

**Article title**

Pharmacist interventions in osteoporosis management: a systematic review

**Journal name**

Osteoporosis International

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**Online Resource 4** Studies excluded following full-text screening

Title	Authors	Year	Journal	Volume	Issue	Pages	DOI	Exclusion reason
Osteoporosis in long-term care residents with multiple sclerosis	Ryan-Haddad, Ann M.; Lenz, Thomas L.; Degner, Kayleen; Faulkner, Michele A.	2005	Consultant Pharmacist	20	2	128-136	10.4140/TCP.n.2005.128	Study type
Two-year persistence with teriparatide improved significantly after introduction of an educational and motivational support program	van Maren, M. A.; Wyers, C. E.; Driessen, J. H. M.; Visser, J. V.; de Vries, F.; van de Wijdeven, K.; Gevers, S.; Lems, W. F.; Emmelot-Vonk, M. H.; van den Bergh, J. P. W.	2019	Osteoporosis International	30	9	1837-1844	10.1007/s00198-019-05052-0	Study type
Building for better bones: evaluation of a clinical pathway in the secondary prevention of osteoporotic fractures	Sofie, Saey; Yves, Piette; Barbara, Verstraete; Margareta, Lambert; Raf, Van Hoeyweghen; Bruno, Vandekerckhove; Marc, Haspeslagh; Veerle, Grootaert	2018	European Journal of Hospital Pharmacy	25	4	210-213	10.1136/ejhpharm-2016-000906	Study type

Ability of community pharmacists to promote self-care and self-medication by local residents [I]: Improvements in bone mineral density	Wada, Y.; Ennyu, S.; Shimokawa, K. I.; Ishii, F.	2017	Drug Discoveries & Therapeutics	11	1	35-40	10.5582/ddt.2016.01075	Study type
Impact of Pharmacist-Physician Collaboration on Osteoporosis Treatment Rates	Bowers, B. L.; Drew, A. M.; Verry, C.	2018	Annals of Pharmacotherapy	52	9	876-883	10.1177/1060028018770622	Study type
A pharmacist-run anabolic osteoporosis clinic: An abaloparatide descriptive report	McGreevy, J. L.; Kane, M. P.; Busch, R. S.; Bakst, G.; ElDeiry, S.	2019	Journal of the American Pharmacists Association	59		593-597	10.1016/j.japh.2019.03.017	Study type
Challenges to prevent secondary fractures in patients with hip fractures in Joetsu Myoko, Japan through the increased use of osteoporosis treatment and collaboration with family doctors	Suzuki, N.; Arai, K.; Kon, S.; Yamanaka, K.; Otsuka, H.; Koizumi, M.; Hosaka, N.; Tsuchiya, M.; Mochizuki, T.; Kuraishi, T.; Murayama, T.; Tashi, H.; Oike, N.; Wakasugi, M.; Takahashi, Y.; Nakadai, M.; Endo, N.	2017	Journal of Bone Mineral Metabolism	35	3	315-323	10.1007/s00774-016-0758-7	Study type
Education and exercise program improves osteoporosis knowledge and changes calcium and vitamin D dietary intake in community dwelling elderly	Park, K. S.; Yoo, J. I.; Kim, H. Y.; Jang, S.; Park, Y.; Ha, Y. C.	2017	BMC Public Health	17	1	966	10.1186/s12889-017-4966-4	Study type
Magnitude of applicability of clinical practice guidelines for diagnosis, prevention and treatment of osteoporosis in pharmacy practice	Khaliq, Sheikh A.; Naqvi, Syed B. S.; Fatima, Bilqees; Fatima, Anab	2017	Latin American Journal of Pharmacy	36	7	1322-1327		Study type
Osteoporosis screening and risk-reduction services provided in community pharmacies	Issets, B.J; Bond, W.	1997	Minesota Pharmacist	51	6	7-8, 18, 22-23, 26-29		Study type
Strategies to overcome barriers to implementing osteoporosis and fracture prevention guidelines in long-term care: a qualitative analysis of action plans suggested by front line staff in Ontario, Canada	Alamri, S. H.; Kennedy, C. C.; Marr, S.; Lohfeld, L.; Skidmore, C. J.; Papaioannou, A.	2015	BMC Geriatrics	15		94	10.1186/s12877-015-0099-8	Study type
Osteoporosis prescribing in long-term care: impact of a provincial knowledge translation strategy	Kennedy, Courtney C.; Ioannidis, George; Thabane, Lehana; Adachi, Jonathan D.; O'Donnell, Denis; Giangregorio, Lora M.; Pickard, Laura E.; Papaioannou, Alexandra	2015	Canadian journal on aging	34	2	137-148	10.1017/S0714980815000057	Study type

