References for the

GERI-RXFILES 3RD EDITION

ASSESSING MEDICATIONS IN OLDER ADULTS

Alternatives to explore, when less may be more

2019

www.RxFiles.ca

GERI-RXFILES TABLE OF CONTENTS – 3RD EDITION

RESPIRATORY

MISCELLANEOUS

INDICES

APPENDICES

References available online at www.RxFiles.ca under the title/search terms: "REFERENCES: Geri-RxFiles – 3rd Ed"

STOPP

O'Mahony D, O'Sullivan D, Byrne S, O'Connor MN, Ryan C, Gallagher P. STOPP/START criteria for potentially inappropriate prescribing in older people: version 2. Age Ageing. 2015 Mar;44(2):213-8. doi: 10.1093/ageing/afu145. Epub 2014 Oct 16. PubMed PMID: 25324330; PubMed Central PMCID: PMC4339726.

Available: http://ageing.oxfordjournals.org/content/44/2/213.long
http://ageing.oxfordjournals.org/content/44/2/213/suppl/DC1

BEERS

By the 2019 American Geriatrics Society Beers Criteria® Update Expert Panel. American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults. J Am Geriatr Soc. 2019 Apr;67(4):674-694. doi: 10.1111/jgs.15767. Epub 2019 Jan 29. PubMed PMID: 30693946.

Available: https://onlinelibrary.wiley.com/doi/full/10.1111/jgs.15767

INTRODUCTION

Drug Therapy in the Older Adult: Considerations for Optimal Prescribing, Prescribing Cascade & Deprescribing

1. Canadian Institute for Health Information. *Adverse Drug Reaction – Related Hospitalizations Among Seniors*, 2006 to 2011. March 2013. https://secure.cihi.ca/free_products/Hospitalizations%20for%20ADR-ENweb.pdf, accessed September 27, 2018.
2. The American Geriatrics Society 2019 Beers Criteria Update Expert Panel. *American Geriatrics Society updated Beers criteria for potentially inappropriate medication use in older adults*. J Am Geriatr Soc 2019;00:1-21
3. O'Mahony D, O'Sullivan D, Byrne S, O'Connor MN, Ryan C, Gallagher P. *STOPP/START criteria for potentially inappropriate prescribing in older people: version 2*. Age Ageing. 2014 Oct 16.
4. Holmes HM. *Rational prescribing for patients with a reduced life expectancy*. Clin Pharmacol Ther. 2009 Jan;85(1):103-7. doi: 10.1038/clpt.2008.211. Epub 2008 Nov 26. Review. PubMed PMID: 19037198.
5. Rochon PA, Gurwitz JH. *Optimising drug treatment for elderly people: the prescribing cascade*. BMJ. 1997 Oct 25;315(7115):1096-9.
6. Kalish LM, et al. Australian Prescriber 2011;34:162-6.
7. Rosenberg J, A Rochon P, S Gill S. *Unveiling a prescribing cascade in an older man*. J Am Geriatr Soc. 2014 Mar;62(3):580-1. doi: 10.1111/jgs.12714. PubMed PMID: 24628637.
8. Gnjidic D, Le Couteur DG, Hilmer SN. *Discontinuing drug treatments*. BMJ. 2014 Nov 21;349:g7013.
9. Budnitz DS, Lovegrove MC, Shehab N, Richards CL. *Emergency hospitalizations for adverse drug events in older Americans*. N Engl J Med. 2011 Nov 24;365(21):2002-12.
10. Bayoumi I, Dolovich L, Hutchison B, Holbrook A. *Medication-related emergency department visits and hospitalizations among older adults*. Can Fam Physician. 2014 Apr;60(4):e217-22.

Additional References:

Frailty Assessment Links: http://geriatricresearch.medicine.dal.ca/pdf/Clinical%20Faily%20Scale.pdf
AGS Geriatric Evaluation and Management Tools: https://geriatricscareonline.org/ProductAbstract/ags-geriatrics-evaluation-management-tools-gems-app/B025/ (Mobile APP = US$9.99/yr)

AGS Geriatric Evaluation and Management Tools:
http://familymed.uthscsa.edu/gerifellowship/redirect/articles/CLC/Geriatrics%20Eval%20Management%20Tool%20for%20Frailty.pdf

INTRODUCTION

Frailty in Older Adults

1. Periyakoil V. *Frailty as a terminal illness*. AFP 2013;88(6):367-368. Available: https://www.aafp.org/afp/2013/0915/p363.pdf
2. Rodriguez-Manas L, Fried LP. *Frailty in the clinical scenario*. The Lancet. Published online: November 6, 2014. (14)61595-6. Available: http://dx.doi.org/10.1016/S0140-6736
3. Periyakoil V. *Frailty as a terminal illness*. AFP 2013;88(6):367-368. Available: https://www.aafp.org/afp/2013/0915/p363.pdf
4. Strandberg TE, Pitkala KH. *Frailty in elderly people*. The Lancet. April 21, 2007. Vol 369: 1328-1329.
5. American Geriatrics Society. *Frailty*. Geriatrics Evaluation and Management Tools. Source: Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine. New York, NY. 2013.
6. Rodriguez-Manas L, Fried LP. *Frailty in the clinical scenario*. The Lancet. Published online: November 6, 2014. (14)61595-6. Available: http://dx.doi.org/10.1016/S0140-6736
7. Rodriguez-Manas L, Fried LP. *Frailty in the clinical scenario*. The Lancet. Published online: November 6, 2014. (14)61595-6. Available: http://dx.doi.org/10.1016/S0140-6736
8. Lee L, Heckman G, Molnar F. Frailty. *Identifying elderly patients at high risk of poor outcomes*. Can Fam Physician 2015;61:227-31. Available: https://www.cfp.ca/content/cfp/61/3/227.full.pdf
9. Lee L, Heckman G, Molnar F. Frailty. *Identifying elderly patients at high risk of poor outcomes*. Can Fam Physician 2015;61:227-31. Available: https://www.cfp.ca/content/cfp/61/3/227.full.pdf
10. Fried LP, Tangen CM, Watson J, et al. *Frailty in Older Adults: Evidence for a phenotype*. J Gerontol Med Sci. 2001; 56A: M146-M156.
11. Rockwood K, Song X, Minitski A. Changes in relative fitness and frailty across the adult lifespan: evidence from the Canadian National Population Health Survey. CMAJ. 2011;183(8): E487-94.
12. Chen X, Genxiang M, Leng SX. *Frailty syndrome: an overview*. Clinical Interventions in Aging. 2014: 9: 433-441.
13. Lee L, Heckman G, Molnar F. Frailty. *Identifying elderly patients at high risk of poor outcomes*. Can Fam Physician 2015;61:227-31. Available: https://www.cfp.ca/content/cfp/61/3/227.full.pdf
14. Abellan van Kan G, Rolland Y, Andrieu S, et al. *Gait speed at usual pace as a predictor of adverse outcomes in community-dwelling older people an International Academy on Nutrition and Aging (IANA) Task Force*. J Nutr Health Aging. 2009 Dec;13(10):881-9. Review. PubMed PMID: 19924348.
15. Studenski S, Perera S, Patel K, et al. *Gait speed and survival in older adults*. JAMA. 2011 Jan 5;305(1):50-8. doi: 10.1001/jama.2010.1923. PubMed PMID: 21205966; PubMed Central PMCID: PMC3080184.
16. Lee L, Heckman G, Molnar F. Frailty. *Identifying elderly patients at high risk of poor outcomes*. Can Fam Physician 2015;61:227-31. Available: https://www.cfp.ca/content/cfp/61/3/227.full.pdf
17. Lee L, Heckman G, Molnar F. Frailty. *Identifying elderly patients at high risk of poor outcomes*. Can Fam Physician 2015;61:227-31. Available: https://www.cfp.ca/content/cfp/61/3/227.full.pdf
18. Lee L, Heckman G, Molnar F. Frailty. *Identifying elderly patients at high risk of poor outcomes*. Can Fam Physician 2015;61:227-31. Available: https://www.cfp.ca/content/cfp/61/3/227.full.pdf
19. Lee L, Heckman G, Molnar F. Frailty. *Identifying elderly patients at high risk of poor outcomes*. Can Fam Physician 2015;61:227-31. Available: https://www.cfp.ca/content/cfp/61/3/227.full.pdf
20. Rodriguez-Manas L, Fried LP. *Frailty in the clinical scenario*. The Lancet. Published online: November 6, 2014. (14)61595-6. Available: http://dx.doi.org/10.1016/S0140-6736

21. Lee L, Heckman G, Molnar F. Frailty. *Identifying elderly patients at high risk of poor outcomes*. Can Fam Physician 2015;61:227-31. Available: https://www.cfp.ca/content/cfp/61/3/227.full.pdf
22. Aguayo G, Donneau A, Vaillant M, et al. *Agreement between 35 published frailty scores in the general population*. Am J Epidemiol. 2017;186(4):420-34.
23. Rockwood K, Mitnitski A. *Frailty defined by deficit accumulation and geriatric medicine defined by frailty*. Clin Geriatr Med 2011; 27: 17-26.
24. Moffatt H, Moorhouse P, Mallery L, et al. Using the Frailty Assessment for Care Planning Tool (FACT) to screen elderly chronic kidney disease patients for frailty: the nurse experience. Clin Interv Aging. 2018;13:843-52.
25. Strandberg TE, Pitkala KH. *Frailty in elderly people*. The Lancet. April 21, 2007. Vol 369: 1328-1329.
26. Chen X, Genxiang M, Leng SX. *Frailty syndrome: an overview*. Clinical Interventions in Aging. 2014: 9: 433-441.
27. American Geriatrics Society. *Frailty*. Geriatrics Evaluation and Management Tools. Source: Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine. New York, NY. 2013.
28. Fried LP. *Frailty*. Chapter 23. Source: Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine. New York, NY. 2013. Accessed online: http://geriatricscareonline.org/FullText/B003/B003_VOL001_PART001_SEC004_CH023/?from=search&param2=search January 21, 2015.
29. Lee L, Heckman G, Molnar F. Frailty. *Identifying elderly patients at high risk of poor outcomes*. Can Fam Physician 2015;61:227-31. Available: https://www.cfp.ca/content/cfp/61/3/227.full.pdf
30. Rodriguez-Manas L, Fried LP. *Frailty in the clinical scenario*. The Lancet. Published online: November 6, 2014. (14)61595-6. Available: http://dx.doi.org/10.1016/S0140-6736
31. De Coninck L, Bekkering GE, Bouckaert L, Declercq A, Graff MJL, Aertgeerts B. Home- and Community-Based Occupational Therapy Improves Functioning in Frail Older People: A Systematic Review. J Am Geriatr Soc. 2017 Aug;65(8):1863-1869. doi: 10.1111/jgs.14889. Epub 2017 Apr 3. Review. PubMed PMID: 28369719.

CARDIOLOGY

Antiplatelets & Anticoagulants: DAPT, Dual & Triple Therapy

CARDIOVASCULAR INDICATIONS

Guidelines

- Mehta SR, Bainey KR, Cantor WJ, et al. **2018 Canadian Cardiovascular Society/Canadian Association of Interventional Cardiology Focused Update of the Guidelines for the Use of Antiplatelet Therapy**. Can J Cardiol. 2018 Mar;34(3):214-233.
- Andrade JG, Verma A, Mitchell LB, et al; **CCS Atrial Fibrillation Guidelines** Committee. 2018 Focused Update of the Canadian Cardiovascular Society Guidelines for the Management of
- *Atrial Fibrillation*. Can J Cardiol. 2018 Nov;34(11):1371-1392.

Trials

- Bonaca MP, Bhatt DL, Cohen M, et al; **PEGASUS-TIMI** 54 Steering Committee and Investigators. Long-term use of ticagrelor in patients with prior myocardial infarction. N Engl J Med. 2015 May 7;372(19):1791-800.
- Cannon CP, Bhatt DL, Oldgren J, et al; **RE-DUAL** PCI Steering Committee and Investigators. Dual Antithrombotic Therapy with Dabigatran after PCI in Atrial Fibrillation. N Engl J Med. 2017 Oct 19;377(16):1513-1524.
- Dewilde WJ, Oirbans T, Verheugt FW, et al; **WOEST** study investigators. Use of clopidogrel with or without aspirin in patients taking oral anticoagulant therapy and undergoing percutaneous coronary intervention: an open-label, randomised, controlled trial. Lancet. 2013 Mar 30; 381(9872):1107-15.
- Eikelboom JW et al. Rivaroxaban with or without aspirin in stable cardiovascular disease. (**COMPASS**) N Engl J Med2017 Aug 27.
- Gibson CM, Mehran R, Bode C, et al. Prevention of Bleeding in Patients with Atrial Fibrillation Undergoing PCI. PIONEER AF-PCI. N Engl J Med. 2016 Dec 22;375(25):2423-2434.
- Mahaffey KW, Wojdyla DM, Carroll K, et al; **PLATO** Investigators. Ticagrelor compared with clopidogrel by **geographic region** in the Platelet Inhibition and Patient Outcomes (PLATO) trial. Circulation. 2011 Aug 2;124(5):544-54.
- Mauri L, Kereiakes DJ, Yeh RW, et al; **DAPT Study Investigators**. Twelve or 30 months of dual antiplatelet therapy after drug-eluting stents. N Engl J Med. 2014 Dec 4; 371(23):2155-66.
- Mehta SR, Yusuf S, Peter RJG, Bertrand ME, et al. Effects of pretreatment with clopidogrel and aspirin followed by long-term therapy in patients undergoing percutaneous coronary intervention: the **PCI-CURE** study. Lancet 2001. 358:527-533.
- Mehta SR, Yusuf S; Clopidogrel in Unstable angina to prevent Recurrent Events (**CURE**) Study Investigators. The Clopidogrel in Unstable angina to prevent Recurrent Events (CURE) trial programme; rationale, design and baseline characteristics including a meta-analysis of the effects of thienopyridines in vascular disease. Eur Heart J. 2000 Dec; 21(24):2033-41.
- Lopes RD, Heizer G, Aronson R, et al; **AUGUSTUS** Investigators. Antithrombotic Therapy after Acute Coronary Syndrome or PCI in Atrial Fibrillation. N Engl J Med. 2019 Apr 18; 380(16):1509-1524.
- Wallentin L, Becker RC, Budaj A, et al; **PLATO** Investigators, Freij A, Thorsén M. Ticagrelor versus clopidogrel in patients with acute coronary syndromes. N Engl J Med. 2009 Sep10;361(11):1045-57.
- Wiviott SD, Braunwald E, McCabe CH, et al; **TRITON-TIMI** 38 Investigators. Prasugrel versus clopidogrel in patients with acute coronary syndromes. N Engl J Med. 2007 Nov 15; 357(20):2001-15.

DAPT POST-PCI META-ANALYSES

- Abo-Salem E, Alsidawi S, Jamali H, et al. *Optimal Duration of Dual Antiplatelet Therapy after Drug-Eluting Stents: Meta-Analysis of Randomized Trials*. Cardiovasc Ther. 2015 Oct;33(5):253-63.
- Basaraba J, Barry A. *Short- versus standard-term dual antiplatelet therapy after percutaneous coronary intervention with drug-eluting stent implantation: a meta-analysis*. Abstract CSHP PPC 2016. CJHP 2016; 69(1).
- Basaraba JE, Barry AR. *Short- versus standard-term dual antiplatelet therapy after percutaneous coronary intervention with drug-eluting stent implantation: A meta-analysis*. J Cardiol. 2016 Aug 30.
- Cassese S, Byrne RA, Ndrepepa G, et al. *Prolonged dual antiplatelet therapy after drug-eluting stenting: meta-analysis of randomized trials*. Clin Res Cardiol. 2015 Oct;104(10):887-901.
- Gargiulo G, Windecker S, da Costa BR, et al. *Short term versus long term dual antiplatelet therapy after implantation of drug eluting stent in patients with or without diabetes: systematic review and meta-analysis of individual participant data from randomised trials*. BMJ 2016;355:i5483.
- Giustino G, Baber U, Sartori S, et al. *Duration of dual antiplatelet therapy after drug-eluting stent implantation: a systematic review and meta-analysis of randomized controlled trials*. J Am Coll Cardiol. 2015 Apr 7;65(13):1298-310.
- Golwala HB, Cannon CP, Steg PG, et al. *Safety and efficacy of **dual vs. triple antithrombotic therapy** in patients with **atrial fibrillation following percutaneous coronary intervention**: a systematic review and meta-analysis of randomized clinical trials*. Eur Heart J. 2018 Apr 13.
- Lou B, Liang X, Wu Y, et al. *Meta-Analysis Comparing **Dual Versus Single** Antiplatelet Therapy in Combination With **Antithrombotic Therapy in Patients With Atrial Fibrillation** Who Underwent **Percutaneous Coronary Intervention** With Stent Implantation*. Am J Cardiol. 2018 Aug 15;122(4):604-611.
- Navarese EP, Andreotti F, Schulze V, et al. *Optimal duration of dual antiplatelet therapy after percutaneous coronary intervention with drug eluting stents: meta-analysis of randomised controlled trials*. BMJ. 2015 Apr 16;350:h1618.
- Palmerini T, Benedetto U, Bacchi-Reggiani L, et al. *Mortality in patients treated with extended duration dual antiplatelet therapy after drug-eluting stent implantation: a pairwise and Bayesian network meta-analysis of randomised trials*. Lancet. 2015 Jun 13;385(9985):2371-82.
- Palmerini T, Della Riva D, Benedetto U, et al. ***Three, six, or twelve months of dual antiplatelet therapy after DES implantation** in patients with or without acute coronary syndromes: an individual patient data pairwise and network meta-analysis of six randomized trials and 11 473 patients*. Eur Heart J. 2017 Jan 21.
- Sharma A, Lavie CJ, Sharma SK, et al. *Duration of Dual Antiplatelet Therapy After Drug-Eluting Stent Implantation in Patients With and Without Acute Coronary Syndrome: A Systematic Review of Randomized Controlled Trials*. Mayo Clin Proc. 2016 Aug;91(8):1084-93.
- Spencer FA, Prasad M, Vandvik PO, et al. *Longer- Versus Shorter-Duration Dual-Antiplatelet Therapy After Drug-Eluting Stent Placement: A Systematic Review and Meta-analysis*. Ann Intern Med. 2015 Jul 21;163(2):118-26.
- Tsoi MF, Cheung CL, Cheung TT, et al. *Duration of dual antiplatelet therapy after drug-eluting stent implantation: Meta-analysis of large randomised controlled trials*. Sci Rep. 2015 Aug 17;5:13204.
- Valgimigli M, Gargiulo G. *Deciding on the **Duration of Dual Antiplatelet Therapy**-When the Choice Between 2 Evils Is Still Evil*. JAMA Cardiol. 2017 Mar 15.
- Verdoia M, Schaffer A, Barbieri L, et al. *Optimal Duration of Dual Antiplatelet Therapy After DES Implantation: A Meta-Analysis of 11 Randomized Trials*. Angiology. 2015 Jun 11.
- Wells GA, Elliott J, Kelly S, et al. ***Dual antiplatelet therapy following percutaneous coronary intervention**: a review of the clinical impact of treatment duration*. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health; 2017 Aug.

- Lee SY, Hong MK, Palmerini T, et al. ***Short-Term Versus Long-Term Dual Antiplatelet Therapy After Drug-Eluting Stent Implantation in Elderly*** *Patients: A Meta-Analysis of Individual Participant Data From 6 Randomized Trials*. JACC Cardiovasc Interv. 2018 Feb 8.

