 12:23. http://www.ncbi.nlm.nih.gov/pubmed/?term=34996943

Registry data

1. Minhas AMK, Ijaz SH. Disparities in Statin Use During Outpatient Visits of Adults (Age 18 to 64 Years) With Coronary Heart Disease in the Medicaid Population in the United States (from the National Ambulatory Medical Care Survey Database 2006 to 2015). Am J Cardiol 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34974897
2. Ziganshina AP, Gemoets DE, Kaminsky LS, Gosmanov AR. Baseline hemoglobin A1c and risk of statin-induced diabetes: results of Veterans Affairs Database analysis. BMJ open diabetes research & care 2022; 10. http://www.ncbi.nlm.nih.gov/pubmed/?term=34987054
3. Al-Karaghouli M, Fuentes S, Davyduke T *et al.* Impact of statin treatment on non-invasive tests based predictions of fibrosis in a referral pathway for NAFLD. BMJ Open Gastroenterol 2022; 9. http://www.ncbi.nlm.nih.gov/pubmed/?term=34992072
4. Inasu M, Feldt M, Jernström H *et al.* Statin use and patterns of breast cancer recurrence in the Malmö Diet and Cancer Study. Breast 2022; 61:123-128. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995921
5. Acheampong T, Lee Argov EJ, Terry MB *et al.* Current regular aspirin use and mammographic breast density: a cross-sectional analysis considering concurrent statin and metformin use. Cancer Causes Control 2022; 33:363-371. http://www.ncbi.nlm.nih.gov/pubmed/?term=35022893

6. Larsen SB, Dehlendorff C, Skriver C *et al.* Prescription rates for commonly used drugs before and after a prostate cancer diagnosis. Cancer Causes Control 2022; 33:417-428. http://www.ncbi.nlm.nih.gov/pubmed/?term=35006514
7. Mohajer B, Guermazi A, Conaghan PG *et al.* Statin use and MRI subchondral bone marrow lesion worsening in generalized osteoarthritis: longitudinal analysis from Osteoarthritis Initiative data. European radiology 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35043291
8. Alsehli AM, Rukh G, Clemensson LE *et al.* Differential associations of statin treatment and polymorphism in genes coding for HMGCR and PCSK9 to risk for insomnia. Frontiers in bioscience (Landmark edition) 2021; 26:1453-1463. http://www.ncbi.nlm.nih.gov/pubmed/?term=34994160
9. Locuratolo N, Scicchitano P, Antoncecchi E *et al.* (Follow-up of patients after an acute coronary event: the Apulia PONTE-SCA program). Giornale italiano di cardiologia (2006) 2022; 23:63-74. http://www.ncbi.nlm.nih.gov/pubmed/?term=34985464
10. Naghavi M, Kleis S, Tanaka H *et al.* High Frequency of Microvascular Dysfunction in US Outpatient Clinics: A Sign of High Residual Risk? Data from 7,105 Patients. Int J Vasc Med 2022; 2022:4224975. http://www.ncbi.nlm.nih.gov/pubmed/?term=35036009
11. McCaughey C, Ranganathan D, Kerins M *et al.* Dyslipidaemia management in the cardiac rehabilitation clinic of a tertiary referral centre: analysis of the impact of new ESC guidance on LDL-C target achievement. Irish journal of medical science 2022:1-9. http://www.ncbi.nlm.nih.gov/pubmed/?term=35031936
12. Kuno T, So M, Iwagami M *et al.* The association of statins use with survival of patients with COVID-19. J Cardiol 2021; 79:494-500. http://www.ncbi.nlm.nih.gov/pubmed/?term=34974938
13. Funamizu T, Iwata H, Chikata Y *et al.* A Prognostic Merit of Statins in Patients with Chronic Hemodialysis after Percutaneous Coronary Intervention-A 10-Year Follow-Up Study. Journal of clinical medicine 2022; 11. http://www.ncbi.nlm.nih.gov/pubmed/?term=35054080
14. Yu J, Wang AA, Zimmerman LP *et al.* A Cohort Analysis of Statin Treatment Patterns Among Small-Sized Primary Care Practices. Journal of general internal medicine 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34997391
15. Xurui Huang N, Sanderson JE, Fang F *et al.* Passive Prescription of Secondary Prevention Medical Therapy during Index Hospitalization for Acute Myocardial Infarction Is Prevalent and Associated with Adverse Clinical Outcomes. J Healthc Eng 2021; 2021:9543912. http://www.ncbi.nlm.nih.gov/pubmed/?term=34976331
16. Mahmud N, Chapin S, Goldberg DS *et al.* Statin exposure is associated with reduced development of acute-on-chronic liver failure in a Veterans Affairs cohort. J Hepatol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35066085
17. Hunt NB, Emmens JE, Irawati S *et al.* Sex disparities in the effect of statins on lipid parameters: The PharmLines Initiative. Medicine (Baltimore) 2022; 101:e28394. http://www.ncbi.nlm.nih.gov/pubmed/?term=35029178
18. Shelly S, Mielke MM, Paul P *et al.* Incidence and Prevalence of Immune-mediated Necrotizing Myopathy in Adults in Olmsted County, Minnesota. Muscle Nerve 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35064938
19. Iannuzzo G, Buonaiuto A, Calcaterra I *et al.* Association between causative mutations and response to PCSK9 inhibitor therapy in subjects with familial hypercholesterolemia: A single center real-world study. Nutrition, metabolism, and cardiovascular diseases : NMCD 2021. http://www.ncbi.nlm.nih.gov/pubmed/?term=34991937
20. Berge CA, Eskerud I, Almeland EB *et al.* Relationship between hypertension and non-obstructive coronary artery disease in chronic coronary syndrome (the NORIC