Development of a risk assessment and prevention strategy for osteoporosis	Lawrence, S.; Taylor, S. J.	2002	Australian Journal of Pharmacy	83		904-907		Study type
Pharmacist collaboration in a specialist adult falls and syncope clinic - orthostatic hypotension	Holden, K.; Pearson, L.; Prescott, R.	2007	ASHP Midyear Clinical Meeting	42	Dec			Study type
Pharmacist screening for risk of osteoporosis in elderly veterans	Salvig, Brent E.; Gulum, Alev H.; Walters, Stephanie A.; Edwards, Leigh B.; Fourakre, T. Neal; McKenzie, Michael S.; Marvin, Susan C.; Moseley, Michelle V.; Ansari, Ishrat J.	2016	Consultant Pharmacist	31	8	440-449	10.4140/TCP.n.2016.440	Study type
Potentially inappropriate prescribing in nursing home residents detected with the community pharmacist specific GheOP3S-tool	Tommelein, Eline; Mehuys, Els; Van Damme, Charlotte; Pattyn, Eva; Mattelin, Kristof; Boussery, Koen; Petrovic, Mirko; Somers, Annemie	2016	International Journal of Clinical Pharmacy	38	5	1063-1068	10.1007/s11096-016-0366-6	Study type
Assessing the impact of osteoporosis screening	Elliott, M. E.	2005	The Journal of the Pharmacy Society of Wisconsin		November/December	41-45		Study type
Refinement of an osteoporosis risk-assessment questionnaire for use in community pharmacy	Poh, L. S.; Taylor, S.; McAteer, S.	2008	International Journal of Pharmacy Practice	16		279-286		Study type
Exploring the current and future role of the pharmacists in osteoporosis screening and management in Malaysia	Toh, L. S.; Lai, P. S. M.; Othman, S.; Shah, A.; Dang, C. P. L.; Low, B. Y.; Wong, K. T.; Anderson, C.	2018	International Journal of Clinical Pharmacy	40	2	450-457	10.1007/s11096-018-0597-9	Study type
Awareness of osteoporosis risk assessment tools and screening recommendations among community pharmacists in Malaysia	Francis, J.; Toh, L. S.; Sellappans, R.; Loo, J. S. E.	2021	International Journal of Clinical Pharmacy	43	3	604-612	10.1007/s11096-020-01169-z	Study type
Comparative performance of annual wellness visits between pharmacists and physicians at primary care clinics	Wargo, Ryan; Johnson, Christa; Moffatt, Evelyn; Kisakye, Suzuki, Marina	2021	Journal of the American College of Clinical Pharmacy	4		1524-1533	10.1002/jac5.1544	Study type
Medication reconciliation of patients with hip fracture by clinical pharmacists	Gjerde, Anne Marie; Aa, Elizabeth; Sund, Janne; Kutschera; Stenumgard, Pal; Johnsen, Lars; Gunnar	2016	European Journal of Hospital Pharmacy	23	3	166-170	10.1136/ejpharm-2015-000741	Study type

Identify population attitude towards osteoporosis and pharmacists involvement in community education in Makkah, Saudi Arabia: A cross-sectional study	Fairaq, Arwa; Sulimani, Byader; Alahmadi, Ghada; Hijji, Nouf Adnan; Alessa, Rahma; Alharthi, Sara; Alhindi, Yosra	2021	Indian Journal of Forensic Medicine and Toxicology	15	1	857-863	10.37506/ijfmt.v15i1.13524	Study type
Evaluation of care delivery by a novel multidisciplinary bone health clinic for patients at risk of glucocorticoid-induced osteoporosis	Abdullah, H.; Koller, G.; Zuna, I.; Yuksel, N.; Charrois, T.; Mandhane, R.; Cotton, K.; Danilak, M.; Bell, H.; Ye, C.	2021	Archives of Osteoporosis	16	1	108	10.1007/s11657-021-00979-6	Study type
Osteoporosis Amongst Jordanians: Effect of Pharmacist-Directed Brochure Education on People's Knowledge	Elayeh, E.; Akour, A.; Yousef, A. M.; Farah, D.; Basheti, I.	2014	Tropical Journal of Pharmaceutical Research	13	12	2101-2108	10.4314/tjpr.v13i12.22	Study type
Interprofessional care for patients with osteoporosis in a continuing care retirement community	Masterson, J.; Woodall, T.; Wilson, C. G.; Ray, L.; Scott, M. A.	2016	Journal of the American Pharmacists Association	56		184-188	10.1016/j.aph.2016.01.004	Study type
Labor costs and economic impact of a primary care clinical pharmacy service on postfracture care in postmenopausal women	Irwin, Adriane N.; Billups, Sarah J.; Heilmann, Rachel M. F.	2015	Pharmacotherapy	35	3	243-250	10.1002/phar.1554	Study type
Point-of-care screenings at the University of Minnesota: Mechanism for civic engagement	Palombi, L. C.; Bastianelli, K.; Stratton, T.	2014	Journal of the American Pharmacists Association	54	1	56-62	10.1331/JAPhA.2014.13122	Study type
Pharmacist's role in an interdisciplinary falls clinic	Flores, Emily K.; Henry, Robin; Stewart, David W.	2011	Southern Medical Journal	104	2	143-146	10.1097/SMJ.0b013e318200c1ec	Study type
Developing a model Fracture Liaison Service consultation with patients, carers and clinicians: a Delphi survey to inform content of the iFraP complex consultation intervention	Bullock, L.; Crawford-Manning, F.; Cottrell, E.; Fleming, J.; Leyland, S.; Edwards, J.; Clark, E. M.; Thomas, S.; Chapman, S.; Gidlow, C.; Iglesias, C. P.; Protheroe, J.; Horne, R.; O'Neill, T. W.; Mallen, C.; Jinks, C.; Paskins, Z.	2021	Archives of Osteoporosis	16	1	58	10.1007/s11657-021-00913-w	Study type
Closing the osteoporotic-fracture care gap for frail older persons	Pillay, Isweri; Hussain, F.; O'Reilly, A.; Sayers, K.; Maher, J.; Ryan, S.	2021	Irish Medical Journal	114	8	P434		Study type