CEREBROVASCULAR INDICATIONS

GUIDELINES

- Wein T, Lindsay MP, Côté R, Foley N, Berlingieri J, Bhogal S, et al; *Heart and Stroke Foundation* ***Canadian Stroke Best Practice Committees****. Canadian stroke best practice recommendations (****CSBPR****): Secondary prevention of stroke, sixth edition practice guidelines, update 2017*. Int J Stroke. 2018 Jun;13(4):420-443.
- Bell AD, Roussin A, Cartier R, Chan WS, Douketis JD, Gupta A, Kraw ME, Lindsay TF, Love MP, Pannu N, Rabasa-Lhoret R, Shuaib A, Teal P, Théroux P, Turpie AG,Welsh RC, Tanguay JF; ***Canadian Cardiovascular Society****. The use of antiplatelet therapy in the outpatient setting: Canadian Cardiovascular Society Guidelines*. Can J Cardiol. 2011 May-Jun;27 Suppl A:S1-59
- Coutts SB, Wein TH, Lindsay MP, et al; *Heart, and Stroke Foundation Canada Canadian Stroke Best Practices Advisory Committee.* ***Canadian Stroke Best Practice Recommendations****: (****CSBPR****) secondary prevention of stroke guidelines, update 2014*. Int J Stroke. 2015 Apr;10(3):282-91.
- Guyatt GH, Akl EA, Crowther M, Gutterman DD, Schuünemann HJ; American College of Chest Physicians Antithrombotic Therapy and Prevention of Thrombosis Panel. *Executive summary: Antithrombotic Therapy and Prevention of Thrombosis, 9th ed:* ***American College of Chest Physicians Evidence-Based Clinical Practice Guidelines***. Chest. 2012 Feb;141(2 Suppl):7S-47S.
- Kernan WN, Ovbiagele B, Black HR, et al; American Heart Association Stroke Council, Council on Cardiovascular and Stroke Nursing, Council on Clinical Cardiology, and Council on Peripheral Vascular Disease. *Guidelines for the prevention of stroke in patients with stroke and transient ischemic attack: a guideline for healthcare professionals from the* ***American Heart Association/American Stroke Association***. Stroke. 2014 Jul;45(7):2160-236.
- Skanes AC, Healey JS, Cairns JA, Dorian P, Gillis AM, McMurtry MS, Mitchell, LB, Verma A, Nattel S; Canadian Cardiovascular Society Atrial Fibrillation Guidelines Committee. *Focused 2012 update of the* ***Canadian Cardiovascular Society Atrial fibrillation*** *guidelines: recommendations for stroke prevention and rate/rhythm control*. Can J Cardiol. 2012 Mar-Apr;28(2):125-36.

TRIALS

- ACTIVE Investigators, Connolly SJ, Pogue J, Hart RG, Hohnloser SH, Pfeffer M, Chrolavicius S, Yusuf S. *Effect of clopidogrel added to aspirin in patients with atrial fibrillation* ***(ACTIVE A)***. N Engl J Med. 2009 May 14;360(20):2066-78.
- ACTIVE Writing Group of the ACTIVE Investigators, Connolly S, Pogue J, Hart R, Pfeffer M, Hohnloser S, Chrolavicius S, Pfeffer M, Hohnloser S, Yusuf S. *Clopidogrel plus aspirin versus oral anticoagulation for atrial fibrillation in the Atrial fibrillation Clopidogrel Trial with Irbesartan for prevention of Vascular Events* ***(ACTIVE W)****: a randomised controlled trial*. Lancet. 2006 Jun 10;367(9526):1903-12.
- Bhatt DL, Fox KA, Hacke W, et al; **CHARISMA** Investigators. *Clopidogrel and aspirin versus aspirin alone for the prevention of atherothrombotic events*. N Engl J Med. 2006 Apr 20;354(16):1706-17.
- Chimowitz MI, Lynn MJ, Derdeyn CP, et al; **SAMMPRIS** Trial Investigators. *Stenting versus aggressive medical therapy for intracranial arterial stenosis*. N Engl J Med. 2011 Sep 15;365(11):993-1003.
- Chiu D, Klucznik RP, Turan TN, et al. *Enrollment volume effect on risk factor control and outcomes in the* ***SAMMPRIS*** *trial*. Neurology. 2015 Dec 15;85(24):2090-7.

- Derdeyn CP, Chimowitz MI, Lynn MJ, et al; Stenting and Aggressive Medical Management for Preventing Recurrent Stroke in Intracranial Stenosis Trial Investigators. *Aggressive medical treatment with or without stenting in high-risk patients with intracranial artery stenosis **(SAMMPRIS): the final results of a randomised trial***. Lancet. 2014 Jan 25;383(9914):333-41.
- Diener HC, Bogousslavsky J, Brass LM, et al; **MATCH** investigators. *Aspirin and clopidogrel compared with clopidogrel alone after recent ischaemic stroke or transient ischaemic attack in high-risk patients (MATCH): randomised, double-blind, placebo-controlled trial*. Lancet. 2004 Jul 24-30;364(9431):331-7.
- Hahn JY, et al. ***6-month versus 12-month** or longer dual antiplatelet therapy after percutaneous coronary intervention in patients with **acute coronary syndrome (SMART-DATE): a randomised, open-label, non-inferiority trial***. Lancet. 2018 Mar 9.
- Jing J, Meng X, Zhao X, et al. ***Dual Antiplatelet Therapy in Transient Ischemic Attack and Minor Stroke With Different Infarction Patterns**: Subgroup Analysis of **CHANCE** Randomized Clinical Trial*. JAMA Neurol. 2018 Mar 26.
- Johnston SC, Easton JD, Farrant M, Barsan W, Conwit RA, Elm JJ, et al; Clinical Research Collaboration, Neurological Emergencies Treatment Trials Network, and the **POINT** Investigators. *Clopidogrel and Aspirin in Acute Ischemic Stroke and High-Risk TIA*. N Engl J Med. 2018 May 16. doi: 10.1056/NEJMoa1800410. [Epub ahead of print] PubMed PMID: 29766750.
- Kennedy J, Hill MD, Ryckborst KJ, et al; **FASTER** Investigators. *Fast assessment of stroke and transient ischaemic attack to prevent early recurrence (FASTER): a randomised controlled pilot trial*. Lancet Neurol. 2007 Nov;6(11):961-9.
- Kim JT, Park MS, Choi KH, et al. *Different Antiplatelet Strategies in Patients With New Ischemic Stroke While Taking Aspirin*. Stroke. 2016 Jan;47(1):128-34.
- **SPS3** Investigators, Benavente OR, Hart RG, McClure LA, et al. *Effects of clopidogrel added to aspirin in patients with recent lacunar stroke*. N Engl J Med. 2012 Aug 30;367(9):817-25.
- Wang Y, Wang Y, Zhao X, et al; **CHANCE** Investigators. *Clopidogrel with aspirin in acute minor stroke or transient ischemic attack*. N Engl J Med. 2013 Jul 4;369(1):11-9.
- Wang Y, Pan Y, Zhao X, et al; **CHANCE** Investigators. *Clopidogrel With Aspirin in Acute Minor Stroke or Transient Ischemic Attack **(CHANCE) Trial: One-Year Outcomes***. Circulation. 2015 Jul 7;132(1):40-6.
- Wiviott SD, Braunwald E, McCabe CH, et al; **TRITON-TIMI** 38 Investigators. *Prasugrel versus clopidogrel in patients with acute coronary syndromes*. N Engl J Med. 2007 Nov 15; 357(20):2001-15.

CARDIOLOGY

Atrial Fibrillation: Antithrombotics for Stroke Prevention in Older Adults

- O'Mahony D, O'Sullivan D, Byrne S, O'Connor MN, Ryan C, Gallagher P. ***STOPP****/START criteria for potentially inappropriate prescribing in older people: version 2*. Age Ageing. 2014 Oct 16.
- **2019** American Geriatrics Society **Beers Criteria®** Update Expert Panel. *American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults*. J Am Geriatr Soc. 2019 Jan 29. [Epub ahead of print]
- The American Geriatrics Society 2012 **Beers Criteria** Update Expert Panel. *American Geriatrics Society updated Beers criteria for potentially inappropriate medication use in older adults*. J Am Geriatr Soc2012;60:616-31.
- PL Detail-Document, *Potentially Harmful Drugs in the Elderly: Beers List*. Pharmacist's Letter/Prescriber's Letter. June 2012.
- PL Detail-Document, *STARTing and STOPPing Medications in the Elderly*. Pharmacist's Letter/Prescriber's Letter. September 2011.
- Andrade JG, Verma A, Mitchell LB, et al; **CCS Atrial Fibrillation Guidelines** Committee. ***2018*** *Focused Update of the Canadian Cardiovascular Society Guidelines for the Management of Atrial Fibrillation*. Can J Cardiol. 2018 Nov;34(11):1371-1392.
- Verma A, Cairns JA, Mitchell LB, et al. **CCS Atrial Fibrillation Guidelines Committee**. *2014 focused update of the Canadian cardiovascular society (CCS) guidelines for the management of atrial fibrillation*. Can J Cardiol. 2014 Oct;30(10):1114-30.
- You JJ, Singer DE, et al. *Antithrombotic therapy for atrial fibrillation: antithrombotic therapy and prevention of thrombosis, 9th ed:* ***American College of Chest Physicians*** *(ACCP-AT9) evidence -based clinical practice guidelines*. Chest. 2012;141(2)(suppl):e531S-575S.
- Camm AJ, Lip GY, De Caterina R, et al. *2012 focused update of the* ***ESC Guidelines*** *for the management of atrial fibrillation: An update of the 2010 ESC Guidelines for the management of atrial fibrillation* *Developed with the special contribution of the European Heart Rhythm Association. Europace. 2012 Aug 24. ESC Updated 2012 Management of Atrial Fibrillation Guidelines.
- Camm AJ, Kirchhof P, Lip GY, et al; **European Heart Rhythm Association; European Association for Cario-Thoracic Surgery**. *Guidelines for the management of atrial fibrillation: the Task Force for the Management of Atrial Fibrillation of the European Society of Cardiology (ESC)*. Eur Heart J. 2010;31:2369-429.
- De Caterina R, Husted S, Wallentin L, et al. *New oral anticoagulants in atrial fibrillation and acute coronary syndromes*. **ESC Working Group** on Thrombosis—Task Force on Anticoagulants in Heart Disease position paper. J Am Coll Cardiol 2012;59:1413-25.
- Jin M, Kosar L. *Atrial fibrillation*. RxFiles 9th ed. Saskatoon, SK: RxFiles; 2012.
- Kosar L, Jin M, Kamrul R, Schuster B. *Oral anticoagulation in atrial fibrillation. Balancing the risk of stroke with the risk of bleed*. Can FamPhysician 2012;58:850-8.
- **ACTIVE A** Investigators, Connolly SJ, Pogue J, Hart RG, et al. *Effect of clopidogrel added to aspirin in patients with atrial fibrillation*. N Engl J Med. 2009 May 14;360(20):2066-78.
- Dumont Z, Kosar L. *Warfarin tips & dosing nomograms*. Saskatoon, SK: RxFiles; 2013.
- Gillis AM, Verma A, Talajic M, Nattel S, et al. and the **CCS Atrial Fibrillation Guidelines** Committee. *Society Guidelines Canadian Cardiovascular Society Atrial Fibrillation Guidelines 2010: Rate and Rhythm Management*. Can J Cardio 2011;27:47-59.
- Frankel G, Kamrul R, Kosar L, Jensen B. *Rate versus rhythm control in atrial fibrillation*. Can Fam Physician 2013;59:161-8.
- Whitbeck MG, Charnigo RJ, Khairy P et al. *Increased mortality among patients taking digoxin - analysis from the* ***AFFIRM*** *study*. Eur Heart J. 2013 May;34(20):1481-8.
- Weiss, B. *Diagnostic Evaluation of Urinary Incontinence in Geriatric Patients*. Am Fam Physician. 1998 Jun 1;57(11):2675-2684.

- Giardian EG. *Therapeutic use & major side effects of sotalol*. UpToDate®. Accessed: http://www.uptodate.com/contents/therapeutic-use-and-major-side-effects-of-sotalol?source=search_result&search=sotalol+elderly+female&selectedTitle=1~150#H21

Additional References:

- Sardar P, Chatterjee S, Chaudhari S, et al. ***New oral anticoagulants*** *in* ***elderly*** *adults: evidence from a meta-analysis of randomized trials*. J Am Geriatr Soc. 2014 May;62(5):857-64.
- Banerjee S, Picheca L. *CHAD65 and CHA2DS2-VASc risk stratification tools for patients with atrial fibrillation: a review of clinical effectiveness and guidelines*. Ottawa: CADTH; 2017, May.
- Macle L, Cairns J, Andrade J, et al; CCS Atrial Fibrillation Guidelines Committee. *The 2014 Atrial Fibrillation Guidelines Companion: A Practical Approach to the Use of the Canadian Cardiovascular Society Guidelines*. Can J Cardiol. 2015 Oct; 31(10):1207-18.
- Verma A, Cairns JA, Mitchell LB, et al; CCS Atrial Fibrillation Guidelines Committee. *2014 focused update of the Canadian Cardiovascular Society Guidelines for the management of atrial fibrillation*. Can J Cardiol. 2014 Oct;30(10):1114-30.
- Macle L, Cairns J, Leblanc K, et al; CCS Atrial Fibrillation Guidelines Committee. *2016 Focused Update of the Canadian Cardiovascular Society Guidelines for the Management of Atrial Fibrillation*. Can J Cardiol. 2016 Oct;32(10):1170-1185.
- Giugliano RP, Ruff CT, Braunwald E, et al; **ENGAGE AF-TIMI** 48 Investigators. *Edoxaban versus warfarin in patients with atrial fibrillation*. N Engl J Med. 2013 Nov 28;369(22):2093-104.
- January CT, Wann LS, Calkins H, Chen LY, Cigarroa JE, Cleveland JC Jr, Ellinor PT, Ezekowitz MD, Field ME, Furie KL, Heidenreich PA, Murray KT, Shea JB, Tracy CM, Yancy CW. *2019 AHA/ACC/HRS focused update of the 2014 AHA/ACC/HRS guideline for the management of patients with atrial fibrillation: a report of the American College of Cardiology Foundation/ American Heart Association Task Force on Clinical Practice Guidelines and the Heart Rhythm Society*. J Am Coll Cardiol. 2019 Jan 21. pii:S0735-1097(19)30209-8. doi: 10.1016/j.jacc.2019.01.011. [Epub ahead of print] PubMed PMID: 30703431.

CARDIOLOGY

Atrial Fibrillation: Rate versus Rhythm Control in Older Adults

- O'Mahony D, O'Sullivan D, Byrne S, O'Connor MN, Ryan C, Gallagher P. ***STOPP****/START criteria for potentially inappropriate prescribing in older people: version 2*. Age Ageing. 2014 Oct 16.
- **2019** American Geriatrics Society **Beers Criteria®** Update Expert Panel. *American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults*. J Am Geriatr Soc. 2019 Jan 29. [Epub ahead of print]
- The American Geriatrics Society **2012 Beers Criteria** Update Expert Panel. *American Geriatrics Society updated Beers criteria for potentially inappropriate medication use in older adults*. J Am Geriatr Soc2012;60:616-31.
- PL Detail-Document, *Potentially Harmful Drugs in the Elderly: Beers List*. Pharmacist's Letter/Prescriber's Letter. June 2012.
- PL Detail-Document, *STARTing and STOPPing Medications in the Elderly*. Pharmacist's Letter/Prescriber's Letter. September 2011.
- Andrade JG, Verma A, Mitchell LB, et al; **CCS Atrial Fibrillation Guidelines** Committee. ***2018*** *Focused Update of the Canadian Cardiovascular Society Guidelines for the Management of Atrial Fibrillation*. Can J Cardiol. 2018 Nov;34(11):1371-1392.
- Skanes A, Healey J, Cairns J, et al. *Focused **2012** Update of the **CCS Atrial Fibrillation Guidelines**: Recommendations for Stroke Prevention and Rate/Rhythm Control*. Can J Cardiol 2012; 28:125-136.
- You JJ, Singer DE, et al. *Antithrombotic therapy for atrial fibrillation: antithrombotic therapy and prevention of thrombosis, 9th ed: **American College of Chest Physicians** (ACCP-AT9) evidence-based clinical practice guidelines*. Chest. 2012;141(2)(suppl):e531S-575S.
- Camm AJ, Lip GY, De Caterina R, et al. *2012 focused update of the **ESC Guidelines** for the management of atrial fibrillation: An update of the 2010 ESC Guidelines for the management of atrial fibrillation* *Developed with the special contribution of the European Heart Rhythm Association. Europace. 2012 Aug 24. ESC Updated 2012 Management of Atrial Fibrillation Guidelines.
- Camm AJ, Kirchhof P, Lip GY, et al; **European Heart Rhythm Association; European Association for Cario-Thoracic Surgery**. *Guidelines for the management of atrial fibrillation: the Task Force for the Management of Atrial Fibrillation of the European Society of Cardiology (ESC)*. Eur Heart J. 2010;31:2369-429.
- De Caterina R, Husted S, Wallentin L, et al. *New oral anticoagulants in atrial fibrillation and acute coronary syndromes*. **ESC Working Group** on Thrombosis—Task Force on Anticoagulants in Heart Disease position paper. J Am Coll Cardiol 2012;59:1413-25.
- Jin M, Kosar L. *Atrial fibrillation*. RxFiles 9th ed. Saskatoon, SK: RxFiles; 2012.
- Kosar L, Jin M, Kamrul R, Schuster B. *Oral anticoagulation in atrial fibrillation. Balancing the risk of stroke with the risk of bleed*. Can FamPhysician 2012;58:850-8.
- **ACTIVE A** Investigators, Connolly SJ, Pogue J, Hart RG, et al. *Effect of clopidogrel added to aspirin in patients with atrial fibrillation*. N Engl J Med. 2009 May 14;360(20):2066-78.
- Dumont Z, Kosar L. *Warfarin tips & dosing nomograms*. Saskatoon, SK: RxFiles; 2013.
- Gillis AM, Verma A, Talajic M, Nattel S, et al. and the **CCS Atrial Fibrillation Guidelines** Committee. *Society Guidelines Canadian Cardiovascular Society Atrial Fibrillation Guidelines 2010: Rate and Rhythm Management*. Can J Cardio 2011;27:47-59.
- Frankel G, Kamrul R, Kosar L, Jensen B. *Rate versus rhythm control in atrial fibrillation*. Can Fam Physician 2013;59:161-8.
- Whitbeck MG, Charnigo RJ, Khairy P et al. *Increased mortality among patients taking digoxin - analysis from the **AFFIRM** study*. Eur Heart J. 2013 May;34(20):1481-8.
- Weiss, B. *Diagnostic Evaluation of Urinary Incontinence in Geriatric Patients*. Am Fam Physician. 1998 Jun 1;57(11):2675-2684.