registry). PLoS One 2022; 17:e0262290. http://www.ncbi.nlm.nih.gov/pubmed/?term=35061769
21. Gupta L, Nune A, Naveen R *et al.* The prevalence and clinical characteristics of anti-HMGCR (anti-3-hydroxy-3-methyl-glutaryl-coenzyme A reductase) antibodies in idiopathic inflammatory myopathy: an analysis from the MyoCite registry. Rheumatology international 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35031847
22. Masilela C, Adeniyi OV, Benjeddou M. Prevalence, patterns and determinants of dyslipidaemia among South African adults with comorbidities. Scientific reports 2022; 12:337. http://www.ncbi.nlm.nih.gov/pubmed/?term=35013433

Renal Disease

1. Tu B, Tang Y, Cheng Y *et al.* Association of Prior to Intensive Care Unit Statin Use With Outcomes on Patients With Acute Kidney Injury. Frontiers in medicine 2021; 8:810651. http://www.ncbi.nlm.nih.gov/pubmed/?term=35004788
2. Kanai D, Fujii H, Nakai K *et al.* Statin Use Influence on the Occurrence of Acute Kidney Injury in Patients with Peripheral Arterial Disease. J Atheroscler Thromb 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35013022
3. Funamizu T, Iwata H, Chikata Y *et al.* A Prognostic Merit of Statins in Patients with Chronic Hemodialysis after Percutaneous Coronary Intervention-A 10-Year Follow-Up Study. Journal of clinical medicine 2022; 11. http://www.ncbi.nlm.nih.gov/pubmed/?term=35054080

Reviews

1. Goh MJ, Sinn DH. Statin and aspirin for chemoprevention of hepatocellular carcinoma: Time to use or wait further? Clinical and molecular hepatology 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35021597
2. McNavish DE, German CA, Shapiro MD. Should a Statin be Given to All Hypertensive Patients? Curr Hypertens Rep 2022; 24:21-27. http://www.ncbi.nlm.nih.gov/pubmed/?term=35072922
3. Fici F, Faikoglu G, Tarim BA *et al.* Pitavastatin: Coronary Atherosclerotic Plaques Changes and Cardiovascular Prevention. High blood pressure & cardiovascular prevention : the official journal of the Italian Society of Hypertension 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35064911
4. Kopecky SL, Alias S, Klodas E, Jones PJH. Reduction in Serum LDL Cholesterol Using a Nutrient Compendium in Hyperlipidemic Adults Unable or Unwilling to Use Statin Therapy: A Double-Blind Randomized Crossover Clinical Trial. The Journal of nutrition 2022; 152:458-465. http://www.ncbi.nlm.nih.gov/pubmed/?term=35079806
5. Coy K, Stys A, Stys T, DeVries J. Proprotein Convertase Subtilism/Kexin 9 (PCSK9) Inhibitors: Adding to the Armamentarium of the Primary Care Physician. South Dakota medicine : the journal of the South Dakota State Medical Association 2021; 74:454-456. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995425
6. Kim H, Kim JK. Evidence on Statins, Omega-3, and Prostate Cancer: A Narrative Review. World J Mens Health 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35021299