Implementation of a pharmacist and student pharmacist-led primary care service to identify and treat rural veterans at risk for osteoporotic fracture	Wopat, Maria; Breslow, Robert; Chesney, Kiera; McCauley, Mackenzie; Van Gysel, Reid; Gray, Andrea; Hilsenhoff, Jordan; Edwardson, Graham; Nachreiner, Joshua; Hoff, Lindsey; Gruber, Stephanie; Shattuck, Paul; Portillo, Edward	2021	Journal of the American Pharmacists Association	61		e105-e112	10.1016/j.japh.2021.07.011	Study type
Effect of patient-led cooperative follow-up by general practitioners and community pharmacists on osteoporosis treatment persistence	Poivret, Didier; Goetz, Christophe; Zevering, Yinka; Wilcke, Christophe; Noirez, Veronique	2021	International Journal of Rheumatic Diseases	24	7	912-921	10.1111/1756-185X.14146	Study type
Patient Healthcare Trajectory and its Impact on the Cost-Effectiveness of Fracture Liaison Services	Senay, A.; Fernandes, J. C.; Delisle, J.; Morin, S. N.; Dragomir, A.; Nazha, S.; Perreault, S.	2021	Journal of Bone and Mineral Research	36	3	459-468	10.1002/jbmr.4216	Study type
Successful implementation of a Fracture Liaison Service through effective change management: a qualitative study	Wozniak, L. A.; Beaupre, L. A.; Juby, A.; Kivi, P.; Majumdar, S. R.; Hanson, H. M.	2020	Archives of Osteoporos	15	1	44	10.1007/s11657-020-0692-0	Study type
Feasibility of an interprofessional collaborative osteoporosis screening programme in Malaysia	Toh, L. S.; Lai, P. S. M.; Low, B. Y.; Wong, K. T.; Anderson, C.	2020	International Journal of Clinical Pharmacy	42	1	11-17	10.1007/s11096-019-00960-x	Study type
Performance of a Fracture Liaison Service in an Orthopaedic Setting: A Report of Key Indicators and Improvement of Longitudinal Outcomes	Senay, A.; Perreault, S.; Delisle, J.; Morin, S. N.; Fernandes, J. C.	2020	Journal of Bone and Joint Surgery	102	6	486-494	10.2106/jbjs.19.00185	Study type
Community based screening and intervention to optimize preventive care of osteoporosis	Baseer, Amatul; Raqeebuddin, M. A.; Salman, Syed; Badri, V.; Lankeswar Rao, K.	2020	Journal of Pharmaceutical Sciences and Research	12	11	1437-1447		Study type
Persistence and compliance to osteoporosis therapy in a fracture liaison service: a prospective cohort study	Senay, A.; Fernandes, J. C.; Delisle, J.; Morin, S. N.; Perreault, S.	2019	Archives of Osteoporos	14	1	87	10.1007/s11657-019-0633-y	Study type
Evaluation of the need for a fracture liaison service in a patient-centered medical home	Crissman, J. K.; Woodall, T.; LaVallee, L.; Masterson, J.; Scott, M. A.	2019	Journal of the American Pharmacists Association	59		565-569	10.1016/j.japh.2019.02.010	Study type

Bone health assessments by student pharmacists during interprofessional education	Fava, Joseph P.; Whitney, Mary; O'Connell, Mary Beth; Mendez, Jennifer	2020	Currents in Pharmacy Teaching and Learning	12	9	1101-1109	10.1016/j.cptl.2020.04.019	Study type
The role of community pharmacists in the prevention and management of osteoporosis and the risk of falls: Results of a cross-sectional study and qualitative interviews	Laliberte, M. C.; Perreault, S.; Damestoy, N.; Lalonde, L.	2013	Osteoporosis International	24	6	1803-1815	10.1007/s00198-012-2171-y	Study type
Proactive pharmaceutical care interventions decrease patients' nonadherence to osteoporosis medication	Stuurman-Bieze, A. G. G.; Van Boven, J. F. M.; Vegter, S.; Hiddink, E. G.	2014	Osteoporosis International	25	6	1807-1812	10.1007/s00198-014-2659-8	Study type
Treatment and Management of Postmenopausal Osteoporosis Within an Ambulatory Care Network	Romanelli, R.J.; Leahy, A.; Jukes, T.; Ishisaka, D.Y.	2013	Journal of Pharmacy Technology	29	March/April	55-60		Study type
Bridging the osteoporosis treatment gap: performance and cost-effectiveness of a fracture liaison service	Yates, C. J.; Chauchard, M. A.; Liew, D.; Bucknill, A.; Wark, J. D.	2015	Journal of clinical densitometry	18	2	150-6	10.1016/j.jocd.2015.01.003	Study type
Use of medicines that influence falls or fractures in a residential home setting	Wilcock, M.; MacMahon, D.; Woolf, A.	2005	Pharmacy World & Science	27		220-222		Study type
Impact of community pharmacy-based osteoporosis education program on diagnosis and risk assesment for development of fractures: A model study	Sahin, Nefise Ozlen; Oz, Ozen; Sert, Hakan; Buyukservi, Benin	2005	Pharmacia	52	1-Feb	170-173		Study type
Use of the FRAX screening tool to assess fracture risk in a long-term care facility	Hanson, Laura	2013	Consultant Pharmacist	28	7	426-431	10.4140/TCP.n.2013.426	Study type
Impact of pharmacist-led community bone mineral density screenings	Summers, K. M.; Brock, T. P.	2005	The Annals of Pharmacotherapy	39		243-248	10.1345/aph.1E321	Study type
Medication monitoring and optimization: A targeted pharmacist program for effective and cost-effective improvement of chronic therapy adherence	van Boven, Job F. M.; Postma, Maarten J.; Vegter, Stefan; Hiddink, Eric G.; Stuurman-Bieze, Ada G. G.	2014	Journal of Managed Care Pharmacy	20	8	786-792	10.18553/jmcp.2014.20.8.786	Study type
Improving Osteoporosis Management in General Practice: A Pharmacist-Led Drug Use Evaluation Program	Tan, Edwin C. K.; George, Johnson; Stewart, Kay; Elliott, Rohan A.	2014	Drugs & Aging	31		703-709	10.1007/s40266-014-0194-0	Study type