- Giardian EG. *Therapeutic use & major side effects of sotalol*. UpToDate®. Accessed: http://www.uptodate.com/contents/therapeutic-use-and-major-side-effects-of-sotalol?source=search_result&search=sotalol+elderly+female&selectedTitle=1~150#H21

CARDIOLOGY

Dyslipidemia in Older Adults

1. Anderson T, Gregoire J, Pearson G, Barry A, Couture P, Dawes M, et al. *2016 Canadian Cardiovascular Society/Canadian guidelines for the diagnosis and treatment of dyslipidemia and prevention of cardiovascular disease in the adult*. Can J Cardiol 2016;32:1263-82.
2. Allan G, Silvius J. *Statins and the elderly: The Who, What and When*. Tools for Practice. 2015, https://www.acfp.ca/wp-content/uploads/tools-for-practice/1420477561_129statinandelderlytfpfinal.pdf, accessed August 1, 2018
3. Mortensen M, Falk E. *Primary Prevention with statins in the elderly*. J Am Coll Cardiol 2018;71(1):85-94
4. Stone NJ, Robinson JG, Lichtenstein AH, Bairey Merz CN, Blum CB, Eckel RH, Goldberg AC, Gordon D, Levy D, Lloyd-Jones DM, McBride P, Schwartz JS, Shero ST, Smith SC Jr, Watson K, Wilson PWF. *2013 ACC/AHA guideline on the treatment of blood cholesterol to reduce atherosclerotic cardiovascular risk in adults: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines*. J Am Coll Cardiol 2014;63:2889–934.
5. Grundy Sm Stone N, Bailey A, et al. *AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APhA/ASPC/NLA/PCNA Guideline on the Management of Blood Cholesterol*. JACC. 2018; DOI: 10.1161/CIR.0000000000000625
6. Alpérovitch A, Kurth T, Bertrand M, Ancelin ML, Helmer C, Debette S, Tzourio C. *Primary prevention with lipid lowering drugs and long-term risk of vascular events in older people: population based cohort study*. BMJ. 2015 May 19;350:h2335. doi: 10.1136/bmj.h2335. PubMed PMID: 25989805; PubMed Central PMCID: PMC4437042.
7. Savarese G, Gotto AM Jr, Paolillo S, D'Amore C, Losco T, Musella F, Scala O, Marciano C, Ruggiero D, Marsico F, De Luca G, Trimarco B, Perrone-Filardi P. *Benefits of statins in elderly subjects without established cardiovascular disease: a meta-analysis*. J Am Coll Cardiol. 2013 Dec 3;62(22):2090-9. doi: 10.1016/j.jacc.2013.07.069. Epub 2013 Aug 28. Erratum in: J Am Coll Cardiol. 2014 Mar 25;63(11):1122. PubMed PMID: 23954343.
8. Yebyo H, Aschmann H, Kaufmann M, et al. *Comparative effectiveness and safety of statins as a class and of specific statins for primary prevention of cardiovascular disease: A systematic review, meta-analysis, and network meta-analysis of randomized trials with 94,283 participants*. Am Heart J. 2019;10;210:18-28.
9. Yebyo H, Aschmann H, Puhan M. *Finding the balance between benefits and harms when using statins for primary prevention of cardiovascular disease: A modeling study*. Ann Intern Med. 2018;Dec 4. doi: 10.7326/M18-1279.
10. Teng M, Lin L, Zhao Y, et al. *Statins for primary prevention of cardiovascular disease in elderly patients: systematic review and meta-analysis*. Drugs Aging. 2015;32(8):649-61.
11. Afilalo J, Duque G, Steele R, Jukema JW, de Craen AJ, Eisenberg MJ. *Statins for secondary prevention in elderly patients: a hierarchical bayesian meta-analysis*. J Am Coll Cardiol. 2008 Jan 1;51(1):37-45. doi: 10.1016/j.jacc.2007.06.063. PubMed PMID: 18174034.
12. Alpérovitch A, Kurth T, Bertrand M, Ancelin ML, Helmer C, Debette S, Tzourio C. *Primary prevention with lipid lowering drugs and long-term risk of vascular events in older people: population based cohort study*. BMJ. 2015 May 19;350:h2335. doi: 10.1136/bmj.h2335. PubMed PMID: 25989805; PubMed Central PMCID: PMC4437042.
13. Savarese G, Gotto AM Jr, Paolillo S, D'Amore C, Losco T, Musella F, Scala O, Marciano C, Ruggiero D, Marsico F, De Luca G, Trimarco B, Perrone-Filardi P. *Benefits of statins in elderly subjects without established cardiovascular disease: a meta-analysis*. J Am Coll Cardiol. 2013 Dec 3;62(22):2090-9. doi: 10.1016/j.jacc.2013.07.069. Epub 2013 Aug 28. Erratum in: J Am Coll Cardiol. 2014 Mar 25;63(11):1122. PubMed PMID: 23954343.

14. Yebyo H, Aschmann H, Kaufmann M, et al. *Comparative effectiveness and safety of statins as a class and of specific statins for primary prevention of cardiovascular disease: A systematic review, meta-analysis, and network meta-analysis of randomized trials with 94,283 participants*. Am Heart J. 2019;10;210:18-28.
15. Yebyo H, Aschmann H, Puhan M. *Finding the balance between benefits and harms when using statins for primary prevention of cardiovascular disease: A modeling study*. Ann Intern Med. 2018;Dec 4. doi: 10.7326/M18-1279.
16. Teng M, Lin L, Zhao Y, et al. *Statins for primary prevention of cardiovascular disease in elderly patients: systematic review and meta-analysis*. Drugs Aging. 2015;32(8):649-61.
17. Afilalo J, Duque G, Steele R, Jukema JW, de Craen AJ, Eisenberg MJ. *Statins for secondary prevention in elderly patients: a hierarchical bayesian meta-analysis*. J Am Coll Cardiol. 2008 Jan 1;51(1):37-45. doi: 10.1016/j.jacc.2007.06.063. PubMed PMID: 18174034.
18. Toward Optimized Practice. *Prevention and Management of Cardiovascualr Disease Risk in Primary Care: Clinical Practice Guideline*. Feb 2015. Available: http://www.topalbertadoctors.org/download/1655/Lipid%20Pathway%20CPG.pdf?_20150420112114
19. Waters DD, Guyton JR, Herrington DM, McGowan MP, Wenger NK, Shear C; TNT Steering Committee Members and Investigators. *Treating to New Targets (**TNT**) Study: does lowering low-density lipoprotein cholesterol levels below currently recommended guidelines yield incremental clinical benefit?* Am J Cardiol. 2004 Jan 15;93(2):154-8. PubMed PMID: 14715339.
20. Allan M, Lindbald A, Comeau A, et al. *Simplified lipid guidelines. Prevention and management of cardiovascular disease in primary care*. Can Fam Physician. 2015;61:857-67.
21. PL Detail-Document, *Do Benefits of Statins Outweigh Risks in the Elderly?* Pharmacist's Letter/Prescriber's Letter. February 2012.
22. Jacobs JM, Cohen A, Ein-Mor E, Stessman J. *Cholesterol, statins, and longevity from age 70 to 90 years*. J Am Med Dir Assoc. 2013 Dec;14(12):883-8.
23. Newson RS, Felix JF, Heeringa J, Hofman A, Witteman JC, Tiemeier H. *Association between serum cholesterol and noncardiovascular mortality in older age*. J Am Geriatr Soc. 2011 Oct;59(10):1779-85. doi: 10.1111/j.1532-5415.2011.03593.x. Epub 2011 Sep 21. PubMed PMID: 22091490.
24. Law MR, Wald NJ, Rudnicka AR. *Quantifying effect of statins on low density lipoprotein cholesterol, ischaemic heart disease, and stroke: systematic review and meta-analysis*. BMJ 2003;326:1423.
25. Anderson TJ, Grégoire J, Hegele RA, et al. *2012 update of the Canadian Cardiovascular Society (**CCS**) guidelines for the diagnosisand treatment of dyslipidemia for the prevention of cardiovascular disease in the adult*. Can J Cardiol. 2013 Feb;29(2):151-67.
26. Kutner JS, Blatchford PJ, Taylor DH Jr, Ritchie CS, Bull JH, Fairclough DL, Hanson LC, LeBlanc TW, Samsa GP, Wolf S, Aziz NM, Currow DC, Ferrell B, Wagner-Johnston N, Zafar SY, Cleary JF, Dev S, Goode PS, Kamal AH, Kassner C, Kvale EA, McCallum JG, Ogunseitan AB, Pantilat SZ, Portenoy RK, Prince-Paul M, Sloan JA, Swetz KM, Von Gunten CF, Abernethy AP. *Safety and benefit of discontinuing statin therapy in the setting of advanced, life-limiting illness: a randomized clinical trial*. JAMA Intern Med. 2015 May 1;175(5):691-700. doi: 10.1001/jamainternmed.2015.0289. PubMed PMID: 25798575.
27. Allan G, Silvius J. *Statins and the elderly: The Who, What and When*. Tools for Practice. 2015, https://www.acfp.ca/wp-content/uploads/tools-for-practice/1420477561_129statinandelderlytfpfinal.pdf**,** accessed August 1, 2018
28. Newson RS, Felix JF, Heeringa J, Hofman A, Witteman JC, Tiemeier H. *Association between serum cholesterol and noncardiovascular mortality in older age*. J Am Geriatr Soc. 2011 Oct;59(10):1779-85. doi: 10.1111/j.1532-5415.2011.03593.x. Epub 2011 Sep 21. PubMed PMID: 22091490.
29. Sewright KA, Clarkson PM, Thompson PD. *Statin myopathy: incidence, risk factors, and pathophysiology*. Curr Atheroscler Rep. 2007 Nov;9(5):389-96. PubMed PMID: 18001622.
30. Golomb BA, Evans MA, Dimsdale JE, White HL. *Effects of statins on energy and fatigue with exertion: results from a randomized controlled trial*. Arch Intern Med. 2012 Aug 13;172(15):1180-2. doi: 10.1001/archinternmed.2012.2171. PubMed PMID: 22688574; PubMed Central PMCID: PMC4285455.

31. Lee DS, Markwardt S, Goeres L, Lee CG, Eckstrom E, Williams C, Fu R, Orwoll E, Cawthon PM, Stefanick ML, Mackey D, Bauer DC, Nielson CM. *Statins and physical activity in older men: the osteoporotic fractures in men study*. JAMA Intern Med. 2014 Aug;174(8):1263-70. doi: 10.1001/jamainternmed.2014.2266. PubMed PMID: 24911216; PubMed Central PMCID: PMC4346343.
32. Roberts CG, Guallar E, Rodriguez A. *Efficacy and safety of statin monotherapy in older adults: a meta-analysis*. J Gerontol A Biol Sci Med Sci. 2007 Aug;62(8):879-87. Review. PubMed PMID: 17702880.
33. Roberts C, Guallar E, Rodriguez A. *Efficacy and safety of statin monotherapy in older adults: a meta-analysis*. J Gerontol A Biol Sci Med Sci. 2007;62:879-87
34. Bonovas S, Sitaras N. *Does pravastatin promote cancer in elderly patients? A meta-analysis*. CMAJ 2007;176(5):649-54.
35. Redberg RF. *Statins and weight gain*. JAMA Intern Med. 2014 Jul;174(7):1046. doi: 10.1001/jamainternmed.2014.1994. PubMed PMID: 24763439.
36. Pasternak RC, Smith SC Jr, Bairey-Merz CN, Grundy SM, Cleeman JI, Lenfant C. *ACC/AHA/NHLBI clinical advisory on the use and safety of statins*. Circulation 2002;106:1024-8.
37. McGuinness B, Craig D, Bullock R, Passmore P. *Statins for the prevention of dementia*. Cochrane Database Syst Rev 2009;2:CD003160.
38. Wagstaff LR, Mitton MW, Arvik BM, Doraiswamy PM. *Statin-associated memory loss: analysis of 60 case reports and review of the literature*. Pharmacotherapy 2003;23:871-80.
39. Ott BR, Daiello LA, Dahabreh IJ, Springate BA, Bixby K, Murali M, Trikalinos TA. *Do statins impair cognition? A systematic review and meta-analysis of randomized controlled trials*. J Gen Intern Med. 2015 Mar;30(3):348-58. doi: 10.1007/s11606-014-3115-3. Epub 2015 Jan 10. PubMed PMID: 25575908; PubMed Central PMCID: PMC4351273.
40. Evans MA, Golomb BA. *Statin-associated adverse cognitive effects: survey results from 171 patients*. Pharmacotherapy 2009;29:800-11.
41. King DS, Wilburn AJ, Wofford MR, Harrell TK, Lindley BJ, Jones DW. *Cognitive impairment associated with atorvastatin and simvastatin*. Pharmacotherapy 2003;23:1663-7.
42. Strom BL, Schinnar R, Karlawish J, Hennessy S, Teal V, Bilker WB. *Statin Therapy and Risk of Acute Memory Impairment*. JAMA Intern Med. 2015 Jun 8. doi: 10.1001/jamainternmed.2015.2092. [Epub ahead of print] PubMed PMID: 26054031.
43. Dormuth CR, Hemmelgarn BR, Paterson JM, James MT, Teare GF, Raymond CB, Lafrance JP, Levy A, Garg AX, Ernst P; Canadian Network for Observational Drug Effect Studies. *Use of high potency statins and rates of admission for acute kidney injury: multicenter, retrospective observational analysis of administrative databases*. BMJ. 2013 Mar 18;346:f880.
44. Sattar N, Preiss D, Murray HM, Welsh P, Buckley BM, De Craen AJ, et al. *Statins and risk of incident diabetes: a collaborative meta-analysis of randomised statin trials*. Lancet 2010;375:735-42.
45. Maki K, Diwadkar-Navsariwala V, Kramer M. *Statin use and risk for types 2 diabetes: what clinicians should know*. Postgraduate Medicine;2018;130(2):166-72.
46. PL Detail-Document, *Clinically Significant Statin Drug Interactions*. Pharmacist's Letter/Prescriber's Letter. April 2012.
47. Wiggins B, Saseen J, Page R, et al. *Recommendations for management of clinically significant drug-drug interactions with statins and select agents used in patients with cardiovascular disease. A scientific statement from the American Heart Association*. Circulation. 2016;134:e468-e495.
48. **AIM-HIGH** Investigators, Boden WE, Probstfield JL, et al. *Niacin in patients with low HDL cholesterol levels receiving intensive statin therapy*. N Engl J Med 2011;365:2255-67.
49. **HPS2-THRIVE** Collaborative Group, Landray MJ, Haynes R, et al. *Effects of extended-release niacin with laropiprant in high-risk patients*. N Engl J Med 2014;371:203-12.
50. Sabatine M, Giugliano R, Keech A, Honarpour N, Wiviott S, Murphy S, et al. *Evolocumab and Clinical Outcomes in patients with cardiovascular disease*. N Engl J M. 2017;376:1713-22.

51. ***ODYSSEY*** *Outcomes: Results Suggest Use of PCSK9 Inhibitor Reduces CV Events, LDL-C in ACS Patients*. American College of Cardiology. 2018; March 10. http://www.acc.org/latest-in-cardiology/articles/2018/03/05/15/53/sat-9am-odyssey-outcomes-cv-outcomes-with-alirocumab-after-acs-acc-2018
52. Kerr, R. *Choosing Wisely Newsletter*. Hamilton Family Health Team. July 2018

CARDIOLOGY

Chronic Heart Failure with Reduced Ejection Fraction (≤40%) in Older Adults

- O'Mahony D, O'Sullivan D, Byrne S, O'Connor MN, Ryan C, Gallagher P. ***STOPP****/START criteria for potentially inappropriate prescribing in older people: version 2*. Age Ageing. 2014 Oct 16.
- **2019 American Geriatrics Society Beers Criteria®** Update Expert Panel. *American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults*. J Am Geriatr Soc. 2019 Jan 29. [Epub ahead of print]
- The American Geriatrics Society 2012 **Beers Criteria** Update Expert Panel. *American Geriatrics Society updated Beers criteria for potentially inappropriate medication use in older adults*. J Am Geriatr Soc2012;60:616-31.
- PL Detail-Document, *Potentially Harmful Drugs in the Elderly: Beers List*. Pharmacist's Letter/Prescriber's Letter. June 2012.
- PL Detail-Document, *STARTing and STOPPing Medications in the Elderly*. Pharmacist's Letter/Prescriber's Letter. September 2011.
- Ezekowitz JA, O'Meara E, McDonald MA, Abrams H, Chan M, Ducharme A, et al. *2017 Comprehensive Update of the Canadian Cardiovascular Society Guidelines for the Management of Heart Failure*. Can J Cardiol. 2017 Nov;33(11):1342-1433.
- McMurray JJ, Packer M, Desai AS, et al; **PARADIGM-HF** Investigators and Committees. *Angiotensin-neprilysin inhibition versus enalapril in heart failure*. N Engl J Med. 2014 Sep 11;371(11):993-1004.
- Swedberg K, Komajda M, Böhm M, et al; **SHIFT** Investigators*. Ivabradine and outcomes in chronic heart failure (**SHIFT**): a randomised placebo-controlled study*. Lancet. 2010 Sep 11;376(9744):875-85.
- Yancy CW, Jessup M, Bozkurt B, et al. *2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines*. J Am Coll Cardiol. 2013 Oct 15;62(16):e147-239.
- PL Detail-Document, *Toolbox for Improving Heart Failure Care*. Pharmacist's Letter/Prescriber's Letter. November 2013.
- PL Detail-Document, *Heart Failure Treatment at a Glance*. Pharmacist's Letter/Prescriber's Letter. November 2013.
- Alosa Foundation. *A Guide to Outpatient Management of Congestive Heart Failure*. Nov 2011. Available: http://www.alosafoundation.org/wp-content/uploads/2013/08/CHF_EvDoc.pdf
- Durso SC, Sullivan GM, American Geriatrics Society. *Geriatrics review syllabus a core curriculum in geriatric medicine*. New York: American Geriatrics Society; 2013.
- American Heart Association. *Classes of Heart Failure*. Aug 2011. Available: http://www.heart.org/HEARTORG/Conditions/HeartFailure/AboutHeartFailure/Classes-of-Heart-Failure_UCM_306328_Article.jsp
- Iiti GB, Rabelo ER, Clausell N, Rohde LE, Biolo A, Beck-da-Silva L. *Aggressive fluid and sodium restriction in acute decompensated heart failure: a randomized clinical trial*. JAMA Intern Med. 2013 Jun 24;173(12):1058-64.
- Petrone AB, Gaziano JM, Djoussé L. *Alcohol consumption and risk of death in male physicians with heart failure*. Am J Cardiol. 2014 Oct 1;114(7):1065-8. doi: 10.1016/j.amjcard.2014.07.021. Epub 2014 Jul 18. PubMed PMID: 25129877; PubMed Central PMCID: PMC4163088.
- Independent Drug Information Service. *Helping the failing heart: Safe and effective CHF management*. Available: http://www.alosafoundation.org/wp-content/uploads/2013/08/CHF_UnAd.pdf
- RxFiles *BETA-BLOCKER (BB): Comaprison Chart. RxFiles Drug Comparison Chart*. Accessed 01 Aug 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/CHT-HTN-bb.pdf
- Lanier JB, Mote MB, Clay EC. *Evaluation and management of orthostatic hypotension*. Am Fam Physician. 2011 Sep 1;84(5):527-36.

CARDIOLOGY

Hypertension in Older Adults

1. Nerenberg K, Zarnke K, Leung A, Dasgupta K, Butalia S, McBrien K, et al. *Hypertension Canada's 2018 Guidelines for Diagnosis, Risk Assessment, Prevention, and Treatment of Hypertension in Adults and Children*. Can J Card 2018;34:506-25.
2. Whelton P, Carey R, Aronow W, Casey D, Collins K, Himmelfarb C, et al. *2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults*. JACC 2018;71(19): e127-248.
3. William B, Mancia G, Spiering W, et al. 2018 ESC/ESH Guidelines for the management of arterial hypertension. Eur Heart J. 2018;39(33):3021-3104.
4. Egan, B. *Treatment of hypertension in the elderly patient, particularly isolated systolic hypertension*. Accessed at UpToDate 01 Aug 2013. (Literature review current through: Jun 2013. Topic last updated: Jan 30, 2013
5. Canadian Hypertension Education Program [website]. *Accurate measurement of blood pressure*. Markham, ON: Hypertension Canada; 2011. Available from: www. http://www.hypertension.ca/images/2013_EducationalResources/2013_MeasureBPPoster_EN_HCP1040.pdf. Accessed 18Nov13
6. Regional Geriatric Program of Eastern Ontario. *Postural Hypotension*. http://www.rgpeo.com/2650.aspx, accessed March 4, 2019.
7. Freeman R, Wieling W, Axelrod FB, Benditt DG, Benarroch E, Biaggioni I, et al. *Consensus statement on the definition of orthostatic hypotension, neurally mediated syncope and the postural tachycardia syndrome*. Clin Auton Res 2011;21(2):69-72.
8. Zonneveld T, Richard E, Vergouwen M, Nederkoorn P, de Haan R, Roos Y et al. *Blood pressure-lowering treatment for preventing recurrent stroke, major vascular events, and dementia in patients with a history of stroke or transient ischaemic attack*. Cochrane Database Syst Rev. 2019;19:7:CD007858. doi: 10.1002/14651858.CD007858.pub2.
9. Saiz LC, Gorricho J, Garjón J, Celaya MC, Erviti J, Leache L. *Blood pressure targets for the treatment of people with hypertension and cardiovascular disease*. Cochrane Database of Systematic Reviews 2018, Issue 7. Art. No.: CD010315. DOI: 10.1002/14651858.CD010315.pub3.
10. Chrysant S. *Aggressive systolic blood pressure control in older subjects: benefits and risks*. Postgraduate Med. 2018;130(2):159-65.
11. Denardo SJ, Gong Y, Nichols WW, Messerli FH, Bavry AA, Cooper-Dehoff RM et al. *Blood pressure and outcomes in very old hypertensive coronary artery disease patients: an **INVEST** substudy*. Am J Med 2010; 123: 719 -- 72
12. Banach M, Aronow WS. *Blood pressure j-curve: current concepts*. Curr Hypertens Rep. 2012 Dec;14(6):556-66. doi: 10.1007/s11906-012-0314-3.
13. Bakris GL, Kaplan NM, Forman JP. *Management of severe asymptomatic hypertension (hypertensive urgencies)*. 2012. Available from: www.uptodate.com.
14. Vidal-Petiot E, Ford I, Greenlaw N, et al. *Cardiovascular event rates and mortality according to achieved systolic and diastolic blood pressure in patients with stable coronary artery disease: an international cohort study*. Lancet. 2016;388:2142–2152.
15. RxFiles *ORAL ANTIHYPERTENSIVES Summary/Guidelines Comparison Chart, RxFiles Drug Comparison Chart*. Accessed 08 November 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/cht-HTN-1page%20summary.pdf
16. RxFiles *ACE INHIBITOR (ACEI)/ ANGIOTENSIN II RECEPTOR BLOCKER (ARB): Comparison Chart. RxFiles Drug Comparison Chart*. Accessed 08 November 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/CHT-HTN-ace-arb.pdf
17. RxFiles *BETA-BLOCKER (BB): Comparison Chart. RxFiles Drug Comparison Chart*. Accessed 01 Aug 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/CHT-HTN-bb.pdf
18. RxFiles *CALCIUM CHANNEL BLOCKER (CCB): Comparison Chart. RxFiles Drug Comparison Chart*. Accessed 08 November 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/CHT-HTN-ccb.pdf
19. RxFiles *THIAZIDE Like DIURETICS. RxFiles Drug Comparison Chart*. Accessed 08 November 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/CHT-HTN-diuretics.pdf
20. Wright JM, Musini VM. *First-line drugs for hypertension*. Cochrane Database Syst Rev. 2009 Jul 8;(3):CD001841.