Safety and side effects

1. Zabihi M, Askarian F, Hekmatimoghaddam S *et al.* Ascorbic Acid Significantly Decreases Creatine Kinase Plasma Levels in an Animal Model of Statin/Fibrate-Induced Myopathy. Adv Pharmacol Pharm Sci 2021; 2021:5539595. http://www.ncbi.nlm.nih.gov/pubmed/?term=35005624
2. Ho J, Kim B, Kim KS *et al.* Statin Supply and Polydrug Use in Older Adults: A Focus on Drug Combinations that Reduce Bone Density. Ann Geriatr Med Res 2021; 25:269-277. http://www.ncbi.nlm.nih.gov/pubmed/?term=34986544
3. Ziganshina AP, Gemoets DE, Kaminsky LS, Gosmanov AR. Baseline hemoglobin A1c and risk of statin-induced diabetes: results of Veterans Affairs Database analysis. BMJ open diabetes research & care 2022; 10. http://www.ncbi.nlm.nih.gov/pubmed/?term=34987054
4. Türkmen D, Masoli JAH, Kuo CL *et al.* Statin treatment effectiveness and the SLCO1B1*5 reduced function genotype: Long-term outcomes in women and men. Br J Clin Pharmacol 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35083771
5. Voora D, Baye J, McDermaid A *et al.* SLCO1B1*5 Allele is Associated with Atorvastatin Discontinuation and Adverse Muscle Symptoms in the Context of Routine Care. Clinical pharmacology and therapeutics 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35034348
6. Al Megalli M, Bashir S, Qadah H *et al.* Colchicine-Induced Acute Myopathy: Case Study From Saudi Arabia. Cureus 2021; 13:e20290. http://www.ncbi.nlm.nih.gov/pubmed/?term=35028201
7. Osborn H, Grossman D, Kochhar S *et al.* A Rare Case of Delayed Onset Multi-Drug Interaction Resulting in Rhabdomyolysis in a 66-Year-Old Male. Cureus 2021; 13:e20035. http://www.ncbi.nlm.nih.gov/pubmed/?term=34987920
8. Pirillo A, Catapano AL. New insights into the role of bempedoic acid and ezetimibe in the treatment of hypercholesterolemia. Current opinion in endocrinology, diabetes, and obesity 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34980867
9. Alsehli AM, Rukh G, Clemensson LE *et al.* Differential associations of statin treatment and polymorphism in genes coding for HMGCR and PCSK9 to risk for insomnia. Frontiers in bioscience (Landmark edition) 2021; 26:1453-1463. http://www.ncbi.nlm.nih.gov/pubmed/?term=34994160
10. Milner E, Ainsworth M, Gleaton M, Bookstaver D. Assessment of Anti-Xa activity in patients receiving concomitant apixaban with strong p-glycoprotein inhibitors and statins. Journal of clinical pharmacy and therapeutics 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35032137
11. Roušarová J, Šíma M, Kozlík P *et al.* Changes in Rosuvastatin Pharmacokinetics During Postnatal Ontogenesis in Rats. Journal of pharmacy & pharmaceutical sciences : a publication of the Canadian Society for Pharmaceutical Sciences, Societe canadienne des sciences pharmaceutiques 2021; 25:1-8. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995472
12. Wei J, Huan Y, Heng Z *et al.* Dynamic urine proteome changes in a rat model of simvastatin-induced skeletal muscle injury. J Proteomics 2022; 254:104477. http://www.ncbi.nlm.nih.gov/pubmed/?term=34990819
13. Chen Z, Chow TCH, Wang S *et al.* Reaction of the Liver upon Long-Term Treatment of Fluoxetine and Atorvastatin Compared with Alcohol in a Mouse Model. J Toxicol 2021; 2021:9974969. http://www.ncbi.nlm.nih.gov/pubmed/?term=35003254
14. Sigrist K, Winkler J, Westphalen A, Yuen B. (Citrus paradisi (grapefruit)-a negative interaction with a statin). Med Klin Intensivmed Notfmed 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34989821
15. Wang L, Zhu L, Zheng Z *et al.* Mevalonate pathway orchestrates insulin signaling via RAB14 geranylgeranylation-mediated phosphorylation of AKT to regulate hepatic