Health care Passport: A population-based introductory pharmacy practice model for Medicare beneficiaries	Carr-Lopez, Sian M.; Woelfel, Joseph A.; Patel, Rajul A.; Galal, Suzanne M.; Shioji, Michael; Nicolas, Marlyn; Hoang, Dina; Rodriguez, Jennifer; Rahan, Neha	2014	Currents in Pharmacy Teaching and Learning	6	6	891-899	10.1016/j.cptl.2014.08.003	Study type
PRO-OSTEO Extend I study (improving osteoporosis management in the acute and rehabilitation settings): multicentre audit	Banakh, I.; Chao, S.	2015	Pharmacy Practice and Research	45		38-45		Study type
Impact of pharmacist intervention on osteoporosis treatment after fragility fracture: Positive effect of pharmacist information program shown in pilot study	Martin, Janet; Wazny, Lori D.; Riley, Karen	2005	Canadian Pharmaceutical Journal	138	1	37-43		Study type
Pharmacist-provided quantitative ultrasound screening for rural women at risk of osteoporosis	Naunton, Mark; Peterson, Gregory M.; Jones, Graeme	2006	Annals of Pharmacotherapy	40	1	38-44	10.1345/aph.1G208	Study type
Acceptability of pharmacy-based bone density measurement by women and primary healthcare providers	Lata, P. F.; Binkley, N. C.; Elliott, M. E.; Lata, Paul F.; Binkley, Neil C.; Elliott, Mary E.	2002	Menopause	9	6	449-455	10.1097/00042192-200211000-00011	Study type
Utilization of a pharmacist consultant to increase patient persistency	Ringer, J.; Diamond, L.; Long, K. A.; Ross, R.; Fenton, F.	1999	Michigan Pharmacist	37	Feb	22-25		Study type
Pharmacist-provided quantitative heel ultrasound screening for rural women at risk of osteoporosis	Naunton, M.; Peterson, G. M.; Jones, G.; Naunton, Mark; Peterson, Gregory M.; Jones, Graeme	2006	Annals of Pharmacotherapy	40	1	38-44	10.1345/aph.1G208	Study type
Bone health screening, education, and referral project in northwest Iowa: creating a model for community pharmacies	Johnson, J. F.; Koenigsfeld, C.; Hughell, L.; Parsa, R. A.; Bravard, S.; Johnson, June Felice; Koenigsfeld, Carrie; Hughell, Laurie; Parsa, Rahul A.; Bravard, Susan	2008	Journal of the American Pharmacists Association: JAPhA	48	3	379-387	10.1331/JAPhA.2008.07026	Study type
Osteoporosis risk screening for women in a community pharmacy	Liu, Y. F.; Nevins, J. C.; Carruthers, K. M.; Doucette, W. R.; Pan, X. Y.	2007	Journal of the American Pharmacists Association	47	4	521-526		Study type
A quality improvement study on calcium and vitamin D supplementation in long-term care	Munir, J.; Wright, R. J.; Carr, D. B.	2006	Journal of the American Medical Directors Association	7	5	305-309	10.1016/j.jamda.2005.11.006	Study type

Clinical pharmacists' role in improving osteoporosis treatment rates among elderly patients with untreated atraumatic fractures	Plushner, Susyn Lynn; Delate, Thomas; Nadrash, T. Ann	2008	Annals of Pharmacotherapy	42	3	334-340	10.1345/aph.1K541	Study type
Osteoporosis screening in an outpatient liver transplant clinic: impact of primary immunosuppression	Smallwood, G. A.; Wickman, J. M.; Martinez, E.; Stieber, A. C.; Heffron, T. G.	2002	Transplant Proceedings	34	5	1569-70	10.1016/s0041-1345(02)03026-9	Study type
Osteoporosis screening: Is screening effective? Can it be done economically? Will people pay for it?	Farina, R. D.; Corbett, A. H.; Edwards, M. D.; Kendrick, S. M.	1999	U.S. Pharmacist	24		38-43		Study type
A multidisciplinary renal clinic for corticosteroid-induced bone disease	Neyhart, Clara D.; Dooley, Mary Anne; Joy, Melanie S.	2000	Pharmacotherapy	20	2	206-216	10.1592/phco.20.3.206.34787	Study type
Osteoporosis: Point-of-Care Testing	Gonzalez, English H.; DeHart, Renee M.	2004	Annals of Pharmacotherapy	38	3	473-481	10.1345/aph.1D229	Study type
Women's Perception of Bone-Mineral Density Testing and Osteoporosis Education in the Community Pharmacy	Lai, Lydia K.; Armstrong, Edward P.; French, Rachel; Skrepnek, Grant H.; Salcido, Amista Lone	2003	Consultant Pharmacist	18	11	968-976		Study type
An opportunity for medication risk reduction, healthcare provider collaboration, and improved patient care: A retrospective analysis of osteoporosis management	Bernett, Gary B.; Feldman, S. Stephen; Martin, Harlan; Smith, Bruce C.; Raineri, Brian D.	2003	Journal of the American Medical Directors Association	4	6	329-336	10.1016/S1525-8610(04)70393-X	Study type
Pharmacist-run teriparatide clinic	Stroup, J.; Kane, M. P.; Busch, R. S.	2003	American Journal of Health-System Pharmacy	60	1	2247-2249		Study type
Improved bone health behavior using community pharmacists as educators: the Geisinger Health System Community Pharmacist Osteoporosis Education Program	Newman, E. D.; Hanus, P.	2001	Disease Management & Health Outcomes	9		329-335	10.2165/00115677-200109060-00004	Study type
Vitamin D deficiency in aged-care facilities: Prescribing support through residential medication management reviews	Gebauer, M.	2007	Journal of Pharmacy Practice and Research	37	3	194-196		Study type
Multifaceted educational program increases prescribing of preventive medication for corticosteroid induced osteoporosis	Naunton, M.; Peterson, G. M.; Jones, G.; Griffin, G. M.; Bleasel, M. D.	2004	The Journal of Rheumatology	31	3	550-6		Study type