21. *The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (The **JNC 7**)*; JAMA. **2003** May;289(19):2560-72.
22. Roush GC, Holford TR, Guddati AK. *Chlorthalidone compared with hydrochlorothiazide in reducing cardiovascular events: systematic review and network meta-analyses*. Hypertension. 2012 Jun;59(6):1110-7.
23. Dhalla IA, Gomes T, Yao Z, Nagge J, Persaud N, Hellings C, Mamdani MM, Juurlink DN. *Chlorthalidone versus ydrochlorothiazide for the treatment of hypertension in older adults: a population-based cohort study*. Ann Intern Med. 2013 Mar 19;158(6):447-55.
24. *Thiazide Diuretics*. CPhA Monograph, RxTx, accessed online July 21, 2018
25. Weir MR, Rosenberger C, Fink JC. *Pilot study to evaluate a water displacement technique to compare effects of diuretics and ACE inhibitors to alleviate lower extremity edema due to dihydropyridine calcium antagonists*. Am J Hypertens. 2001 Sep;14(9 Pt 1):963-8. PubMed PMID: 11587165.
26. Lindholm LH, Carlberg B, Samuelsson O. *Should beta blockers remain first choice in the treatment of primary hypertension? A meta-analysis*. Lancet 2005;366:1545-53.
27. Cruickshank JM. *Beta blockers for the treatment of primary hypertension*. Lancet 2006;367:209; author reply 210.
28. Schumann S, Hickner J. *When not to use beta-blockers in seniors with hypertension*. J Fam Pract. 2008 Jan;57(1):18-21.
29. Kuyper LM, Khan NA. ***Atenolol vs Nonatenolol*** *β-Blockers for the Treatment of Hypertension: A Meta-analysis*. Can J Cardiol. 2014 May;30(5S):S47-S53.
30. Hackam DG, Quinn RR, Ravani P, et al. Canadian Hypertension Education Program. *The 2013 Canadian Hypertension Education Program (CHEP) Recommendations for Blood Pressure Measurement, Diagnosis, Assessment of Risk, Prevention, and Treatment of Hypertension*. Can J Cardiol. 2013 Mar 28.
31. *BETA-BLOCKER (BB): Comparison Chart. RxFiles Drug Comparison Chart*. Accessed 01 Aug 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/CHT-HTN-bb.pdf
32. Taylor AL, Ziesche S, Yancy C, Carson P, D'Agostino R Jr, Ferdinand K, Taylor M, Adams K, Sabolinski M, Worcel M, Cohn JN; African-American Heart Failure Trial Investigators. *Combination of isosorbide dinitrate (20-40mg tid) and hydralazine (37.5-75mg tid) in blacks with heart failure (**A-HeFT**)*. N Engl J Med. 2004 Nov 11;351(20):2049-57.
33. *Diagnosis and Management of Chronic **Heart Failure** in the Adult: **ACC/AHA 2005 Guideline Update*** for the (J Am Coll Cardiol 2005) http://www.acc.org/clinical/guidelines/failure/index.pdf
(**European 2005** Chronic Heart failure guidelines http://www.escardio.org/NR/rdonlyres/8A2848B4-5DEB-41B9-9A0A-5B5A90494B64/0/CHFFullTextehi205FVFW170505.pdf)
34. PL Detail-Document, *The "Triple Whammy."* Pharmacist's Letter/Prescriber's Letter. April 2013
35. Susantitaphong P, Sewaralthahab K, Balk EM, Eiam-ong S, Madias NE, Jaber BL. *Efficacy and safety of combined vs. single renin-angiotensin-aldosterone system blockade in chronic kidney disease: a meta-analysis*. Am J Hypertens. 2013 Mar;26(3):424-41.
36. Bakris GL, Kaplan NM, Forman JP. *Management of severe asymptomatic hypertension (hypertensive urgencies)*. 2012. Available from: www.uptodate.com.
37. Marik PE, Varon J. *Hypertensive crises: challenges and management*. Chest. 2007 Jun;131(6):1949-62. full-text, correction can be found in Chest 2007 Nov;132(5):1721.
38. Lanier JB, Mote MB, Clay EC. *Evaluation and management of orthostatic hypotension*. Am Fam Physician. 2011 Sep 1;84(5):527-36.
39. Shibao C, Lipsitz LA, Biaggioni I. *ASH position paper: evaluation and treatment of orthostatic hypotension*. J Clin Hypertens (Greenwich). 2013 Mar;15(3):147-53.
40. Lanier JB, Mote MB, Clay EC. *Evaluation and management of orthostatic hypotension*. Am Fam Physician. 2011 Sep 1;84(5):527-36.
41. Masaki KH, Schatz IJ, Burchfiel CM, et al. *Orthostatic hypotension predicts mortality in elderly men: the Honolulu Heart Program*. Circulation. 1998;98:2290 –5.

42. Bird ST, Delaney JA, Brophy JM, Etminan M, Skeldon SC, Hartzema AG. *Tamsulosin treatment for benign prostatic hyperplasia and risk of severe hypotension in men aged 40-85 years in the United States: risk window analyses using between and within patient methodology*. BMJ. 2013 Nov 5;347:f6320. doi: 10.1136/bmj.f6320. PubMed PMID: 24192967; PubMed Central PMCID: PMC3817852.
43. Podoleanu C, Maggi R, Brignole M, et al. *Lower limb and abdominal compression bandages prevent progressive orthostatic hypotension in elderly persons: a randomized single-blind controlled study*. J Am Coll Cardiol. 2006;48(7):1425-1432.
44. Shannon JR, Diedrich A, Biaggioni I, Tank J, Robertson RM, Robertson D, Jordan J. *Water drinking as a treatment for orthostatic syndromes*. Am J Med. 2002 Apr 1;112(5):355-60
45. Jordan J, Shannon JR, Grogan E, et al. *A potent pressor response elicited by drinking water*. Lancet. 1999;353:723.
46. Parsaik A, Singh B, Altayer O, et al. *Midodrine for orthostatic hypotension: a systematic review and meta-analysis of clinical trials*. J Gen Intern Med. 2013. 28(11):1496-503.
47. **ALLHAT** Working Group. *Major outcomes in high-risk hypertensive patients randomized to angiotensin-converting enzyme inhibitor or calcium channel blocker vs diuretic. The Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (**ALLHAT**)*. JAMA. 2002;288:2981-2997.
48. RxFiles *BETA-BLOCKER (BB): Comaprison Chart. RxFiles Drug Comparison Chart*. Accessed 01 Aug 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/CHT-HTN-bb.pdf
49. Carlberg B, Samuelsson O, Lindholm LH. *Atenolol in hypertension: is it a wise choice?* Lancet. 2004 Nov 6;364(9446):1684-9.
50. Weiss, B. *Diagnostic Evaluation of Urinary Incontinence in Geriatric Patients*. Am Fam Physician. 1998 Jun 1;57(11):2675-2684.
51. Gurwitz JH et al. *Thiazide diuretics and the initiation of anti-gout therapy*. Journal of Clinical Epidemiology; 1997 50:953-57.
52. Gurwitz JH, Kalish SC, Bohn RL et al. *Thiazide Diuretics and the Initiation of Anti-Gout Therapy*. Journal of Clinical Epidemiology. 1997 Aug;50(8):953-9
53. RxFiles *TheGout – Q&A & Treatment Options*. RxFiles Drug Comparison Chart. Accessed 01 Aug 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/CHT-Gout.pdf
54. Sterns, R. *Diuretics and calcium balance***.** Accessed at Up-to-Date 01 Aug 2013. (Literature review current through: Jun 2013. Topic last updated: Jul 16, 2012).
55. Mann J, Hilgers K. Use of thiazide diuretics in patients with primary (essential) hypertension. UpToDate, accessed July 29, 2019

Additional References:

- Go AS, Bauman M, Coleman King SM, Fonarow GC, Lawrence W, Williams KA, Sanchez E. *An effective approach to high blood pressure control: a science advisory from the American Heart Association, the American College of Cardiology, and the Centers for Disease Control and Prevention.* Hypertension. 2014;63(12):1230-38. doi: 10.1016/j.jacc.2013.11.007. Epub 2013 Nov 15. PMID 24246165.
- PL Detail-Document, *Potentially Harmful Drugs in the Elderly: Beers List*. Pharmacist's Letter/Prescriber's Letter. June 2012.
- PL Detail-Document, *STARTing and STOPPing Medications in the Elderly*. Pharmacist's Letter/Prescriber's Letter. September 2011.
- Tinetti ME, Han L, Lee DS, McAvay GJ, Peduzzi P, Gross CP, Zhou B, Lin H. *Antihypertensive medications and serious fall injuries in a nationally representative sample of older adults*. JAMA Intern Med. 2014 Apr;174(4):588-95. doi: 10.1001/jamainternmed.2013.14764. PubMed PMID: 24567036.
- Vongpatanasin W. ***Resistant hypertension**: a review of diagnosis and management*. JAMA. 2014 Jun 4;311(21):2216-24

Trial name	Reference & Notes
AASK	Wright JT Jr, Bakris G, Greene T, Agodoa LY, et al. Effect of blood pressure lowering and antihypertensive drug class on progression of hypertensive kidney disease: results from the **AASK trial**.; African American Study of Kidney Disease and Hypertension Study Group. JAMA 2002;288:2421-31.
ACCOMPLISH	Jamerson K, Weber MA, Bakris GL, et al. Benazepril plus Amlodipine or Hydrochlorothiazide for Hypertension in High-Risk Patients. (**ACCOMPLISH**)N Engl J Med. 2008 Dec 4;359(23):2417-2428.
ACCORD-BP	**ACCORD** Study Group, Effects of Intensive Blood-Pressure Control in Type 2 Diabetes Mellitus. N Engl J Med 2010 0: NEJMoa1001286.
A-HeFT	Taylor AL, Ziesche S, Yancy C, Carson P, D'Agostino R Jr, Ferdinand K, Taylor M, Adams K, Sabolinski M, Worcel M, Cohn JN; African-American Heart Failure Trial Investigators. Combination of isosorbide dinitrate (20-40mg tid) and hydralazine (37.5-75mg tid) in blacks with heart failure (**A-HeFT**). N Engl J Med. 2004 Nov 11;351(20):2049-57
ALLHAT	ALLHAT Officers and Coordinators for the **ALLHAT** Collaborative Research Group. Major outcomes in high-risk hypertensive patients randomized to angiotensin-converting enzyme inhibitor or calcium channel block vs. diuretic. JAMA. 2002;288:2981–2997.
ALTITUDE	Parving HH, Brenner BM, McMurray JJ, et al; the **ALTITUDE** Investigators. Cardiorenal End Points in a Trial of **Aliskiren for Type 2 Diabetes**. N Engl J Med. 2012 Nov 3
CATIS	He J, Zhang Y, Xu T, et al. CATIS Investigators. Effects of immediate blood pressure reduction on death and major disability in patients with acute ischemic stroke: the CATIS randomized clinical trial. JAMA. 2014 Feb 5;311(5):479-89. doi: 10.1001/jama.2013.282543. PubMed PMID: 24240777.
CHARM	1: Pfeffer MA, Swedberg K, Granger CB, et al. CHARM Investigators and Committees. Effects of candesartan on mortality and morbidity in patients with chronic heart failure: the **CHARM-Overall** programme. Lancet. 2003 Sep 6;362(9386):759-66. 2: Granger CB, McMurray JJ, Yusuf S, et al. CHARM Investigators and Committees. Effects of candesartan in patients with chronic heart failure and reduced left-ventricular systolic function intolerant to angiotensin-converting-enzyme inhibitors: the **CHARM-Alternative** trial. Lancet. 2003 Sep 6;362(9386):772-6. 3: McMurray JJ, Ostergren J, Swedberg K,et al.; CHARM Investigators and Committees. Effects of candesartan in patients with chronic heart failure and reduced left-ventricular systolic function taking angiotensin-converting-enzyme inhibitors: the **CHARM-Added** trial. Lancet. 2003 Sep 6;362(9386):767-71.
COMET	Cleland JG, et al. COMET Investigators. A comparison of the effects of carvedilol and metoprolol on well-being, morbidity, and mortality (the "patient journey") in patients with heart failure: a report from the Carvedilol Or Metoprolol European Trial (**COMET**). J Am Coll Cardiol. 2006 Apr 18;47(8):1603-11.
HOPE	Yusuf S, Sleight P, Pogue J, Bosch J, et al. The Heart Outcomes Prevention Evaluation (**HOPE**) Study. Effects of an angiotensin-converting-enzyme inhibitor, ramipril, on cardiovascular events in high-risk patients. N Engl J Med 2000;342:145-153. Heart Outcomes Prevention Evaluation Study Investigators. Effects of ramipril on cardiovascular & microvascular outcomes in people with diabetes mellitus: results of the HOPE study and **MICRO-HOPE** substudy. Lancet 2000;355:253-9. Bosch J, Yusuf S, Pogue J, Sleight P et al . Use of ramipril in preventing stroke: double blind randomised trial.; **HOPE** Investigators. Heart outcomes prevention evaluation. BMJ 2002;324:699-702.
HYVET	NS, Peters R, Fletcher AE, Staessen JA, Liu L, et al.; the **HYVET** Study Group. Treatment of Hypertension in Patients 80 Years of Age or Older.N Engl J Med. 2008 Mar 31; [Epub ahead of print]
IDNT	Lewis EJ, Hunsicker LG, Clarke WR, Berl T et al. Renoprotective effect of the angiotensin-receptor antagonist irbesartan in patients with nephropathy due to type 2 diabetes (**IDNT**); Collaborative Study Group. N Engl J Med 2001 Sep 20;345(12):851-60.
INTERACT2	
LIFE	Dahlof B, Devereux RB, Kjeldsen SE, Julius S et al. Cardiovascular morbidity and mortality in the Losartan Intervention For Endpoint reduction in hypertension study (**LIFE**): a randomised trial against atenolol. Lancet 2002;359:995-1003. Lindholm LH, Ibsen H, Dahlof B, Devereux RB et al. Cardiovascular morbidity and mortality in patients with diabetes in the Losartan Intervention For Endpoint reduction in hypertension study (**LIFE**): a randomised trial against atenolol. Lancet 2002;359:1004-10. (Note: in patients with left ventricular hypertrophy). Kjeldsen SE, Dahlof B, Devereux RB, Julius S et al. Effects of losartan on cardiovascular morbidity and mortality in patients with isolated systolic hypertension and left ventricular hypertrophy: a Losartan Intervention for Endpoint Reduction (**LIFE**) substudy. JAMA 2002;288:1491-8.
NORDIL	Hansson L, Hedner T, Lund-Johansen P, Kjeldsen SE et al. Randomised trial of effects of calcium antagonists compared with diuretics and beta-blockers on cardiovascular morbidity and mortality in hypertension: the Nordic Diltiazem (**NORDIL**) study. Lancet 2000;356:359-65.
ONTARGET	Yusuf S, Teo KK, Pogue J, et al for the **ONTARGET** investigators. Telmisartan, ramipril, or both in patients at high risk for vascular events. N Engl J Med 2008: 358:1547-1559
PROGRESS	**PROGRESS** Collaborative Group. Randomised trial of a perindopril-based blood-pressure-lowering regimen among 6,105 individuals with previous stroke or transient ischaemic attack. Lancet 2001;358:1033-41. Arima H, Anderson C, Omae T, et al; for the Perindopril Protection Against Recurrent Stroke Study (PROGRESS) Collaborative Group. Effects of Blood Pressure Lowering on Intracranial and Extracranial Bleeding in Patients on Antithrombotic Therapy: The PROGRESS Trial. Stroke. 2012 Jun;43(6):1675-1677.
RENAAL	Brenner BM, Cooper ME, de Zeeuw D, Keane et al. Effects of losartan on renal and cardiovascular outcomes in patients with type 2 diabetes and nephropathy; **RENAAL** Study Investigators. N Engl J Med 2001;345:861-9.
SHEP	SHEP Cooperative Research Group. Prevention of stroke by antihypertensive drug treatment in older persons with isolated systolic hypertension. Final results of the Systolic Hypertension in the Elderly Program (**SHEP**). JAMA 1991 Jun 26;265(24):3255-64. Curb JD, Pressel SL, Cutler JA, Savage PJ et al. Effect of diuretic-based antihypertensive treatment on cardiovascular disease risk in older diabetic patients with isolated systolic hypertension (**SHEP**). JAMA 1996;276:1886-92. Kostis JB, Wilson AC, et al.; **SHEP** Collaborative Research Group. Long-term effect (14.3 yrs) of diuretic-based therapy on fatal outcomes in subjects with isolated systolic hypertension with and without diabetes. Am J Cardiol. 2005 Jan 1;95(1):29-35. Kostis JB, Cabrera J, Cheng JQ, et al. Association between chlorthalidone treatment of systolic hypertension and long-term survival (SHEP). JAMA. 2011 Dec 21;306(23):2588-93. In the SHEP trial, treatment of isolated systolic hypertension with chlorthalidone stepped-care therapy for 4.5 years was associated with longer life expectancy at 22 years of follow-up.
SPS3	SPS3 Study Group. Blood-pressure targets in patients with recent **lacunar stroke: the SPS3** randomised trial. Lancet 2013; published online May 29. http://dx.doi.org/10.1016/S0140-6736(13)60852-1.
Val-HeFT	Cohn JN, Tognoni G . A randomized trial of the angiotensin-receptor blocker valsartan in chronic heart failure (**Val-HeFT**); Valsartan Heart Failure Trial Investigators. N Engl J Med 2001;345:1667-75. Maggioni AP, Anand I, Gottlieb SO, et al. Effects of valsartan on morbidity and mortality in patients with heart failure not receiving angiotensin-converting enzyme inhibitors. **Val-HeFT** Investigators (Valsartan Heart Failure Trial). J Am Coll Cardiol 2002;40:1414-21. Anand IS, Bishu K, Rector TS, et al. Proteinuria, Chronic Kidney Disease, and the Effect of an Angiotensin Receptor Blocker in Addition to an Angiotensin-Converting Enzyme Inhibitor in Patients With Moderate to Severe Heart Failure. Circulation. 2009 Oct 5.
VA NEPHRON-D	Fried LF, Emanuele N, Zhang JH, et al. **Combined angiotensin inhibition** for the treatment of diabetic nephropathy. (**VA Nephron-D**) N Engl J Med 2013. DOI: 10.1056/NEJMoa1303154.