glucose metabolism. Metabolism 2022; 128:155120. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995578
16. Shelly S, Mielke MM, Paul P *et al.* Incidence and Prevalence of Immune-mediated Necrotizing Myopathy in Adults in Olmsted County, Minnesota. Muscle Nerve 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35064938
17. Ding C, Li Y, Li X *et al.* QiShenYiQi pills, a Chinese patent medicine, increase bioavailability of atorvastatin by inhibiting Mrp2 expression in rats. Pharmaceutical biology 2022; 60:185-194. http://www.ncbi.nlm.nih.gov/pubmed/?term=35001796
18. Gupta L, Nune A, Naveen R *et al.* The prevalence and clinical characteristics of anti-HMGCR (anti-3-hydroxy-3-methyl-glutaryl-coenzyme A reductase) antibodies in idiopathic inflammatory myopathy: an analysis from the MyoCite registry. Rheumatology international 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35031847
19. Mao LL, Zhang ZL, Xu B *et al.* (A case of acute liver injury caused by atorvastatin in a patient with SLCO1B1*1b haplotype). Zhonghua Gan Zang Bing Za Zhi 2021; 29:1205-1206. http://www.ncbi.nlm.nih.gov/pubmed/?term=35045640

Stroke and CNS

1. Firnhaber JM, Powell CS. Arterial Atherosclerosis: Vascular Surgery Interventions. American family physician 2022; 105:65-72. http://www.ncbi.nlm.nih.gov/pubmed/?term=35029953
2. Kumi F, Bugri AA, Adjei S *et al.* Quality of acute ischemic stroke care at a tertiary Hospital in Ghana. BMC Neurol 2022; 22:28. http://www.ncbi.nlm.nih.gov/pubmed/?term=35039001
3. Tsankof A, Tziomalos K. The Role of Lipid-Lowering Treatment in the Secondary Prevention of Ischemic Stroke. Diseases (Basel, Switzerland) 2021; 10. http://www.ncbi.nlm.nih.gov/pubmed/?term=35076490
4. Giannotti N, McNulty J, Foley S *et al.* Association Between 18-FDG Positron Emission Tomography and MRI Biomarkers of Plaque Vulnerability in Patients With Symptomatic Carotid Stenosis. Frontiers in neurology 2021; 12:731744. http://www.ncbi.nlm.nih.gov/pubmed/?term=35002912
5. Al-Kuraishy HM, Al-Gareeb AI, Naji MT. Statin therapy associated with decreased neuronal injury measured by serum S100β levels in patients with acute ischemic stroke. Int J Crit Illn Inj Sci 2021; 11:246-252. http://www.ncbi.nlm.nih.gov/pubmed/?term=35070915
6. Blecha M, DeJong M, Carlson K. Risk Factors for Mortality within 5 Years of Carotid Endarterectomy for Asymptomatic Stenosis. Journal of vascular surgery 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35090991
7. Sridharan ND, Asaadi S, Thirumala PD, Avgerinos ED. A systematic review of cognitive function after carotid endarterectomy in asymptomatic patients. Journal of vascular surgery 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=34995717
8. Wang WT, Wu TC, Tseng WK *et al.* Prognostic indicators for the onset of ischaemic versus haemorrhagic stroke in stable coronary artery disease. Medicine (Baltimore) 2021; 100:e27973. http://www.ncbi.nlm.nih.gov/pubmed/?term=35049202
9. Al-Kuraishy HM, Hussien NR, Al-Naimi MS *et al.* Statins Therapy Improves Acute Ischemic Stroke in Patients with Cardio-metabolic Disorders Measured by Lipoprotein-Associated Phospholipase A2 (Lp-PLA2): New Focal Point. Neurology India 2021; 69:1637-1644. http://www.ncbi.nlm.nih.gov/pubmed/?term=34979662
10. Massardo T, Quintana JC, Risco L *et al.* Effect of Low-Dose Statins in Addition to Standard Therapy on Brain Perfusion and Neurocognitive Performance in Patients

with Major Depressive Disorder. Neuropsychobiology 2022:1-15. http://www.ncbi.nlm.nih.gov/pubmed/?term=35093946
11. Yu Y, Wang L, Zhu X *et al.* Sodium ozagrel and atorvastatin for type 2 diabetes patients with lacunar cerebral infarction. World J Diabetes 2021; 12:2096-2106. http://www.ncbi.nlm.nih.gov/pubmed/?term=35047123