Evaluation of calcium and vitamin D supplementation in bisphosphonate therapy	Rush, Dawn N.; Jones, Martha W.; Futrell, Debra P.; Futrell, William R.; McDowell, Joseph O.; Ferreri, Stefanie P.	2007	Journal of the American Pharmacists Association	47	6	725-728	10.1331/JAPhA.2007.06072	Study type
Community pharmacy-based implementation and evaluation of an Osteoporosis Self-Assessment Tool for Asians	Laowakul, Ampuscha; Karnchanarat, Saree; Pikulthong, Nisakorn; Ongphiphadhanakul, Boonsong; Chaiyakunapruk, Nathorn	2006	Journal of the American Pharmacists Association	46	3	391-396	10.1331/154434506777069624	Study type
Sustainability of a pharmacist-driven pathway for osteoporosis-related fractures on an orthopaedic unit after a 5-year period	Pink, Jennifer; Thomas, Lesley; Lai, Beryl; Gibb, Catherine	2012	International Journal of Pharmacy Practice	20	2	134-137	10.1111/j.2042-7174.2011.00167.x	Study type
Regional osteoporosis screening, referral, and monitoring program in community pharmacies: Findings from project ImPACT: Osteoporosis	Goode, J. V.; Swiger, K.; Bluml, B. M.	2004	Journal of the American Pharmacists Association	44	2	152-160		Study type
Measuring the impact of pharmacist intervention: Results of patient education about osteoporosis after fragility fracture	Ho, Clarene; Campbell, Anna; Cranney, Ann	2006	Canadian Journal of Hospital Pharmacy	59	4	184-193		Study type
Impact and feasibility of a community pharmacy bone mineral density screening and education program	Cerulli, J.; Zeolla, M. M.	2004	Journal of the American Pharmacists Association	44	2	161-167		Study type
Integrating a brief pharmacist intervention into practice: Osteoporosis pharmacotherapy assessment	Phillips, L.; Ferguson, R.; Diduck, K.; Lamb, D.; Jorgenson, D.	2012	Canadian Pharmacists Journal	145	5	218-220		Study type
Impact of a pharmacist-directed intervention in postmenopausal women after fracture	Heilmann, Rachel M. F.; Friesleben, Cari R.; Billups, Sarah J.	2012	American Journal of Health-System Pharmacy	69	6	504-509	10.2146/ajhp110309	Study type
Pharmacy-based bone mass measurement to assess osteoporosis risk	Elliott, Mary E.; Meek, Patrick D.; Kanous, Nathan L.; Schill, Gary R.; Weinswig, Patricia A.; Bohlman, John P.; Zimpel, Casey L.; Jensen, Brian C.; Walters, Dan R.; Sutter, Sue L.; Peterson, Andy N.; Peterson, Rhonda M.; Binkley, Neil C.; Morand, Brenda R.; Mallet, Louise	2002	Annals of Pharmacotherapy	36	4	571-577	10.1345/aph.1A299	Study type