CARDIOLOGY

QT Prolongation & Torsades de Pointes: Drugs & Sudden Cardiac Death

i. Vandael E, Vandenberk B, Vandenberghe J, et al. *Development of a risk score for QTc-prolongation: the **RISQ-PATH** study*. Int J Clin Pharm. 2017;39:424-432.

- Wolbrette D. *Drugs that cause TdP & increase the risk of sudden cardiac death*. Curr Card Reports 2004; 6: 379-84.
- Wojciech Z & Lin D. *Antipsychotic drugs and QT interval prolongation*. Psychiatr Q 2003; 74(3): 291-306.
- Taylor D. *Antipsychotics and QT prolongation*. Acta Psychiatr Scand 2003;107:85-95.
- Vieweg W. *New generation antipsychotic drugs and QTc interval prolongation*. Prim Care Companion J Clin Psychiatry 2003;5 (5):205-15.
- Roden D. *Drug-induced prolongation of the QT interval*. N Engl J Med 2004; 350: 1013-22.
- Crouch M et al. *Clinical relevance & management of drug-related QT interval prolongation*. Pharmacotherapy 2003; 23(7):881-908.
- Witchel H et al. *Psychotropic drugs, cardiac arrhythmia, & sudden death*. J Clin Psychopharmacol 2003; 23(1):58-77.
- Brown et al. *Cardiovascular effects of anti-psychotics*. Clin Pharmacokinet 2004; 43(1): 38-56 (see Roden NEJM'08)
- Gowda RM, et al. *Torsade de pointes: the clinical considerations*. Int J Cardiol. 2004;96:1
- Sudden Arrhythmia Death Syndromes Foundation. *The long QT syndrome*. SADS Foundation http://www.sads.org/LQTflyer.pdf (Cardiac Arrhythmia Reasearch & Education Foundation www.longqt.org)
- Ray WA, et al. *Oral erythromycin & the risk of sudden death from cardiac causes*. N Engl J Med. 2004 Sep 9;351(11):1089-96.
- Liu BA, Juurlink DN. *Drugs and the QT interval - caveat doctor*. N Engl J Med. 2004 Sep 9;351(11):1053-6.
- Woeffel JA. *Drug-Induced Long QT Interval & Sudden Cardiac Death*. Pharmacist's Letter Nov 2004;20:201111
- Al-Khatib SM, LaPointe NM, Kramer JM, Califf RM. *What clinicians should know about the QT interval*. JAMA. 2003 Apr 23-30;289(16):2120-7. Review. Erratum in: JAMA. 2003 Sep 10;290(10):1318.
- Tachjian A, Maria V, Jahangir A. *Use of herbal products and potential interactions in patients with cardiovascular diseases*. J Am Coll Cardiol. 2010 Feb 9;55(6):515-25.
- Aström-Lilja et al. *Drug-induced torsades de pointes: a review of the Swedish pharmacovigilance database*. Pharmacoepidemiol Drug Saf.2008 Jun;17(6):587-92.

Additional References:

- Abrams DJ, Perkin MA, Skinner JR. *Long QT syndrome*. BMJ. 2010 Jan 8;340:b4815. doi: 10.1136/bmj.b4815.
- Abrams DJ, Macrae CA. *Long QT Syndrome*. Circulation. 2014 Apr 8;129(14):1524-9.
- AHA/ACCF-*Prevention of Torsade de Pointes in Hospital Settings*, Scientific Statement From American Heart Association and the American College of Cardiology Foundation. 2010. http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.109.192704
- Arking DE, Pfeufer A, Post W, et al. *A common genetic variant in the NOS1 regulator NOS1AP modulates cardiac repolarization*. Nat Genet 2006; DOI: 10.1038/ng1790. Available at: http://www.nature.com/ng.
- Barsheshet A, Goldenberg I, O-Uchi J, et al. *Mutations in cytoplasmic loops of the KCNQ1 channel and the risk of life-threatening events: implications for mutation-specific response to Beta-blocker therapy in type 1 long-QT syndrome*. Circulation. 2012;125:1988 –1996.

- Basavarajaiah S, Wilson M, Whyte G, et al. *Prevalence and significance of an isolated long QT interval in elite athletes*. Eur Heart J. 2007 Dec;28(23):2944-9. Epub 2007 Oct 18. The prevalence of prolonged QTc in elite athletes is 0.4%. A QTc of >500ms is highly suggestive of LQTS. A QTc of <500 ms in the absence of symptoms or familial disease is unlikely to represent LQTS in elite athletes.
- Bibian C, Quilez RM, Gil J et al. *Clinical Relevance Of The (S)-Citalopram-Omeprazole Interaction In Geriatric Patients*. Br J Clin Pharmacol. 2013 Aug 7.
- Blaufox AD, Tristani-Firouzi M, Seslar S, et al. *Congenital Long QT 3 in the Pediatric Population*. Am J Cardiol. 2012 Feb 21.
- Boyce MJ, Baisley KJ,Warrington SJ. *Pharmacokinetic Interaction between domperidone and ketoconazole leads to QT prolongation in healthy volunteers: randomized, placebo-controlled, double-blind, crossover study*. Br J Clin Pharmacol 2012;73:411–21.
- Buber J, Mathew J, Moss AJ, et al. *Risk of Recurrent Cardiac Events After Onset of Menopause in Women With Congenital Long-QT Syndrome Types 1 and 2*. Circulation. 2011 Jun 21;123(24):2784-91.
- Calver L, Isbister GK. *High dose droperidol and QT prolongation: analysis of continuous 12-lead recordings*. Br J Clin Pharmacol. 2013 Oct 30.
- Chockalingam P, Crotti L, Girardengo G, et al. *Not all beta-blockers are equal in the management of long QT syndrome types 1 and 2: higher recurrence of events under metoprolol*. J Am Coll Cardiol. 2012;60:2092–2099.
- Chugh SS, Reinier K, Singh T, Uy-Evanado A, Socoteanu C, Peters D, Mariani R, Gunson K, Jui J. *Determinants of Prolonged QT Interval and Their Contribution to Sudden Death Risk in Coronary Artery Disease. The Oregon Sudden Unexpected Death Study*. Circulation. 2009 Jan 26. [Epub ahead of print] Diabetes mellitus and QTc-affecting drugs determined QTc prolongation and were predictors of SCD in coronary artery disease. However, idiopathic abnormal QTc prolongation was associated with 5-fold increased odds of SCD. A continued search for novel determinants of QTc prolongation such as genomic factors is likely to enhance risk stratification for SCD in coronary artery disease.
- Crotti L, Tester DJ, et al. *Long QT syndrome-associated mutations in intrauterine fetal death*. JAMA. 2013 Apr 10;309(14):1473-82.
- Cuneo BF, Strasburger JF, Yu S, Horigome H et al. *In Utero Diagnosis of Long QT Syndrome by Magnetocardiography*. Circulation. 2013 Nov 12;128(20):2183-91.
- Darpö B, Sager P, Macconell L et al. *Exenatide at Therapeutic and Supratherapeutic Concentrations Does Not Prolong the QTc Interval in Healthy Subjects*. Br J Clin Pharmacol. 2012 Aug 10.
- Darpo B, Garnett C. *Early QT assessment - how can our confidence in the data be improved?* Br J Clin Pharmacol. 2012 Dec 24.
- Darpo B, Karnad DR, Badilini F, et al. *Are women more susceptible than men to drug-induced QT prolongation? Concentration-QTc modeling in a Phase 1 study with oral rac-sotalol*. Br J Clin Pharmacol. 2013 Jul 2.
- Davy M, Upward J, Arumugham T, et al. *Cardiac Repolarization With Gabapentin Enacarbil in a Randomized, Double-Blind, Placebo- and Active-Controlled, Crossover Thorough QT/QTc Study in Healthy Adults*. Clin Ther. 2013 Nov 27.
- Dickstein LP, Franco KN, Rome ES, et al. *Recognizing, managing medical consequences of eating disorders in primary care*. Cleve Clin J Med. 2014 Apr;81(4):255-63.
- Djeddi D, Kongolo G, Lefaix C, Mounard J, Léké A. *Effect of domperidone on QT interval in neonates*. J Pediatr. 2008 Nov;153(5):663-6. Epub 2008 Jun 27. This study shows a significant association between oral domperidone therapy and QTc prolongation. Two risk factors identified: advanced gestational age & serum potassium at the upper limit of normal.
- Ehret GB, et al. *Drug-Induced Long QT Syndrome in Injection Drug Users Receiving Methadone: High Frequency in Hospitalized Patients and Risk Factors*. Arch Intern Med. 2006 Jun 26;166(12):1280-7.
- FDA Feb/10 notified healthcare professionals and patients that it is reviewing clinical trial data about a potentially serious effect on the heart from the use of Invirase (saquinavir) in combination with Norvir (ritonavir), antiviral medications given together to treat HIV infection. The data suggest that together the two drugs may affect the electrical activity of the heart, known as prolonged QT or PR intervals.

- FDA Nov/10 is requesting that manufacturers of the painkiller propoxyphene pull the drug from the market because of concerns over cardiotoxicity. (Propoxyphene is marketed alone as Darvon & combined with acetaminophen as Darvocet.) The agency's request is based on data showing that, even when taken at therapeutic doses, the drug can lead to potentially dangerous changes in the heart's electrical activity, including prolonged PR & QT intervals & widened QRS complex. FDA advises clinicians to stop prescribing propoxyphene and to ask current users to discontinue the drug. FDA's MedWatch alert
- FDA Dec/10 The injectable form of dolasetron mesylate (Anzemet) should not be used to prevent nausea or vomiting related to chemotherapy because the drug increases the risk for torsade de pointes, the FDA announced on Friday. The FDA recommends against using Anzemet injections in patients with congenital long-QT syndrome. The warning does not apply to Anzemet tablets because the risks for developing an abnormal heart rhythm are not as high as with the injections. FDA MedWatch alert (Free)
- FDA July/11 FDA has added a warning to the label of the atypical antipsychotic quetiapine (Seroquel) cautioning about potential increases in the QT interval. Postmarketing cases of QT prolongation have been reported in some 17 patients, according to the New York Times. These patients had overdosed on quetiapine, had other illnesses, or were taking other medications that can cause electrolyte imbalance or QT prolongation.
- FDA Aug/11 The antidepressant citalopram (marketed as Celexa) should not be prescribed at doses above 40 mg/day because higher dosages can cause arrhythmias, the FDA has warned.
- FDA Sep/11 The U.S. Food and Drug Administration (FDA) is informing the public of an ongoing safety review of the anti-nausea drug Zofran (ondansetron, ondansetron hydrochloride and their generics). Ondansetron may increase the risk of developing abnormal changes (QT prolongation & torsades) in the electrical activity of the heart.
- FDA July/12 Alerting clinicians that a single 32-mg intravenous dose of ondansetron (Zofran and generics) may lead to QT interval prolongation, which in turn may put patients at risk for torsades de pointes.
- FDA Dec/12 is working with the manufacturers of all 32 mg dose Ondansetron Injectable Products (brand and generic) to voluntarily recall them from the market due to QT serious cardiac toxicity.
- FDA Mar/13 is warning the public that azithromycin (Zithromax or Zmax) can cause abnormal changes in the electrical activity of the heart that may lead to a potentially fatal irregular heart rhythm. Patients at particular risk for developing this condition include those with known risk factors such as existing QT interval prolongation, low blood levels of potassium or magnesium, a slower than normal heart rate, or use of certain drugs used to treat abnormal heart rhythms, or arrhythmias.
- Funk KA, Bostwick JR. *A Comparison of the Risk of QT Prolongation Among SSRIs*. Ann Pharmacother. 2013 Oct;47(10):1330-41.
- Health Canada Aug/10 Droperidol Injection USP is associated with severe arrhythmia (eg. QT) and the Canadian Monograph of this product has been updated to reflect this risk.
- Health Canada Nov/10 Darvon-N (dextropropoxyphene) - Recall and Withdrawal in Canada - Paladin Labs Inc. Paladin Labs Inc. in collaboration with Health Canada would like to inform healthcare professionals of the voluntary recall and withdrawal of the opioid analgesic Darvon-N (dextropropoxyphene) in Canada. (widen the QRS complex, prolong the QT interval and therefore increase the risk of serious abnormal heart rhythms.)
- Health Canada Feb/12 has recently approved vandetanib (CAPRELSA) to treat medullary thyroid cancer in adult patients where either the tumour cannot be removed by surgery or it has spread from the thyroid gland to other parts of the body. CAPRELSA can cause serious QT heart rhythm changes which may result in sudden death, if left untreated.
- Health Canada Mar/12: Domperidone should be used at the lowest possible dose. The risk of serious ventricular arrhythmias and sudden cardiac death may be higher in patients taking daily doses greater than 30 mg, and in patients over 60 years old.
- Health Canada Oct/12: Ondansetron can cause a dose-dependent prolongation of the electrocardiographic-corrected QT interval (QTc), which can lead to Torsade de Pointes, a potentially life-threatening heart rhythm abnormality. The new maximum recommended single intravenous (IV) dose of ZOFRAN ® is 16 mg infused over 15 minutes.

- Health Canada Oct/13 has completed a safety review of the drug Sensipar (cinacalcet) that identified a possible link between the drug and abnormal heart rhythm (QT) associated with low blood calcium.
- Health Canada Feb/14: TELZIR (fosamprenavir) should not be used with the antiarrhythmic drugs amiodarone, lidocaine (systemic), or quinidine, as this may cause serious and/or life-threatening reactions such as abnormal heart rhythm (arrhythmias). In addition, Telzir should not be used with delavirdine, another antiviral drug to treat HIV, because it may reduce the effectiveness of delavirdine.
- Health Canada Mar/14: REMERON / REMERON RD (mirtazapine) – Abnormal Heart Rhythm - Merck Canada Inc. Cases of abnormal heart rhythm (eg. QT prolongation) have been reported with the antidepressant REMERON / REMERON RD (mirtazapine) mainly with drug overdose or when taking other drugs known to cause heart rhythm problems. The product information has been updated.
- Hough DW, Natarajan J, Vandebosch A, et al. Evaluation of the effect of paliperidone extended release and quetiapine on corrected QT intervals: a randomized, double-blind, placebo-controlled study. Int Clin Psychopharmacol. 2010 Sep 28.
- Hunt K, Hughes CA, Hills-Nieminen C. *Protease Inhibitor-Associated QT Interval Prolongation*. Ann Pharmacother. 2011 Dec;45(12):1544-50.
- Isbister GK, Page CB. *Drug induced QT prolongation: the measurement and assessment of the QT interval in clinical practice*. Br J Clin Pharmacol. 2012 Nov 20.
- Jackson H, Huisman LA, Sanatani S, Arbour LT. *Long QT syndrome*. CMAJ. 2011 Aug 9;183(11):1272-5.
- Johnson JN, Ackerman MJ. *Competitive sports participation in athletes with congenital long QT syndrome*. JAMA. 2012 Aug 22;308(8):764-5.
- Kao WHL, Arking DE, Post W, et al. *Genetic variations in nitric oxide synthase 1 adaptor protein are associated with sudden cardiac death in US white community-based populations*. Circulation 2009; 119:940-951.
- Katz DF, Sun J, Khatri V, et al. *QTc Interval Screening in an Opioid Treatment Program*. Am J Cardiol. 2013 Jun 29.
- Kaufman ES, McNitt S, Moss AJ, Zareba W, et al. *Risk of death in the long QT syndrome when a sibling has died*. Heart Rhythm. 2008 Jun;5(6):831-6. Epub 2008 Mar 4.
- Kempsford R, Allen A, Kelly K, et al. *A Repeat-dose Thorough QT Study of Inhaled Fluticasone Furoate (FF)/Vilanterol (VI) Combination in Healthy Subjects*. Br J Clin Pharmacol. 2013 Oct 4.
- Kleiman RB, Shah RR, Morganroth J. *Replacing the Thorough QT Study: Reflections of a baby in the bath water*. Br J Clin Pharmacol. 2013 Nov 29
- Kori S, Kellerman DJ, Voloshko P, Haugen G. *Effects of a Supratherapeutic Dose of Investigational Orally Inhaled Dihydroergotamine (MAP0004) on QT Interval: A Randomized, Double-Blind, Active- and Placebo-Controlled Crossover Study in Healthy Volunteers*. Clin Ther. 2012 Aug 20.
- Krantz MJ, Martin J, et al. *QTc Interval Screening in Methadone Treatment*. Ann Intern Med. 2009 Jan 19. [Epub ahead print] Recommendation 1 (Disclosure): Clinicians should inform patients of arrhythmia risk when they prescribe methadone. Recommendation 2 (Clinical History): Clinicians should ask patients about any history of structural heart disease, arrhythmia, and syncope. Recommendation 3 (Screening): Obtain a pretreatment electrocardiogram for all patients to measure the QTc interval and a follow-up electrocardiogram within 30 days and annually. Additional electrocardiography is recommended if the methadone dosage exceeds 100 mg/d or if patients have unexplained syncope or seizures. Recommendation 4 (Risk Stratification): If the QTc interval is greater than 450 ms but less than 500 ms, discuss the potential risks and benefits with patients and monitor them more frequently. If the QTc interval exceeds 500 ms, consider discontinuing or reducing the methadone dose; eliminating contributing factors, such as drugs that promote hypokalemia; or using an alternative therapy. Recommendation 5 (Drug Interactions): Clinicians should be aware of interactions between methadone and other drugs that possess QT interval-prolonging properties or slow the elimination of methadone.
- Leitch A, McGinness P, Wallbridge D. *Calculate the QT interval in patients taking drugs for dementia*. BMJ. 2007 Sep 15;335(7619):557.
- Loghin C, Haber H, Beasley CM, et al. *Effects of Atomoxetine on the QT Interval in Healthy CYP2D6 Poor Metabolizers*. Br J Clin Pharmacol. 2012 Jul 16.
- Maluli HA, Meshkov AB. *A short story of the short QT syndrome*. Cleve Clin J Med. 2013 Jan;80(1):41-7.
- Medical Letter –*Treatment Guidelines: Drugs for Cardiac Arrhythmias*. June 2007.