Triglycerides/HDL

1. Boccara F, Caramelli B, Calmy A *et al.* Long-term effects of evolocumab in participants with HIV and dyslipidemia: results from the open-label extension period. Aids 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35025817
2. Bogari NM, Babalghith AO, Bouazzaoui A *et al.* Assessment of genetic polymorphism associated with ATP-binding cassette transporter A1 (ABCA1) gene and fluctuations in serum lipid profile levels in patients with coronary artery disease. Saudi pharmaceutical journal : SPJ : the official publication of the Saudi Pharmaceutical Society 2021; 29:1458-1465. http://www.ncbi.nlm.nih.gov/pubmed/?term=35002384
3. Masilela C, Adeniyi OV, Benjeddou M. Prevalence, patterns and determinants of dyslipidaemia among South African adults with comorbidities. Scientific reports 2022; 12:337. http://www.ncbi.nlm.nih.gov/pubmed/?term=35013433

Trials

1. Xu M, Zhu X, Wu J *et al.* PCSK9 inhibitor recaticimab for hypercholesterolemia on stable statin dose: a randomized, double-blind, placebo-controlled phase 1b/2 study. BMC Med 2022; 20:13. http://www.ncbi.nlm.nih.gov/pubmed/?term=35039035
2. Atorvastatin versus placebo in patients with covid-19 in intensive care: randomized controlled trial. Bmj 2022; 376:e068407. http://www.ncbi.nlm.nih.gov/pubmed/?term=34996756
3. Diniz JA, Barbirato DDS, do Nascimento EHL *et al.* Tomographic evaluation of the effect of simvastatin topical use on alveolar bone microarchitecture, pain and swelling after mandibular third molar extraction: a randomized controlled trial. Clinical oral investigations 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35064813
4. Merat S, Jafari E, Radmard AR *et al.* Polypill for prevention of cardiovascular diseases with focus on non-alcoholic steatohepatitis: the Polylran-Liver trial. Eur Heart J 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35048107
5. Torguson R, Mintz GS, Zhang C *et al.* Lipid-rich plaque density and low-density lipoprotein cholesterol in statin-treated versus statin-naïve patients: a post hoc analysis of the LRP study. EuroIntervention : journal of EuroPCR in collaboration with the Working Group on Interventional Cardiology of the European Society of Cardiology 2022. http://www.ncbi.nlm.nih.gov/pubmed/?term=35037626
6. Champigny C, Morin-Parent F, Bellehumeur-Lefebvre L *et al.* Combining Lovastatin and Minocycline for the Treatment of Fragile X Syndrome: Results From the LovaMiX Clinical Trial. Frontiers in psychiatry 2021; 12:762967. http://www.ncbi.nlm.nih.gov/pubmed/?term=35058813
7. Singh N, Bhatt DL, Miller M *et al.* Consistency of Benefit of Icosapent Ethyl by Background Statin Type in REDUCE-IT. J Am Coll Cardiol 2022; 79:220-222. http://www.ncbi.nlm.nih.gov/pubmed/?term=35027114

Women and elderly

1. **Ho J, Kim B, Kim KS *et al.* Statin Supply and Polydrug Use in Older Adults: A Focus on Drug Combinations that Reduce Bone Density. Ann Geriatr Med Res 2021; 25:269-277.** http://www.ncbi.nlm.nih.gov/pubmed/?term=34986544
2. **Costantine MM, Lawrence-Cleary K, Saade G, Wapner RJ. Letter by Costantine et al Regarding Article, "Pravastatin Versus Placebo in Pregnancies at High Risk of Term Preeclampsia". Circulation 2022; 145:e115-e116.** http://www.ncbi.nlm.nih.gov/pubmed/?term=35073177
3. **Paneroni M, Scalvini S, Corrà U *et al.* The Impact of Cardiac Rehabilitation on Activities of Daily Life in Elderly Patients With Heart Failure. Front Physiol 2021; 12:785501.** http://www.ncbi.nlm.nih.gov/pubmed/?term=35069247
4. **Hunt NB, Emmens JE, Irawati S *et al.* Sex disparities in the effect of statins on lipid parameters: The PharmLines Initiative. Medicine (Baltimore) 2022; 101:e28394.** http://www.ncbi.nlm.nih.gov/pubmed/?term=35029178