Impact of pharmacist-provided osteoporosis education and screening in the workplace	Singla, Dana; Raney, Erin; Peters, Sondra	2006	Journal of the American Pharmacists Association	46	2	216-218	10.1016/S1544-3191(15)31564-8	Study type
Impact of a community pharmacist-directed clinic in improving screening and awareness of osteoporosis	Shapiro, Karen; Law, Anandi V.	2005	Journal of Evaluation in Clinical Practice	11	3	247-255	10.1111/j.1365-2753.2005.00531.x	Study type
Osteoporosis screening by community pharmacists: use of National Osteoporosis Foundation resources	Elliott, Mary E.; Meek, Patrick D.; Kanous, Nathan L.; Schill, Gary R.; Weinswig, Patricia A.; Bohlman, John P.; Zimpel, Casey L.; Jensen, Brian C.; Walters, Dan R.; Sutter, Sue L.; Peterson, Andy N.; Peterson, Rhonda M.; Binkley, Neil C.	2002	Journal of the American Pharmaceutical Association	42	1	101-111	10.1331/108658002763538134	Study type
Two-year changes in bone mineral density and T scores in patients treated at a pharmacist-run teriparatide clinic	Stroup, J. S.; Rivers, S. M.; Abu-Baker, A. M.; Kane, M. P.	2007	Pharmacotherapy	27	6	779-788		Study type
Evaluation of compliance with osteoporosis treatment guidelines after initiation of a pharmacist-run osteoporosis service at a family medicine clinic	Hall, L. N.; Shrader, S. P.; Ragucci, K. R.; Hall, Larissa N.; Shrader, Sarah P.; Ragucci, Kelly R.	2009	Annals of Pharmacotherapy	43	11	1781-1786	10.1345/aph.1M366	Study type
Modifying calcium and vitamin D supplementation intake in women at risk of Osteoporosis	Navarete, Jacquelyn Padilla; Machado, Matthew; Mistry, Ameer	2012	U.S. Pharmacist	37	9	37-43		Study type
Osteoporosis screening and education in community pharmacies using a team approach	Snella, Kathleen A.; Raehl, Cynthia R.; Winston, Thomas S.; MacLaughlin, Anitra A.; Fike, David S.; MacLaughlin, Eric J.	2005	Pharmacotherapy	25	3	379-386	10.1592/phco.25.3.379.61604	Study type
Organization and results of student pharmacist bone mineral density screenings in women	Harris, A. C.; Doucette, W. R.; Reist, J. C.; Nelson, K. E.	2011	Journal of the American Pharmacists Association	51	1	100-104	10.1331/JAPhA.2011.09062	Study type
Integration of pharmacists into a patient-centered medical home	Scott, M. A.; Hitch, B.; Ray, L.; Colvin, G.	2011	Journal of the American Pharmaceutical Association	51		161-166	10.1131/JAPHA.2011.10185	Study type
How can osteoporosis patients benefit more from their therapy? Adherence issues with bisphosphonate therapy	Gold, D. T.; Alexander, I. M.; Ettinger, M. P.	2006	Annals of Pharmacotherapy	40		1143-1150	10.1345/aph.1G534	Study type
Medication interventions for fall prevention in the older adult	Cooper, J. W.; Burfield, A. H.	2009	Journal of the American Pharmacists Association	49	3	e70-e84	10.1131/JAPHA.2009.09044	Study type

The impact of pharmacist intervention on the use of activated vitamin D in a tertiary referral hospital in Malaysia	Siow, J. Y.; Lai, P. S.; Chua, S. S.; Chan, S. P.	2009	International Journal of Pharmacy Practice	17		305-311	10.121/ijpp/17.05.0008	Study type
PRO-OSTEO Project (improving osteoporosis management in the acute hospital setting): a pilot single-centre study	Banakh, I.	2011	Archives of Osteoporosis	6		157-65	10.1007/s11657-011-0061-0	Study type
Osteoporosis is underdiagnosed in skilled nursing facilities: a large-scale heel BMD screening study	Gloth, F. M., 3rd; Simonson, W.	2008	Journal of the American Medical Directors Association	9	3	190-3	10.1016/j.jamda.2007.12.003	Study type
Clinical pharmacists boost success of osteoporosis outreach effort	Olegario, Robert; Park, Julie; Kjell, Janice	2008	Drug Benefit Trends	20	10	391-400		Study type
Medication review with a focus on fracture prophylaxis among patients suffering collum femoris fractures	Munk, Christina Lyster; Bendixen, Henriette Kunoy; Kjeldsen, Lene Juel	2011	European journal of Hospital Pharmacy Practice	17	2	26-30		Study type
Improving drug adherence in osteoporosis: an update on more recent studies	Jaleel, Ayesha; Saag, Kenneth G.; Danila, Maria I.	2018	Therapeutic Advances in Musculoskeletal Disease	10	7	141-149	10.1177/1759720X18785539	Study type
Randomized controlled trials covering pharmaceutical care and medicines management: A systematic review of literature	Babar, Z. U.; Kousar, R.; Murtaza, G.; Azhar, S.; Khan, S. A.; Curley, L.	2018	Research in social & administrative pharmacy	14	6	521-539	10.1016/j.sapharm.2017.06.008	Study type
Analytical quality and effectiveness of point-of-care testing in community pharmacies: A systematic literature review	Buss, Vera H.; Deeks, Louise S.; Shield, Alison; Kosari, Sam; Naunton, Mark	2019	Research in social & administrative pharmacy	15	5	483-495	10.1016/j.sapharm.2018.07.013	Study type
Analysis of quality improvement efforts in preventing glucocorticoid-induced osteoporosis	Tory, H. O.; Solomon, D. H.; Desai, S. P.	2015	Seminars in Arthritis and Rheumatism	44	5	483-488	10.1016/j.semarthrit.2014.09.011	Study type
Prevention and management of osteoporotic fractures by non-physician health professionals: a systematic literature review to inform EULAR points to consider	Wilson, N.; Hurkmans, E.; Adams, J.; Bakkens, M.; Balazova, P.; Baxter, M.; Blavnsfeldt, A. B.; Briot, K.; Chiari, C.; Cooper, C.; Dragoi, R.; Gabler, G.; Lems, W.; Mosor, E.; Pais, S.; Simon, C.; Studenic, P.; Tilley, S.; de la Torre, J.; Stamm, T. A.	2020	RMD Open	6		e001143	10.1136/rmdopen-2019-001143	Study type
Prevention of falls in the elderly: a review	Karlsson, Magnus K.; Vonschewelov, Thord; Karlsson, Caroline; Coster, Maria; Rosengen, Bjorn E.	2013	Scandinavian journal of public health	41	5	442-454	10.1177/1403494813483215	Study type