- MHRA Dec/11 Citalopram and escitalopram are associated with dose-dependent QT interval prolongation and should not be used in those with: congenital long QT syndrome; known pre-existing QT interval prolongation; or in combination with other medicines that prolong the QT interval. ECG measurements should be considered for patients with cardiac disease, and electrolyte disturbances should be corrected before starting treatment. For citalopram, new restrictions on the maximum daily doses now apply: 40 mg for adults; 20 mg for patients older than 65 years; and 20 mg for those with hepatic impairment. For escitalopram, the maximum daily dose for patients older than 65 years is now reduced to 10 mg/day; other doses remain unchanged.
- Miceli JJ, Tensfeldt TG, Shiovitz T, et al. *Effects of Oral Ziprasidone and Oral Haloperidol on QTc interval in patients with Schizophrenia or Schizoaffective disorder*. Pharmacotherapy. 2010 Feb;30(2):127-35.
- Mitchell JL, Cuneo BF, et al. *Fetal Heart Rate Predictors of Long QT Syndrome*. Circulation. 2012 Dec 4;126(23):2688-95.
- Moss AJ, Zareba W, Hall WJ, et al. *Effectiveness and limitations of beta-blocker therapy in congenital long-QT syndrome*. Circulation. 2000 Feb 15;101(6):616-23.
- Moretti A, Bellin M, et al. *Patient-specific induced pluripotent stem-cell models for long-QT syndrome*. N Engl J Med 2010.
- Morganroth J, et al; **CAPRIE** Study Group. *A randomized trial comparing the cardiac rhythm safety of moxifloxacin vs levofloxacin in elderly patients hospitalized with community-acquired pneumonia*. Chest. 2005 Nov;128(5):3398-406.
- Morita H, Wu J, Zipes DP. *The QT syndromes: long and short*. Lancet. 2008 Aug 30;372(9640):750-63.
- Napolitano C, et al. *Genetic testing in the long QT syndrome: development and validation of an efficient approach to genotyping in clinical practice*. JAMA. 2005 Dec 21;294(23):2975-80.
- Nelson S, Leung JG. *Torsades de pointes after administration of low-dose aripiprazole*. Ann Pharmacother. 2013 Feb;47(2):e11.
- Newton-Cheh C, Eijgelsheim M, Rice KM, et al. *Common variants at ten loci influence QT interval duration in the **QTGEN** Study*. Nature Genetics 2009; DOI:10.1038/ng.364.
- Newton-Cheh Christopher, Lin Angela E., Baggish Aaron L., et al. Case 11-2011 — *A 47-Year-Old Man with Systemic Lupus Erythematosus and Heart Failure*. N Engl J Med 2011; 364:1450-1460. (Infiltrative cardiomyopathy & possible long-QT syndrome due to hydroxychloroquine)
- Nuttall GA, Eckerman KM, Jacob KA, et al. *Does Low-dose Droperidol Administration Increase the Risk of Drug-induced QT Prolongation and Torsade de Pointes in the General Surgical Population?* Anesthesiology. 2007 Oct;107(4):531-536. This indicates that the Food and Drug Administration black box warning for low dose droperidol is excessive and unnecessary.
- Petropoulou E, Jamshidi Y, Behr ER. *The genetics of pro-arrhythmic adverse drug reactions*. Br J Clin Pharmacol. 2013 Jul 9.
- Phillips Mark; Sullivan B; Snyder B; et al. *Effect of Enzyte on QT and QTc Intervals*. Arch Intern Med. 010;170(15):1402-1404.
- Rao GA, Mann JR, Shoaibi A, et al. *Azithromycin and levofloxacin use and increased risk of cardiac arrhythmia and death*. Ann Fam Med 2014; 12: 121-127.
- Roden DM. Clinical practice. *Long-QT syndrome*. N Engl J Med. 2008 Jan 10;358(2):169-76.
- Sauer AJ, Newton-Cheh C. *Clinical and genetic determinants of torsade de pointes risk*. Circulation. 2012 Apr 3;125(13):1684-94.
- Schwartz PJ, Priori SG, Cerrone M, et al. *Left cardiac sympathetic denervation in the management of high-risk patients affected by the long-QT syndrome*. Circulation. 2004 Apr 20;109(15):1826-33. Epub 2004 Mar 29.
- Schwartz PJ, Spazzolini C, Priori SG, et al. *Who are the long-QT syndrome patients who receive an implantable cardioverter-defibrillator and what happens to them?: data from the European Long-QT Syndrome Implantable Cardioverter-Defibrillator (LQTS ICD) Registry*. Circulation. 2010 Sep 28;122(13):1272-82.
- Shah RR. *Drug-Induced QT Interval Prolongation: Does ethnicity of the thorough QT study population matter?* Br J Clin Pharmacol. 2012 Aug 7.
- Siddique SM, Shariff N, Vesuwala N, et al. *Metoclopramide as a possible cause of prolonged QT syndrome and torsade de pointes in a patient with heart failure and renal insufficiency*. Ann Intern Med. 2009 Apr 7;150(7):502-4.

- Stahlmann R, Lode H. *Safety considerations of fluoroquinolones in the elderly: an update*. Drugs Aging 27 (3): 193-209, 2010.
- Stollberger C, Huber JO, Finsterer J. *Antipsychotic drugs and QT prolongation*. Int Clin Psychopharmacol. 2005 Sep;20(5):243-51.
- Sugiyama A, Nakamura Y, Nishimura S, et al. *Comparison of the effects of levofloxacin on QT/QTc interval assessed in both healthy Japanese and Caucasian subjects*. Br J Clin Pharmacol 2012; 73: 455–9.
- Sy RW, van der Werf C, Chatta IS, et al. *Derivation and validation of a simple exercise-based algorithm for prediction of genetic testing in relatives of LQTS probands*. Circulation. 2011;124:2187–2194.
- Takaya T, Okamoto M, et al. *Torsades de Pointes with QT prolongation related to donepezil use*. J Cardiol. 2009 Dec;54(3):507-11.
- Taubel J, Naseem A, Wang D, et al. *Repeated supratherapeutic dosing of strontium ranelate 4g/d over 15 days does not prolong QTc interval in healthy volunteers*. Br J Clin Pharmacol. 2012 Jan 29.
- Taubel J, Lorch U, Ferber G, et al. *Insulin at normal physiological levels does not prolong QTc interval in thorough QT studies performed in healthy volunteers*. Br J Clin Pharmacol. 2012 Jul 10.
- Thottathil P, Acharya J, Moss AJ, et al. *International Long QT Syndrome Investigative Group. Risk of cardiac events in patients with asthma and long-QT syndrome treated with beta(2) agonists*. Am J Cardiol. 2008 Oct 1;102(7):871-4. Epub 2008 Jul 17.
- Tisdale JE, Jaynes HA, Kingery JR, et al. *Development and Validation of a Risk Score to Predict QT Interval Prolongation in Hospitalized Patients*. Circ Cardiovasc Qual Outcomes. 2013 May 28.
- Tsujimoto T, Yamamoto-Honda R, Kajio H, et al. *Vital signs, QT prolongation, and newly diagnosed cardiovascular disease during severe hypoglycemia in type 1 and type 2 diabetic patients*. Diabetes Care 2013.
- Vallecillo G et al. *Risk of QTc prolongation in a cohort of opioid-dependent HIV-infected patients on methadone maintenance therapy*. Clin Infect Dis 2013 Aug 14.
- Van Dorn CS et al. *QTc Values Among Children and Adolescents Presenting to the Emergency Department*. Pediatrics. 2011 Dec;128(6):e1395-401.
- van Gorp F, Whyte IM, et al. *Clinical and ECG effects of escitalopram overdose*. Ann Emerg Med. 2009 Sep;54(3):404-8.
- van Gorp F, Duffull S, Hackett LP, Isbister GK. *Population pharmacokinetics and pharmacodynamics of escitolapram in overdose and the effect of activated charcoal*. Br J Clin Pharmacol 2012; 73: 402–10.
- Victor M, Castro VM, Clements CC, Murphy SN, et al. *QT interval and antidepressant (citalopram, escitalopram, amitriptyline) use: A cross sectional study of electronic health records*. BMJ 2013.
- Viskin S, Postema PG, Bhuiyan ZA, et al. *The response of the QT interval to the brief tachycardia provoked by standing. A bedside test for diagnosing long-QT syndrome*. J Am Coll Cardiol 2010
- Vrtovec B, Knezevic I, Poglajen G, et al. *Relation of B-Type Natriuretic Peptide Level in Heart Failure to Sudden Cardiac Death in Patients With and Without QT Interval Prolongation*. Am J Cardiol. 2012 Dec 27.
- Wang NC, Maggioni AP, Konstam MA, et al. *Efficacy of Vasopressin Antagonism in Heart Failure Outcome Study With Tolvaptan (**EVEREST**) Investigators. Clinical implications of QRS duration in patients hospitalized with worsening heart failure & reduced left ventricular ejection fraction*. JAMA. 2008 Jun 11;299(22):2656-66. A prolonged QRS duration appears common in patients with reduced LVEF who are hospitalized for heart failure and is an independent predictor of high postdischarge morbidity and mortality.
- Wedam EF, Bigelow GE, Johnson RE, Nuzzo PA, Haigney MC. *QT-Interval Effects of Methadone, Levomethadyl, and Buprenorphine in a Randomized Trial*. Arch Intern Med. 2007 Dec 10;167(22):2469-75. Buprenorphine is associated with less QTc prolongation than levomethadyl or methadone and may be a safe alternative.
- Weinberg G, Di Gregorio G, Hiller D, et al. *Reversal of haloperidol-induced cardiac arrest by using lipid emulsion*. Ann Intern Med. 2009 May 19;150(10):737-8.

- Zeuli JD, Wilson JW, Estes LL. *Effect of combined fluoroquinolone and azole use on QT prolongation in hematology patients*. Antimicrob Agents Chemother. 2013 Mar;57(3):1121-7.
- Zhang Y, Post WS, Dalal D, et al. *QT-interval duration and mortality: results from the Third National Health and Nutrition Examination Survey*. Arch Intern Med. 2011;171(19):1727-1733.

CARDIOLOGY

Stable Ischemic Heart Disease (SIHD) in Older Adults

- Gallagher P, O'Mahony D. *STOPP (Screening Tool of Older Persons' potentially inappropriate Prescriptions): application to acutely ill elderly patients and comparison with Beers' criteria*. Age Ageing 2008;37:673-9.
- 2019 American Geriatrics Society Beers Criteria® Update Expert Panel. *American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults*. J Am Geriatr Soc. 2019 Jan 29. [Epub ahead of print]
- The American Geriatrics Society 2012 Beers Criteria Update Expert Panel. *American Geriatrics Society updated Beers criteria for potentially inappropriate medication use in older adults*. J Am Geriatr Soc2012;60:616-31.
- PL Detail-Document, *Potentially Harmful Drugs in the Elderly: Beers List*. Pharmacist's Letter/Prescriber's Letter. June 2012.
- PL Detail-Document, *STARTing and STOPPing Medications in the Elderly*. Pharmacist's Letter/Prescriber's Letter. September 2011.
- RxFiles *URINARY INCONTINENCE: Drug Comparison Chart*. RxFiles Drug Comparison Chart. Accessed 16 December 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/Cht-urinary-incontinence.pdf
- Fihn SD, Gardin JM, Abrams J, Berra K, Blankenship JC, et al; American College of Cardiology Foundation; American Heart Association Task Force on Practice Guidelines; American College of Physicians; American Association for Thoracic Surgery; Preventive Cardiovascular Nurses Association; Society for Cardiovascular Angiography and Interventions; Society of Thoracic Surgeons. *2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS Guideline for the diagnosis and management of patients with stable ischemic heart disease: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines, and the American College of Physicians, American Association for Thoracic Surgery, Preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons*. J Am Coll Cardiol. 2012 Dec 18;60(24):e44-e164. doi: 10.1016/j.jacc.2012.07.013. Epub 2012 Nov 19.
- Montalescot G, Sechtem U, Achenbach S, Andreotti F, Arden C, Budaj A, et al. *2013 ESC guidelines on the management of stable coronary artery disease: the Task Force on the management of stable coronary artery disease of the European Society of Cardiology*. Eur Heart J. 2013 Oct;34(38):2949-3003.
- Appel LJ, Espeland MA, Easter L, et al. *Effects of reduced sodium intake on hypertension control in older individuals: results from the Trial of Nonpharmacologic Interventions in the Elderly (**TONE**)*. Arch Intern Med. 2001;161:685–93
- *Management of Patients With Stable Ischemic Heart Disease: Executive Summary of a Clinical Practice Guideline From the American College of Physicians/American College of Cardiology Foundation/American Heart Association/American Association for Thoracic Surgery/Preventive Cardiovascular Nurses Association/Society of Thoracic Surgeons Stable Ischemic Heart Disease*. Annals of Internal Medicine, 2014 (January 7): ITC1-1 – ITC1-16. Lexi-Comp, Inc. (Lexi-Drugs TM). Lexi-Comp, Inc.; February 27, 2014.
- Boden WE, Franklin BA, Wenger NK. *Physical Activity and Structured Exercise for Patients With Stable Ischemic Heart Disease*. JAMA 2013;309(2):143-144.
- Boden WE, O'Rourke RA, Teo KK, et al. *Optimal medical therapy with or without PCI for stable coronary disease*. N Engl J Med 2007;356:1503–16. [PubMed: 17387127]
- The **BARI 2D** Study Group. *A randomized trial of therapies for type 2 diabetes and coronary artery disease*. N Engl J Med 2009;360:2503–2515. [PubMed: 19502645]
- De Bruyne B, Pijls NH, Kalesan B, et al. **FAME 2** Trial Investigators. *Fractional flow reserve-guided PCI versus medical therapy in stable coronary disease*. N Engl J Med. 2012 Sep 13;367(11):991-1001. doi: 10.1056/NEJMoa1205361. Epub 2012 Aug 27.
- Carlberg B, Samuelsson O, Lindholm LH. *Atenolol in hypertension: is it a wise choice?* Lancet. 2004 Nov 6;364(9446):1684-9.
- Weiss, B. *Diagnostic Evaluation of Urinary Incontinence in Geriatric Patients*. Am Fam Physician. 1998 Jun 1;57(11):2675-2684.
- Lanier JB, Mote MB, Clay EC. *Evaluation and management of orthostatic hypotension*. Am Fam Physician. 2011 Sep 1;84(5):527-36.

- O'Mahony D, O'Sullivan D, Byrne S, O'Connor MN, Ryan C, Gallagher P. ***STOPP****/START criteria for potentially inappropriate prescribing in older people: version 2*. Age Ageing. 2014 Oct 16.
- Mancini GB, Gosselin G, Chow B, Kostuk W, Stone J, Yvorchuk KJ, et al; Canadian Cardiovascular Society. *Canadian Cardiovascular Society guidelines for the diagnosis and management of stable ischemic heart disease*. Can J Cardiol. 2014. Aug;30(8):837-49.
- Fihn SD, Blankenship JC, Alexander KP, Bittl JA, Byrne JG, Fletcher BJ, et al; American College of Cardiology/Americal Heart Association Task Force on Practice; American Association for Thoracic Surgery; Preventive Cardiovascular Nurses Association; Society for Cardiovascular Angiography and Interventions; Society of Thoracic Surgeons. *2014 ACC/AHA/AATS/PCNA/SCAI/STS focused update of the guideline for the diagnosis and management of patients with stable ischemic heart disease: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines, and the American Association for Thoracic Surgery, Preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons*. J Thorac Cardiovasc Surg. 2015 Mar;149(3):e5-23.

ENDOCRINE & METABOLIC

Diabetes

1. American Diabetes Association. 12. Older Adults: Standards of Medical Care in Diabetes-2019. Diabetes Care. 2019 Jan;42(Suppl 1):S139-S147. doi: 10.2337/dc19-S012. Review. PubMed PMID: 30559238.
2. Diabetes Canada Clinical Practice Guidelines Expert Committee. *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*. Can J Diabetes. 2018;42(Suppl 1):S1-S325.
3. LeRoith D, Biessels GJ, Braithwaite SS, Casanueva FF, Draznin B, Halter JB, Hirsch IB, McDonnell ME, Molitch ME, Murad MH, Sinclair AJ. Treatment of Diabetes in Older Adults: An Endocrine Society* Clinical Practice Guideline. J Clin Endocrinol Metab. 2019 May 1;104(5):1520-1574. doi: 10.1210/jc.2019-00198. PubMed
4. Diabetes Canada Clinical Practice Guidelines Expert Committee. *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*. Can J Diabetes. 2018;42(Suppl 1):S1-S325.
5. American Diabetes Association. 11. Older Adults: Standards of Medical Care in Diabetes-2018. Diabetes Care. 2018 Jan;41(Suppl 1):S119-S125. doi: 10.2337/dc18-S011. Review. PubMed PMID: 29222382.
6. Dunning T, Sinclair A, Colagiuri S. New IDF Guideline for managing type 2 diabetes in older people. Diabetes Res Clin Pract 2014;103(3):538-40.
7. Diabetes Canada Clinical Practice Guidelines Expert Committee. *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*. Can J Diabetes. 2018;42(Suppl 1):S1-S325.
8. LeRoith D, Biessels GJ, Braithwaite SS, Casanueva FF, Draznin B, Halter JB, Hirsch IB, McDonnell ME, Molitch ME, Murad MH, Sinclair AJ. Treatment of Diabetes in Older Adults: An Endocrine Society* Clinical Practice Guideline. J Clin Endocrinol Metab. 2019 May 1;104(5):1520-1574. doi: 0.1210/jc.2019-00198. PubMed
9. LeRoith D, Biessels G, Braithwaite S, et al. Treatment of Diabetes in Older Adults: An Endocrine Society Clinical Practice Guideline. J Clin Endocrinol Metab 2019;104(5):1520-74. doi: 10.1210/jc.2019-00198. PMID: 30903688.
10. American Diabetes Association. 12. Older Adults: Standards of Medical Care in Diabetes-2019. Diabetes Care. 2019 Jan;42(Suppl 1):S139-S147. doi: 10.2337/dc19-S012. Review. PubMed PMID: 30559238.
11. Feinkohl I, Aung PP, Keller M, Robertson CM, Morling JR, McLachlan S, Deary IJ, Frier BM, Strachan MW, Price JF; Edinburgh Type 2 Diabetes Study (ET2DS) Investigators. Severe hypoglycemia and cognitive decline in older people with type 2 diabetes: the Edinburgh type 2 diabetes study. Diabetes Care. 2014 Feb;37(2):507-15. doi: 10.2337/dc13-1384. Epub 2013 Oct 8. PubMed PMID: 24103900.
12. Diabetes Canada Clinical Practice Guidelines Expert Committee. *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*. Can J Diabetes. 2018;42(Suppl 1):S1-S325.
13. Munshi MN, Segal AR, Suhl e et al. Frequent hypoglycemia among elderly patients with poor glycemic control. Arch Intern Med 2011; 171:362-4
14. Diabetes Canada Clinical Practice Guidelines Expert Committee. *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*. Can J Diabetes. 2018;42(Suppl 1):S1-S325.
15. American Diabetes Association. 12. Older Adults: Standards of Medical Care in Diabetes-2019. Diabetes Care. 2019 Jan;42(Suppl 1):S139-S147. doi: 10.2337/dc19-S012. Review. PubMed PMID: 30559238.
16. LeRoith D, Biessels G, Braithwaite S, et al. Treatment of Diabetes in Older Adults: An Endocrine Society Clinical Practice Guideline. J Clin Endocrinol Metab 2019;104(5):1520-74. doi: 10.1210/jc.2019-00198. PMID: 30903688.
17. Huang ES, Liu JY, Moffet HH, et al. Glycemic control, complications, and death in older diabetic patients: The diabetes and aging study. Diabetes Care 2011;34:1329–36.

18. Hamada S, Gulliford MC. Mortality in individuals aged 80 and older with type 2 diabetes mellitus in relation to glycosylated hemoglobin, blood pressure, and total cholesterol. J Am Geriatr Soc 2016;64:1425–31.
19. Huang ES, Liu JY, Moffet HH, et al. Glycemic control, complications, and death in older diabetic patients: The diabetes and aging study. Diabetes Care 2011;34:1329–36.
20. Hamada S, Gulliford MC. Mortality in individuals aged 80 and older with type 2 diabetes mellitus in relation to glycosylated hemoglobin, blood pressure, and total cholesterol. J Am Geriatr Soc 2016;64:1425–31.
21. Conway BN, Long DM, Figaro MK, et al. Glycemic control and fracture risk in elderly patients with diabetes. Diabetes Res Clin Pract 2016;115:47–53.
22. Flory JH, Hennessy S. Metformin use reduction in mild to moderate renal impairment: possible inappropriate curbing of use based on food and drug administration contraindications. JAMA Intern Med. 2015 Mar;175(3):458-9. doi: 10.1001/jamainternmed.2014.6936. PubMed PMID: 25561419.
23. Many references support the use of DPP-4s in Older Adults:
    - Umezawa S, Kubota A, Maeda H, et al. Two-year assessment of the efficacy and safety of sitagliptin in elderly patients with type 2 diabetes: Post hoc analysis of the ASSET-K study. BMC Endocr Disord 2015;15:34.
    - Lajara R, Aguilar R, Hehnke U, et al. Efficacy and safety of linagliptin in subjects with long-standing type 2 diabetes mellitus (>10 years): Evidence from pooled data of randomized, double-blind, placebo-controlled, phase III trials. Clin Ther 2014;36:1595–605.
    - Schernthaner G, Barnett AH, Patel S, et al. Safety and efficacy of the dipeptidyl peptidase-4 inhibitor linagliptin in elderly patients with type 2 diabetes: A comprehensive analysis of data from 1331 individuals aged ≥ 65 years. Diabetes Obes Metab 2014;16:1078–86.
    - Round EM, Engel SS, Golm GT, et al. Safety of sitagliptin in elderly patients with type 2 diabetes: A pooled analysis of 25 clinical studies. Drugs Aging 2014;31:203–14.
    - Barnett AH, Huisman H, Jones R, et al. Linagliptin for patients aged 70 years or older with type 2 diabetes inadequately controlledwith common antidiabetes treatments: A randomised, double-blind, placebo-controlled trial. Lancet 2013;382:1413–23.
    - Karyekar CS, Ravichandran S, Allen E, et al. Tolerability and efficacy of glycemic control with saxagliptin in older patients (aged ≥ 65 years) with inadequately controlled type 2 diabetes mellitus. Clin Interv Aging 2013;8:419–30.
    - Schwartz SL. Treatment of elderly patients with type 2 diabetes mellitus: A systematic review of the benefits and risks of dipeptidyl peptidase-4 inhibitors. Am J Geriatr Pharmacother 2010;8:405–18.
    - Doucet J, Chacra A, Maheux P, et al. Efficacy and safety of saxagliptin in older patients with type 2 diabetes mellitus. Curr Med Res Opin 2011;27:863–9.
    - Barzilai N, Guo H, Mahoney EM, et al. Efficacy and tolerability of sitagliptin monotherapy in elderly patients with type 2 diabetes: A randomized, doubleblind, placebo-controlled trial. Curr Med Res Opin 2011;27:1049–58.
    - Chien M-N, Lee C-C, ChenW-C, et al. Effect of sitagliptin as add-on therapy in elderly type 2 diabetes patients with inadequate glycemic control in taiwan. Int J Gerontol 2011;5:103–6. http://www.sciencedirect.com/science/article/pii/S1873959811000469.
    - Shankar RR, Xu L, Golm GT, et al. A comparison of glycaemic effects of sitagliptin and sulfonylureas in elderly patients with type 2 diabetes mellitus. Int J Clin Pract 2015;69:626–31.
    - Bron M, Wilson C, Fleck P. A post hoc analysis of HbA1c, hypoglycemia, and weight change outcomes with alogliptin vs glipizide in older patients with type 2 diabetes. Diabetes Ther 2014;5:521–34.
    - Schernthaner G, Duran-Garcia S, Hanefeld M, et al. Efficacy and tolerability of saxagliptin compared with glimepiride in elderly patients with type 2 diabetes: A randomized, controlled study (GENERATION). Diabetes Obes Metab 2015;17:630–8.
    - Hartley P, Shentu Y, Betz-Schiff P, et al. Efficacy and tolerability of sitagliptin compared with glimepiride in elderly patients with type 2 diabetes mellitus and inadequate glycemic control: A randomized, double-blind, non-inferiority trial. Drugs Aging 2015;32:469–76.

- Rosenstock J, Wilson C, Fleck P. Alogliptin versus glipizide monotherapy in elderly type 2 diabetes mellitus patients with mild hyperglycaemia: A prospective, double-blind, randomized, 1-year study. Diabetes Obes Metab 2013;15:906–14.
- Inzucchi SE, Nauck MA, Hehnke U, et al. Improved glucose control with reduced hypoglycaemic risk when linagliptin is added to basal insulin in elderly patients with type 2 diabetes. Diabetes Obes Metab 2015;17:868–77.
- Leiter LA, Teoh H, Braunwald E, et al. Efficacy and safety of saxagliptin in older participants in the SAVOR-TIMI 53 trial. Diabetes Care 2015;38:1145–53.

24. Diabetes Canada Clinical Practice Guidelines Expert Committee. *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*. Can J Diabetes. 2018;42(Suppl 1):S1-S325.
25. Green JB, Bethel MA, Armstrong PW, Buse JB, Engel SS, Garg J, Josse R, Kaufman KD, Koglin J, Korn S, Lachin JM, McGuire DK, Pencina MJ, Standl E, Stein PP, Suryawanshi S, Van de Werf F, Peterson ED, Holman RR; TECOS Study Group. Effect of Sitagliptin on Cardiovascular Outcomes in Type 2 Diabetes. N Engl J Med. 2015 Jul 16;373(3):232-42. doi: 10.1056/NEJMoa1501352. Epub 2015 Jun 8. Erratum in: N Engl J Med. 2015 Aug 6;373(6):586. PubMed PMID: 26052984.
26. Barnett AH, Huisman H, Jones R, von Eynatten M, Patel S, Woerle HJ. Linagliptin for patients aged 70 years or older with type 2 diabetes inadequately controlled with common antidiabetes treatments: a randomised, double-blind, placebo-controlled trial. Lancet. 2013 Oct 26;382(9902):1413-23. doi: 10.1016/S0140-6736(13)61500-7. Epub 2013 Aug 13. PubMed PMID: 23948125.
27. CADTH. New Drugs for Type 2 Diabetes: Second-Line Therapy – Recommendations Report. May 2017. https://www.cadth.ca/dv/new-drugs-type-2-diabetes-second-line-therapy-recommendations-report
28. Diabetes Canada Clinical Practice Guidelines Expert Committee. *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*. Can J Diabetes. 2018;42(Suppl 1):S1-S325.
29. American Diabetes Association. 12. Older Adults: Standards of Medical Care in Diabetes-2019. Diabetes Care. 2019 Jan;42(Suppl 1):S139-S147. doi: 10.2337/dc19-S012. Review. PubMed PMID: 30559238.
30. Marso S, Danels G, Brown-Frandsen K, et al. Liraglutide and cardiovascular outcomes in type 2 diabetes. N Engl J Med 2016;374:311-22.
31. Marso S, Bain S, console A, et al. Semaglutide and cardiovascular outcomes in pateints with type 2 diabetes. N Engl J Med 2016;375:1834-44.
32. Pfeffer M, Claggett B, Diaz R, et al. Lixisenatide in patients with type 2 diabetes and acute coronary syndrome. N Eng J Med. 2015;373:2247-57.
33. Holman RR, Bethel MA, Mentz RJ, et al. Effects of Once-Weekly Exenatide on Cardiovascular Outcomes in Type 2 Diabetes. (EXSCEL) N Engl J Med. 2017 Sep 14.
34. Government of Canada. Summary Safety Review – SGLT2 Inhibitors (canagliflozin, dapagliflozin, empagliflozin) – Assessing the risk of the body producing high levels of acids in the blood (diabetic ketoacidosis. May 16, 2016. https://www.canada.ca/en/health-canada/services/drugs-health-products/medeffect-canada/safety-reviews/summary-safety-review-sglt2-inhibitors-canagliflozin-dapagliflozin-empagliflozin.html, accessed June 14, 2018
35. Diabetes Canada Clinical Practice Guidelines Expert Committee. *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*. Can J Diabetes. 2018;42(Suppl 1):S1-S325.
36. Diabetes Canada Clinical Practice Guidelines Expert Committee. *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*. Can J Diabetes. 2018;42(Suppl 1):S1-S325.
37. Munshi M, Slyne C, Segal A, et al. Simplification of insulin regimen in older adults and risk of hypoglycemia. JAMA Intern Med 2016;176:1023-6.
38. Diabetes Canada Clinical Practice Guidelines Expert Committee. *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*. Can J Diabetes. 2018;42(Suppl 1):S1-S325.

39. Geller AI, Shehab N, Lovegrove MC, Kegler SR, Weidenbach KN, Ryan GJ, Budnitz DS. National estimates of insulin-related hypoglycemia and errors leading to emergency department visits and hospitalizations. JAMA Intern Med. 2014 May;174(5):678-86. doi: 10.1001/jamainternmed.2014.136. PubMed PMID: 24615164.
40. Geller AI, Shehab N, Lovegrove MC, Kegler SR, Weidenbach KN, Ryan GJ, Budnitz DS. National estimates of insulin-related hypoglycemia and errors leading to emergency department visits and hospitalizations. JAMA Intern Med. 2014 May;174(5):678-86. doi: 10.1001/jamainternmed.2014.136. PubMed PMID: 24615164.
41. Cardiovascular Protection in People With Diabetes ? (is this part of this one or separate?) Diabetes Canada Clinical Practice Guidelines Expert Committee

Additional References:

- O'Mahony D, O'Sullivan D, Byrne S, O'Connor MN, Ryan C, Gallagher P. **STOPP**/START criteria for potentially inappropriate prescribing in older people: version 2. Age Ageing. 2014 Oct 16.
- James A. Stone MD, PhD, FRCPC, Robyn L. Houlden MD, FRCPC, Peter Lin MD, CCFP, Jacob A. Udell MD, MPH, FRCPC, Subodh Verma MD, PhD, FRCSC, FAHA

GASTROINTESTINAL

Acid Suppression in Older Adults

- CADTH - COMPUS Scientific Report: *Evidence for PPI in gastroesophageal reflux disease, dyspepsia and peptic ulcer disease* [Scientific Report], March 2007. Accessible online at: http://www.cadth.ca/media/compus/reports/compus_Scientific_Report_final.pdf {Related COMPUS reports/tools available at: http://www.cadth.ca/index.php/en/compus/current-topics/ppis }
- Khan M, Santana J, Donnellan C, Preston C, Moayyedi P. *Medical treatments in the short-term management of reflux oesophagitis*. Cochrane Database Syst Rev. 2007 Apr 18;(2):CD003244.:CD003244.
- Kahrilas PJ, Shaheen NJ, Vaezi MF, Hiltz SW, Black E, Modlin IM. *American Gastroenterological Association Medical Position Statement on the Management of Gastroesophageal Reflux Disease*. Gastroenterology. 2008;135:1383-1391.
- Kahrilas PJ. *Clinical Practice: Gastroesophageal reflux disease*. N Engl J Med 2008;359(16):1700-1707.
- Kaltenbach K, Crockett S, Gerson LB. *Are lifestyle measures effective in patients with gastroesophageal reflux disease?* Arch Intern Med 2006;166(9):965-971.

GASTROINTESTINAL

Constipation in Older Adults

1. Ford A, Moayyedi P, Lacy B et al. *American college of gastroenterology monograph on the management of irritable bowel syndrome and chronic idiopathic constipation*. American Journal of Gastroenterology. 2014;109(1):S2-S26.
2. Lee-Robichaud H, Thomas K, Morgan J, Nelson R. *Lactulose versus polyethylene glycol for chronic constipation*. Cochrane Database Syst Rev. 2010;(7):CD007570.
3. Kamm M, Mueller-Lissner S, Wald A, et al. *Oral bisacodyl is effective and well-tolerated in patients with chronic constipation*. Clin Gastroenterol Hepatol. 2011;9:577-83.
4. Candy B, Jones L, Vickerstaff V, et al. *Mu-opioid antagonists for opioid-induced dysfunction in people with cancer and people receiving palliative care*. Cochrane Database Syst Rev. 2018 Jun 5;6:CD006332.
5. Chey W, Webster L, Sostek M et al. *Naloxegol for opiod-induced constipation in patients with noncancer pain*. N Engl J Med. 2014;370;25:2387-96.

Additional References:

- Ford AC, Moayyedi P, Lacy BE, et al; Task Force on the Management of Functional Bowel Disorders. *American College of Gastroenterology monograph on the management of irritable bowel syndrome and chronic idiopathic constipation*. Am J Gastroenterol. 2014 Aug;109 Suppl 1:S2-26.
- American Gastroenterological Association, Bharucha AE, Dorn SD, Lembo A, Pressman A. *American Gastroenterological Association medical position statement on constipation*. Gastroenterology. 2013 Jan;144(1):211-7.
- Bharucha AE, Pemberton JH, Locke GR 3rd. *American Gastroenterological Association technical review on constipation*. Gastroenterology. 2013 Jan;144(1):218-38.
- Gray JR. *What is chronic constipation? Definition and diagnosis*. Can J Gastroenterol. 2011 Oct;25 Suppl B:7B-10B.
- Andrews CN, Storr M. *The pathophysiology of chronic constipation*. Can J Gastroenterol. 2011 Oct;25 Suppl B:16B-21B.
- Jamshed N, Lee ZE, Olden KW. *Diagnostic approach to chronic constipation in adults*. Am Fam Physician. 2011 Aug 1;84(3):299-306.
- Pare P. *The approach to diagnosis and treatment of chronic constipation: suggestions for a general practitioner*. Can J Gastroenterol. 2011 Oct 25; 25 Suppl B: 36B-40B.
- Liu LW. *Chronic constipation: current treatment options*. Can J Gastroenterol. 2011 Oct;25 Suppl B:22B-28B.
- Paré P, Bridges R, Champion MC, Ganguli SC, Gray JR, Irvine EJ, Plourde V, Poitras P, Turnbull GK, Moayyedi P, Flook N, Collins SM. *Recommendations on chronic constipation (including constipation associated with irritable bowel syndrome) treatment*. Can J Gastroenterol. 2007 Apr;21 Suppl B:3B-22B.
- Kosar L, Schuster B. RxFiles. *Management of Constipation*. October 2014.
- Canadian Agency for Drugs and Technologies in Health (CADTH). *Rapid Response Report: Dioctyl Sulfosuccinate or Docusate (Calcium or Sodium) for the Prevention or Management of Constipation: A Review of the Clinical Effectiveness*. June 2014.
- Fleming V, Wade WE. *A review of laxative therapies for treatment of chronic constipation in older adults*. Am J Geriatr Pharmacother. 2010 Dec;8(6):514-50.
- Gallegos-Orozco JF, Foxx-Orenstein AE, Sterler SM, Stoa JM. *Chronic constipation in the elderly*. Am J Gastroenterol. 2012 Jan;107(1):18-25.
- Gandell D, Straus SE, Bundookwala M et al. *Treatment of constipation in older people*. CMAJ. 2013 May 14;185(8):663-70.
- Lewis SJ, Heaton KW. *Stool form scale as a useful guide to intestinal transit time*. Scand J Gastroenterol. 1997 Sep;32(9):920-4. (**Bristol Stool Chart**)
- Johanson JF, Kralstein J. *Chronic constipation: a survey of the patient perspective*. Aliment Pharmacol Ther. 2007 Mar 1;25(5):599-608.

- Branch RL, Butt T. *Adverse Drug Reaction Bulletin: Drug-induced constipation*. August 2009.
- Robson KM, Kiely DK, Lembo T. *Development of constipation in nursing home residents*. Dis Colon Rectum. 2000 Jul; 43(7): 940-3.
- Lindeman RD, Romero LJ, Liang HC, Baumgartner RN, Koehler KM, Garry PJ. *Do elderly persons need to be encouraged to drink more fluids?* J Gerontol A Biol Sci Med Sci. 2000 Jul; 55(7):M361-6.
- Lever E, Cole J, Scott SM, Emery PW, Whelan K. *Systematic review: the effect of prunes on gastrointestinal function*. Aliment Pharmacol Ther. 2014 Oct; 40(7): 750-8.
- Attaluri A, Donahoe R, Valestin J, Brown K, Rao SS. *Randomized clinical trial: dried plumes (prunes) versus psyllium for constipation*. Aliment Pharmacol Ther. 2011 Apr; 33(7): 822-8.
- Schuster B, Koser L, Kamrul R. *Constipation in older adults. Stepwise approach to keep things moving*. CFP. 2015;61:152-158
- Mounsey A, Raleigh M, Wilson A. *Management of constipation in older adults*. Am Fam Physician. 2015;92(6):500-4.
- Emmanuel A, Mattace-Raso F, Neri M, et al. *Constipation in older people: A consensus statement.* Int J Clin Pract. 2017;71:e12920; DOI:10.1111/ijcp.12920.
- Specialist LINK, Primary Care Networks Calgary and area, Calgary Division of Gastroenterology & Hepatology, Alberta Health Services. *Enhanced Primary Care Pathway – Constipation*. 2016;December. https://www.specialistlink.ca/files/CONSTIPATION_Enhanced_Primary_Care_Pathway_Dec_2016_2.pdf, accessed March 6, 2019.
- Crockett S, Greer K, Heidelbaugh J, et al. *American Gastroenterological Association Institute Guideline on the medical management of opioid-induced constipation*. Gastroenterology. 2019;156:218-226.
- Registered Nurses' Association of Ontario (2005). *Prevention of Constipation in the Older Adult Population*. (Revised). Toronto, Canada: Registered Nurses' Association of Ontario. Supplement updated in 2011. https://rnao.ca/sites/rnao-ca/files/Prevention_of_Constipation_in_the_Older_Adult_Population.pdf, https://rnao.ca/sites/rnao-ca/files/Constipation_supplement_2011.pdf, accessed March 6, 2019.
- Paquette I, Varma M, Ternent C, et al. *The American Society of Colon and Rectal Surgeons' Clinical Practice Guideline for the evaluation and management of constipation*. Dis Colon Rectum 2016;59:479-92. https://www.fascrs.org/sites/default/files/downloads/publication/clinical_practice_guideline_for_constipation.pdf, accessed March 6, 2019.
- Tse Y, Armstrong D, Andrews C, et al. *Treatment algorithm for chronic idiopathic constipation and constipation-predominant irritable bowel syndrome derived from a Canadian national survey and needs assessment on choices of therapeutic agents*. Canadian Journal of Gastroenterology and Hepatology; 2017;2017, Article ID 8612189, 11 pages.

GENITOURINARY

Renal Insufficiency in Older Adults

1. Lam El, Webb MC, Simpson De, et al. *Estimate of glomerular filtration rate in older patients with renal insufficiency: is the modification of diet in renal disease formula an improvement?* J am Geriatr Soc. 2003; 51:1012-7.
2. Carter JL, Stevens PE, Irving JE, Lamb EJ. *Estimating glomerular filtration rate: comparison of the CKD-EPI and MDRD equations in a large UK cohort with particular emphasis on the effect of age*. QJM. 2011 Oct;104(10):839-47. doi: 10.1093/qjmed/hcr077. Epub 2011 Jun 6. PubMed PMID: 21652537.
3. Arora P, Vasa P, Brenner D, et al. *Prevalence estimates of chronic kidney disease in Canada: results of a nationally representative survey*. CMAJ 2013. DOI:10.1503/cmaj.120833.
4. McClellan WM, Resnick B, Lei L, et al. *Prevalence and severity of chronic kidney disease and anemia in the nursing home population*. J Am Med Dir Assoc 2010 Jan; 11(1): 33-41.
5. Sanjeevkumar RP, Wiggins JE. *Kidney Diseases and Disorders*. Chapter 52. Geriatrics Care Online.
6. Richardson MM. *Precision versus Approximation: The Trade Off in Assessing Kidney Function and Drug Dosing*. Pharmacotherapy 2010; 30(8): 758-761.
7. Nguyen MT, Maynard SE, Kimmel PL. *Misapplications of Commonly Used Kidney Equations: Renal Physiology in Practice*. Clin J Am Soc Nephrol 2009; 4: 528-534.
8. *The Kidneys* (Chapter 7). Basic Skills in Interpreting Laboratory Data. Edited by Mary Lee. 4th Edition. 2009. American Society of Health Systems Pharmacists.
9. O'Riordan P, Stevens PE, Lamb EJ. *Estimated glomerular filtration rate*. BMJ. 2014 Jan 24;348:g264. doi: 10.1136/bmj.g264. Review. PubMed PMID: 24464281.
10. Michels WM, Grootendorst DC, Verduijn M, Elliott EG, Dekker FW, Krediet RT. *Performance of the Cockcroft-Gault, MDRD, and new CKD-EPI formulas in relation to GFR, age, and body size*. Clin J Am Soc Nephrol. 2010 Jun;5(6):1003-9. doi: 10.2215/CJN.06870909. Epub 2010 Mar 18. PubMed PMID: 20299365; PubMed Central PMCID: PMC2879308.
11. Saskatchewan Drug Information Service (SDIS). *Drug Dosage Adjustment in Chronic Kidney Disease: The Pharmacist's Role*. Nov 2012;29(3)
12. Michels WM, Grootendorst DC, Verduijn M, Elliott EG, Dekker FW, Krediet RT. *Performance of the Cockcroft-Gault, MDRD, and new CKD-EPI formulas in relation to GFR, age, and body size*. Clin J Am Soc Nephrol. 2010 Jun;5(6):1003-9. doi: 10.2215/CJN.06870909. Epub 2010 Mar 18. PubMed PMID: 20299365; PubMed Central PMCID: PMC2879308.
13. Chen Y-C, et al. *Risk factors associated with adverse drug events among older adults in emergency department*. Eur J Intern Med (2013), http://dx.doi.org/10.1016/j.ejim.2013.10.006
14. Hellden A, Bergman U, von Euler M, et al. *Adverse drug reactions and impaired renal function in elderly patients admitted to the emergency department: a retrospective study*. Drugs Aging 2009; 26(7): 595-606.
15. Hu KT, Matayoshi A, Stevenson FT. *Calculation of the estimated creatinine clearance in avoiding drug dosing errors in the older patient*. Am J Med Sci 2001;322:133–136
16. Saskatchewan Drug Information Service (SDIS). *Drug Dosage Adjustment in Chronic Kidney Disease: The Pharmacist's Role*. Nov 2012;29(3)
17. Pretorius RW, Gataric G, Swedlund S, et al. *Reducing the Risk of Adverse Drug Events in Older Adults*. Am Fam Physician 2013; Mar 1; 87(5): 331-336.