The impact of pharmacist interventions on osteoporosis management: A systematic review	Elias, M. N.; Burden, A. M.; Cadarette, S. M.	2011	Osteoporosis International		22	10	2587-2596	10.1007/s00198-011-1661-7	Study type
Effectiveness of interventions to improve the detection and treatment of osteoporosis in primary care settings: a systematic review and meta-analysis	Laliberte, M. C.; Perreault, S.; Jouini, G.; Shea, B. J.; Lalonde, L.	2011	Osteoporosis International		22	11	2743-68	10.1007/s00198-011-1557-6	Study type
Review of services provided by pharmacies that promote healthy living	Brown, D.; Portlock, J.; Rutter, P.; Brown, David; Portlock, Jane; Rutter, Paul	2012	International Journal of Clinical Pharmacy		34	3	399-409	10.1007/s11096-012-9634-2	Study type
Collaborative physician/pharmacist osteoporosis clinic model	Scott, M. A.; Ray, L. L.	2009	ASHP Midyear Clinical Meeting				234		Non-full text original research
Outpatient Infusion Center Monitoring Guidelines for Intravenous Bisphosphonates A Community Hospitals Experience	Shepherd, A.	2012	ASHP Summer Meeting				49-T		Non-full text original research
Prevention and Management of Osteoporosis	Elliott, M. E.	2010	The Journal of the Pharmacy Society of Wisconsin	March/ April			29-40		Non-full text original research
Impact of community osteoporosis screening by pharmacists on diagnostic testing and prescribing by primary care physicians	Faulkner, M. A.; Ryan-Haddad, A. M.; Coover, K.; Burns, T.; Lenz, T. L.	2005	ASHP Midyear Clinical Meeting		40		P552R		Non-full text original research
Bone mineral density testing: community pharmacists' role in education and osteoporosis risk assessment	Tran, M. T.	1999	ASHP Midyear Clinical Meeting		34	Dec	P-250R		Non-full text original research
Impact of a university based pharmacist coordinated wellness center on the healthy people 2010 objectives	Lassila, H. C.; O'Neil, C. K.; Berdine, H. J.; Livengood, B.; Skomo, M.	2008	American Association of Colleges of Pharmacy Annual Meeting		72	3	NIL_0105-NIL_0106		Non-full text original research
Measuring the potential contribution of community pharmacists in identifying, understanding and meeting the bone health needs of patients in collaboration with General Practitioners	Hollingshead, C.; Rajaei-Dehkordi, Z.; Gray, M.; Wysocki, R.; Ewan, M.	2002	ASHP Midyear Clinical Meeting		37	Dec	ASC-4		Non-full text original research
Evidence based assessment of pharmaceutical interventions for the treatment and prevention of osteoporosis (CPS-O-009)	Bell, J. S.; Chen, T. F.; McLachlan, A. J.	2002	International Pharmaceutical Federation World Congress		62		77		Non-full text original research
Evaluation of the use of calcium for the prevention or treatment of osteoporosis in postmenopausal women	Sickels, J. M.	2000	ASHP Midyear Clinical Meeting		35	Dec	P-401R		Non-full text original research

Succeeding in dynamic times: Providing pharmacist-conducted disease screening to frontier communities	Stratton, T. P.; Williams, R. G.; Meine, K. L.; Bartels, C. L.	2003	AACP Annual Meeting	104	Jul	NIL_0185		Non-full text original research
Community pharmacy osteoporosis database project with the peripheral instantaneous x-ray imager (PIXI)	Elliott, M. E.; Binkley, N. C.; Meek, P. D.; Kanous, N. L.	1999	American Association of Colleges of Pharmacy Annual Meeting	100	Jul	26		Non-full text original research
Role of the Pharmacist in Medication Therapy Management Services in Patients with Osteoporosis	Murphy-Menezes, Megan	2015	Clinical Therapeutics	37	7	1573-1586	10.1016/j.clinthera.2015.03.023	Non-full text original research
Use of medications affecting fracture risk in long-term care residents with multiple sclerosis	Faulkner, M. A.; Ryan-Haddad, A. M.; Lenz, T. L.; Stading, J. A.	2004	ASHP Midyear Clinical Meeting	39	Dec	P143E		Non-full text original research
Effects of pharmacist intervention on calcium and vitamin D supplementation in the prevention and treatment of osteoporosis	Lenzi, L.; Eldridge, S.; Steinkellner, A.	2011	ASHP Midyear Clinical Meeting	2010		MCS-10		Non-full text original research
A randomized controlled trial of a community pharmacist-initiated screening and intervention program for patients at high risk for osteoporosis - the OsteoPharm study	Yuksel, N.; Majumdar; Biggs, C.; Tsuyuki, R. T.	2008	Canadian Pharmacists Journal	141	6	323		Non-full text original research
Cultivating across "pockets of excellence": challenges to sustaining efforts to improve osteoporosis care	Van Tiem, Jennifer M.; Wardyn, Shylo; Santana, Xiomara; Seaman, Aaron T.; Steffen, Melissa J. A.; Solimeo, Samantha L.; Miller, Karla L.	2021	Osteoporosis International	Epub 2021	Aug 19		10.1007/s00198-021-06098-9	Non-full text original research
Community osteoporosis screening services for the prevention of osteoporotic fractures in population health: a literature review	Nguyen, V. H.	2017	International Journal of Evidence-Based Healthcare	15	2	43-52	10.1097/xeb.0000000000000104	Non-full text original research
The management of osteoporosis following hip fracture: How to improve our care	Fisher, Alexander A.; Davis, Michael W.; Budge, Marc M.	2004	Osteoporosis International	15	7	583-584	10.1007/s00198-004-1645-y	Non-full text original research
The effectiveness and cost-effectiveness of an integrated osteoporosis care programme for postmenopausal women in Flanders: study protocol of a quasi-experimental controlled design	Verdonck, C.; Annemans, L.; Goemaere, S.; Lapauw, B.; Goderis, G.; Balligand, E.; Doom, M. P.; Perkisas, S.; Borgermans, L.	2020	Archives of Osteoporosis	15	1	107	10.1007/s11657-020-00776-7	Non-full text original research
Telephone motivational interviewing ineffective in treatment of osteoporosis	Anonymous	2012	Australian Journal of Pharmacy	93	1107	91		Non-full text original research

Study protocol for a single-centre, prospective, non-blinded, randomised, 12-month, parallel-group superiority study to compare the efficacy of pharmacist intervention versus usual care for elderly patients hospitalised in orthopaedic wards	Komagamine, Junpei; Sugawara, Kenichi; Kaminaga, Miho; Tatsumi, Shinpei	2018	BMJ Open	8	7	e021924	10.1136/bmjopen-2018-021924	Non-full text original research
A multidisciplinary approach to managing osteoporosis	Hale, L. S.; Goehring, M.	2003	Annals of Long-Term Care	11	6	40-47		Non-full text original research
Developing a mobile pharmacist-conducted wellness clinic for rural Montana communities	Williams, Robert G.; Meine, Kari L.; Stratton, Timothy P.	2005	Journal of the American Pharmacists Association	45	3	390-399	10.1331/1544345054003723	Non-full text original research
How pharmacists can make a difference in managing osteoporosis and falls	Kanji, Mohamed	2002	Pharmaceutical Journal	269	7219	534		Non-full text original research
Pharmacist-physician collaboration in an osteoporosis management service	Burkiewicz, J. S.	2009	ASHP Midyear Clinical Meeting			234		Non-full text original research
Implementing a knowledge translation intervention in long-term care: feasibility results from the Vitamin D and Osteoporosis Study (ViDOS)	Kennedy, C. C.; Thabane, L.; Ioannidis, G.; Adachi, J. D.; Papaioannou, A.	2014	Journal of the American Medical Directors Association	15	12	943-5	10.1016/j.jamda.2014.05.007	Not involve pharmacist intervention
Effects of educational materials concerning osteoporosis on women's knowledge, beliefs, and behavior	Blalock, S. J.; Currey, S. S.; DeVellis, R. F.; DeVellis, B. M.; Giorgino, K. B.; Anderson, J. J.; Dooley, M. A.; Gold, D. T.	2000	American Journal of Health Promotion	14	3	161-9	10.4278/0890-1171-14.3.161	Not involve pharmacist intervention
Improvements in osteoporosis testing and care are found following the wide scale implementation of the Ontario Fracture Clinic Screening Program: An interrupted time series analysis	Beaton, D. E.; Mamdani, M.; Zheng, H.; Jaglal, S.; Cadarette, S. M.; Bogoch, E. R.; Sale, J. E. M.; Sujic, R.; Jain, R.	2017	Medicine (Baltimore)	96	48	e9012	10.1097/md.00000000000009012	Not involve pharmacist intervention
Effects of an osteoporosis prevention program incorporating tailored educational materials	Blalock, S. J.; DeVellis, B. M.; Patterson, C. C.; Campbell, M. K.; Orenstein, D. R.; Dooley, M. A.	2002	American Journal of Health Promotion	16	3	146-56	10.4278/0890-1171-16.3.146	Not involve pharmacist intervention
Patient education in groups increases knowledge of osteoporosis and adherence to treatment: A two-year randomized controlled trial	Knold, Berit; Nielsen, Winnie; Nielsen, Dorth; Ryg, Jesper; Nissen, Nis; Brixen, Kim	2010	Patient Education and Counselling	81	2	155-160	10.1016/j.pec.2010.03.010	Not involve pharmacist intervention
Osteoporosis telephonic intervention to improve medication regimen adherence: a large, pragmatic, randomized controlled trial	Solomon, D. H.; Iversen, M. D.; Avorn, J.; Gleeson, T.; Brookhart, M. A.; Patrick, A. R.; Rekedal, L.; Shrank, W. H.; Lii, J.; Losina, E.; Katz, J. N.	2012	Archives of Internal Medicine	172	6	477-83	10.1001/archinternmed.2011.1977	Not involve pharmacist intervention

A systematic review of interventions by healthcare professionals on community-dwelling postmenopausal women with osteoporosis	Lai, P.; Chua, S. S.; Chan, S. P.	2010	Osteoporosis International	21	10	1637-56	10.1007/s00198-010-1199-0	Not involve pharmacist intervention
Osteoporosis Improvement: A Large-Scale Randomized Controlled Trial of Patient and Primary Care Physician Education	Solomon, D.H., Katz, J.N., Finkelstein, J.S., Polinski, J.M., Stedman, M., Brookhart, M.A., Arnold, M., Gauthier, S.Z., Avorn, J.	2007	Journal of Bone and Mineral Research	22	11	1808-1815	1-.1359/JBMR.070717	Not involve pharmacist intervention
Priming primary care physicians to treat osteoporosis after a fragility fracture: an integrated multidisciplinary approach	Roux, S.; Beaulieu, M.; Beaulieu, M. C.; Cabana, F.; Boire, G.	2013	The Journal of Rheumatology	40	5	703-11	10.3899/jrheum.120908	Role of pharmacist not specified
Pharmacists and nurses provide regional care to osteoporosis patient: Fee for infusion care	Bos, Edwin	2016	Pharmaceutisch Weekblad	151	43	22		Non-English