GENITOURINARY

Urinary Incontinence in Older Adults

1. O'Mahony D, O'Sullivan D, Byrne S, O'Connor MN, Ryan C, Gallagher P. *STOPP/START criteria for potentially inappropriate prescribing in older people: version 2*. Age Ageing. 2014 Oct 16.
2. The American Geriatrics Society 2019 Beers Criteria Update Expert Panel. *American Geriatrics Society updated Beers criteria for potentially inappropriate medication use in older adults*. J Am Geriatr Soc 2019;00:1-21
3. PL Detail-Document, *Potentially Harmful Drugs in the Elderly: Beers List*. Pharmacist's Letter/Prescriber's Letter. June 2012.
4. PL Detail-Document, *STARTing and STOPPing Medications in the Elderly*. Pharmacist's Letter/Prescriber's Letter. September 2011.
5. RxFiles *URINARY INCONTINENCE: Drug Comparison Chart*. RxFiles Drug Comparison Chart. Accessed 16 December 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/Cht-urinary-incontinence.pdf
6. Bettez M, Tu LM, Carlson K, Corcos J, Gajewski J, Jolivet M, Bailly G. *2012 Update: Guidelines for Adult Urinary Incontinence Collaborative Consensus Document for the Canadian Urological Association*. Can Urol Assoc J 2012;6(5):354-63. http://dx.doi.org/10.5489/cuaj.12248
7. Corcos J, Przydacz M, Campeau L, Gray G, Hicklin D, Honeine C, et al. *CUA guideline on adult overactive baldder*. Can Urol Assoc J. 2017;11(5):E142-73. http://dx.doi.org/10.5489/cuaj.4586
8. Society of Obstetricians and Gynaecologists of Canada (SOGC). *SOGC clinical practice guidelines: treatments for overactive bladder: focus on pharmacotherapy*. J Obstet Gynaecol Can 2012 Nov;34(11):1092-101.
9. Gormley EA, Lightner DJ, Burgio KL, Chai TC, et al. *Diagnosis and treatment of overactive bladder (non-neurogenic) in adults: AUA/SUFU guideline*. Linthicum (MD): American Urological Association (AUA); 2012 May. (J Urol. 2012 Oct 19. pii: S0022-5347(12)04959-2.)
10. *Urinary Incontinence in Women: NICE Guidelines*. http://www.nice.org.uk/nicemedia/live/14271/65143/65143.pdf National Institute for Health and Clinical Excellence (NICE) clinical guideline 171; September 2013
11. Balk E, Adam GP, Kimmel H, Rofeberg V, Saeed I, Jeppson P, Trikalinos T. *Nonsurgical Treatments for Urinary Incontinence in Women: A Systematic Review Update*. (Prepared by the Brown Evidence-based Practice Center under Contract No. 290-2015-00002-I for AHRQ and PCORI.) AHRQ Publication No. 18-EHC016-EF. PCORI Publication No. 2018- SR-03. Rockville, MD: Agency for Healthcare Research and Quality; August 2018. Posted final reports are located on the Effective Health Care Program search page. https://doi.org/10.23970/AHRQEPCCER212.
12. World Health Organization. Integrated care for older people (ICOPE). *Evidence profile: urinary incontinence*. 2017. http://www.who.int/ageing/health-systems/icope/evidence-centre/ICOPE-evidence-profile-urinary-incont.pdf , accessed August 23, 2018.
13. The Canadian continence foundation. *Incontinence: A Canadian perspective*; 2007. http://www.canadiancontinence.ca/pdf/Research_paper_August2007.pdf (Accessed 18 December 2013)
14. Herschorn s, Gajewski J, Schul J, and Corcos J. *A population-based study of urinary symptoms and incontinence: the Canadian Urinary Bladder Survey*. BJU International. 2007;101:52-8.
15. Offermans MP, Du Moulin MF, Hamers JP, et al. *Prevalence of urinary incontinence and associated risk factors in nursing home residents: a systematic review*. Neurourol Urodyn 2009;28:288-94.
16. Ouslander JG. *Management of Overactive Bladder*. NEJM 2004;350:786-99.
17. Diokno A, Sand P, Labasky R, et al. *Long-term safety of extended-release oxybutynin chloride in a community-dwelling population of participants with overactive bladder: a one-year study*. Int Urol Nephrol. 2002;34(1):43-9.
18. Brown JS, Vittinghoff E, Wyman JF, Stone KL, Nevitt MC, Ensrud KE, Grady D. *Urinary incontinence: does it increase risk for falls and fractures? Study of Osteoporotic Fractures Research Group*. J Am Geriatr Soc. 2000 Jul;48(7):721-5.

19. Bogner HR, Gallo JJ, Sammel MD, Ford DE, Armenian HK, Eaton WW. *Urinary incontinence and psychological distress in community-dwelling older adults*. J Am Geriatr Soc. 2002 Mar;50(3):489-95.
20. RxFiles *URINARY INCONTINENCE: Drug Comparison Chart*. RxFiles Drug Comparison Chart. Accessed 16 December 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/Cht-urinary-incontinence.pdf
21. Durso SC, Sullivan GM, eds. *Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine*. 8th ed. New York: American Geriatrics Societ; 2013
22. Golabek T, Skalski M, Przydacz M, et al. *Lower urinary tract symptoms, nocturia, and overactive bladder in patients with depression and anxiety*. Psychiatr Pol 2016;50:417-30
23. Dmochowski RR, Sanders SW, Appell RA, Nitti VW, Davila GW. *Bladder-health diaries: an assessment of 3-day vs 7-day entries*. BJU Int. 2005 Nov;96(7):1049-54.
24. Hersh L, Salzman B. *Clinical management of urinary incontinence in women*. Am Fam Physician. 2013 May 1;87(9):634-40.
25. *Urinary Incontinence: The management of urinary incontinence in women*. www.nice.org.uk/nicemedia/pdf/CG40fullguideline.pdf National Institute for Health and Clinical Excellence (NICE) clinical guideline 40; October 2006:1-14.
26. Hashim H, Abrams P. *How should patients with an overactive bladder manipulate their fluid intake?* BJU Int. 2008 Jul;102(1):62-6.
27. (Physiotherapy- especially if pt can't isolate or exercising wrong muscles, or if stops breathing during Kegels; Saskatoon Health Region: Pelvic Floor Rehab Program 655-8208, typically sees females q1-2weeks x 8 times, waiting list ~6months; Private Clinics in Saskatoon also treat, quicker access, 3rd party coverage?: Bourassa & Daniels Kimber) Nurse Continence Advisor: Eliza Meggs RN,NCA (Nightingale Nursing Group) Phone: 306-652-3314
28. *Urinary Incontinence: The management of urinary incontinence in women*. www.nice.org.uk/nicemedia/pdf/CG40fullguideline.pdf National Institute for Health and Clinical Excellence (NICE) clinical guideline 40; October 2006:1-14.
29. Dumoulin C, Hay-Smith J. *Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women*. Cochrane Database of Systematic Reviews 2010, Issue 1. Art. No.: CD005654. DOI:10.1002/14651858.CD005654.pub2.
30. *Urinary Incontinence: The management of urinary incontinence in women*. www.nice.org.uk/nicemedia/pdf/CG40fullguideline.pdf National Institute for Health and Clinical Excellence (NICE) clinical guideline 40; October 2006:1-14.
31. Diokno A, Sand P, Labasky R, et al. *Long-term safety of extended-release oxybutynin chloride in a community-dwelling population of participants with overactive bladder: a one-year study*. Int Urol Nephrol. 2002;34(1):43-
32. Durso SC, Sullivan GM, eds. *Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine*. 8th ed. New York: American Geriatrics Societ; 2013
33. *Incontinence in Women: NICE Guidelines*. http://www.nice.org.uk/nicemedia/live/14271/65143/65143.pdf National Institute for Health and Clinical Excellence (NICE) clinical guideline 171; September 2013
34. Herbison GP, Dean N. *Weighted vaginal cones for urinary incontinence*. Cochrane Database Syst Rev. 2013 Jul 8;7:CD002114. doi: 10.1002/14651858.CD002114.pub2. Review. PubMed PMID: 23836411.
35. Wang Y, Zhishun L, Peng W, Zhao J, Liu B. *Acupuncture for stress urinary incontinence in adults*. Cochrane Database Syst Rev. 2013 Jul 1;7:CD009408. doi: 10.1002/14651858.CD009408.pub2. Review. PubMed PMID: 23818069.
36. *Urinary Incontinence: The management of urinary incontinence in women*. www.nice.org.uk/nicemedia/pdf/CG40fullguideline.pdf National Institute for Health and Clinical Excellence (NICE) clinical guideline 40; October 2006:1-14
37. Bettez M, Tu LM, Carlson K, Corcos J, Gajewski J, Jolivet M, Bailly G. *2012 Update: Guidelines for Adult Urinary Incontinence Collaborative Consensus Document for the Canadian Urological Association*. Can Urol Assoc J 2012;6(5):354-63. http://dx.doi.org/10.5489/cuaj.12248
38. Rai BP, Cody JD, Alhasso A, Stewart L. *Anticholinergic drugs versus non-drug active therapies for non-neurogenic overactive bladder syndrome in adults*. Cochrane Database of Systematic Reviews 2012, Issue 12. Art. No.: CD003193. DOI: 10.1002/14651858.CD003193.pub4.
39. Angioli R, Montera R, Plotti F, et al. *Success rates, quality of life, and feasibility of sacral nerve stimulation in elderly patients: One-year followup*. Int Urogeynecol J 2013;24:789-94.

40. Moga DC, Carnahan RM, Lund BC, Pendergast JF, Wallace RB, Torner JC, Li Y, Chrischilles EA. *Risks and benefits of bladder antimuscarinics among elderly residents of Veterans Affairs Community Living Centers*. J Am Med Dir Assoc. 2013 Oct;14(10):749-60. doi: 10.1016/j.jamda.2013.03.008.
41. Nabi G, Cody JD, Ellis G, Herbison P, Hay-Smith J. *Anticholinergic drugs versus placebo for overactive bladder syndrome in adults*. Cochrane Database Syst Rev. 2006 Oct 18;(4):CD003781.
42. Robinson D, Cardozo L. *Antimuscarinic drugs to treat overactive bladder*. BMJ. 2012 Mar 27;344:e2130.
43. Madhuvrata P,Cody JD, EllisG,HerbisonGP, Hay-Smith EJC. *Which anticholinergic drug for overactive bladder symptoms in adults*. Cochrane Database of Systematic Reviews 2012, Issue 1. Art. No.: CD005429. DOI: 10.1002/14651858.CD005429.pub2.
44. Siegler EL et al. *Treatment of urinary incontinence with anticholinergics in patients taking cholinesterase inhibitors for dementia*. Clin Pharmacol Ther 2004;75:484-8.
45. Edwards KR et al. *Risk of delirium with concomitant use of tolterodine and acetylcholinesterase inhibitors*. Editorial Letter. JAGS 2002;50:1165-1166.
46. Donnellan, CA et al. *Oxybutynin and cognitive dysfunction*. BMJ 1997;315:1363-1364.
47. Kay G, Crook T, Rekeda L, Lima R, Ebinger U, et al. *Differential effects of the antimuscarinic agents darifenacin and oxybutynin ER on memory in older subjects*. EurUrol 2006;50(2):317-26.
48. Wagg A, Khullar V, Marschall-Kehrel D, Mechel M, Oelke M, Darekar A, et al. *Flexible-dose fesoterodine in elderly adults with overactive bladder: results of the randomized, double-blind, placebo-controlled study of fesoterodine in an aging population trial (**SOFIA**)*. J Am Geriatr Soc. 2013;61:185-193.
49. Wagg A, Khullar V, Mechel M, Oelke M, Darekar A, and Bitoun C. *Long-term safety, tolerability and efficacy of flexible-dose fesoterodine in elderly patients with overactive bladder: open-label extension of the **SOFIA** trial*. Neurourol. Urodynam. 2014;33:106-14.
50. RxFiles *URINARY INCONTINENCE: Drug Comparison Chart*. RxFiles Drug Comparison Chart. Accessed 16 December 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/Cht-urinary-incontinence.pdf
51. Siegler EL et al. *Treatment of urinary incontinence with anticholinergics in patients taking cholinesterase inhibitors for dementia*. Clin Pharmacol Ther 2004;75:484-8.
52. Edwards KR et al. *Risk of delirium with concomitant use of tolterodine and acetylcholinesterase inhibitors*. Editorial Letter. JAGS 2002;50:1165-1166.
53. Donnellan CA et al. *Oxybutynin and cognitive dysfunction*. BMJ 1997;315:1363-1364.
54. Cui Y, Zong H, Yang C, Yan H, Zhang Y. *The efficacy and safety of mirabegron in treating OAB: a systematic review and meta-analysis of phase III trials*. Int Urol Nephrol. 2014 Jan;46(1):275-84.
55. Wagg A, Cardozo L, Nitti VW, Castro-Diaz D, Auerbach S, Blauwet MB, Siddiqui E. *The efficacy and tolerability of the β3-adrenoceptor agonist mirabegron for the treatment of symptoms of overactive bladder in older patients*. Age Ageing. 2014 Sep;43(5):666-75.
56. Gibson W, MacDiarmid S, Huang M, Siddiqui, E, Stolzel M, Choudhury N et al. *Treating overactive bladder in older patients with a combination of mirabegron and solifenacin: A Prespecified Analysis from the **BESIDE** Study*. European Urology Focus. 2017;3(6):629-38.
57. Kelleher C, Hakimi Z, Zur R, Siddiqui E, Maan K, Aballea S, et al. *Efficacy and Tolerability of Mirabegron Compared with antimuscarinic monotherapy or combination therapies for overactive bladder: A systematic review and network meta-analysis*. European Urology 2018;74:324-333.
58. Kim S, Liu S, Tse V. *Management of Urinary Incontinence in Adults*. Aust Prescriber. 2014; 34:10-3
59. Haueusler G et al. *Drug therapy of urinary urge incontinence: A systematic review*. Obstet Gynecol 2002;100:1003-16.
60. Scottish Intercollegiate Guidelines Network. *Management of urinary incontinence in primary care*. 2004;December. www.sign.ac.uk/pdf/sign79.pdf
61. Edwards, KR et al. *Risk of delirium with concomitant use of tolterodine and acetylcholinesterase inhibitors*. Editorial Letter. JAGS 2002;50:1165-1166.
62. Steers WD, Herschorn S, Kreder KJ, et al. *Duloxetine OAB Study Group. Duloxetine compared with placebo for treating women with symptoms of overactive bladder*. BJU Int. 2007 Aug;100(2):337-45. Epub 2007 May 19.

63. Ghoniem GM, Van Leeuwen JS, et al. Duloxetine/Pelvic Floor Muscle Training Clinical Trial Group. *A randomized controlled trial of duloxetine alone, pelvic floor muscle training alone, combined treatment and no active treatment in women with stress urinary incontinence*. J Urol. 2005 May;173(5):1647-53.
64. van Kerrebroeck P, Abrams P, Lange R, et al. *Duloxetine Urinary Incontinence Study Group. Duloxetine versus placebo in the treatment of European and Canadian women with stress urinary incontinence*. BJOG. 2004 Mar;111(3):249-57.
65. Millard RJ, Moore K, Rencken R, et al. Duloxetine UI Study Group. *Duloxetine vs placebo in the treatment of stress urinary incontinence: a four-continent randomized clinical trial*. BJU Int. 2004 Feb;93(3):311-8.
66. Norton PA, Zinner NR, Yalcin I, Bump RC; *Duloxetine Urinary Incontinence Study Group. Duloxetine versus placebo in the treatment of stress urinary incontinence*. Am J Obstet Gynecol. 2002 Jul;187(1):40-8.
67. Dmochowski RR, Miklos JR, Norton PA, et al. *Duloxetine Urinary Incontinence Study Group. Duloxetine versus placebo for the treatment of North American women with stress urinary incontinence*. J Urol. 2003 Oct;170(4 Pt 1):1259-63.
68. Oelke M, Bachmann A, Descazeaud A, Emberton M, Gravas S, Michel MC, N'dow J, Nordling J, de la Rosette JJ; European Association of Urology. *EAU guidelines on the treatment and follow-up of non-neurogenic male lower urinary tract symptoms including benign prostatic obstruction*. Eur Urol. 2013 Jul;64(1):118-40. doi:10.1016/j.eururo.2013.03.004.
69. McVary K, Roehrborn C, Avins A, et al. Update on AUA guideline on the management of benign prostatic hyperplasia. J Urol. 2011. 185(5):1793-803. doi: 10.1016/j.juro.2011.01.074.
70. Gratzke C, Bachmann A, Descazeaud A, et al. EAU Guidelines on the assessment of non-neurogenic *male lower urinary tract symptoms (LUTS), including benign prostatic obstruction*. Eur Urol. 2015;67(6):1099-1109. doi: 10.1016/j.eururo.2014.12.038.
71. Burgio KL, Goode PS, Johnson TM, Hammontree L, Ouslander JG, Markland AD, Colli J, Vaughan CP, Redden DT. *Behavioral versus drug treatment for overactive bladder in men: the Male Overactive Bladder Treatment in Veterans (**MOTIVE**) Trial*. J Am Geriatr Soc. 2011 Dec;59(12):2209-16.
72. Belayneh M, Korownyk C. *Treatment of lower urinary tract symptoms in benign prostatic hypertrophy with alpha blockers*. Canadian Fam Physician. 2016;62:e523.
73. Norman, Richard W. *Genitourinary Disorders: Lower Urinary Tract Symptoms and Benign Prostatic Hyperplasia*. Ed. Jean Gray. 6th ed. Ottawa: Canadian Pharmacists Association, 2011. Accessed 9 Aug 2012 at http://www.e-therapeutics.ca/tc.showChapter.action?documentId=c0050#c0050n00017
74. Wilt TJ, Mac Donald R, Rutks I. *Tamsulosin for benign prostatic hyperplasia*. Cochrane Database Syst Rev. 2003;(1):CD002081.
75. Yuan J, Mao C, Wong S, Yang Z, Fu X, Dai X, et al. *Comparative effectiveness and safety of monodrug therapies for lower urinary tract symptoms associated with benign prostatic hyperplasia: a network meta-analysis*. Medicine (Baltimore) 2015;94(27):e974.
76. Enright J, Karacal H, Tsai L. *Floppy iris syndrome and cataract surgery*. Curr Opin Ophthalmol 2017;28:29-34.
77. Welk B, McArthur E, Fraser L, Hayward J, Dixon S, Hwang Y et al. *The risk of fall and fracture with the initiation of a prostate-selective alpha antagonist: a population-based cohort study*. BMJ 2015;351:h5398.
78. Roehrborn CG et al. *Effects of tadalafil once daily on maximum urinary flow rate in men with lower urinary tract symptoms suggestive of benign prostatic hyperplasia*. J Urol 2014 Apr; 191:1045.
79. Miller MS. *Role of phosphodiesterase type 5 inhibitors for lower urinary tract symptoms*. Ann Pharmacother. 2013 Feb;47(2):278-83. doi: 10.1345/aph.1R528. Epub 2013 Feb 5. Review. PubMed PMID: 23386068.
80. McConnell JD, Roehrborn CG, Bautista OM, et al. *The long-term effect of doxazosin, finasteride, and combination therapy on the clinical progression of benign prostatic hyperplasia*. N Engl J Med 2003;349:2387-98.

81. Roehrborn CG, Siami P, Barkin J, Damião R, Major-Walker K, Nandy I, Morrill BB, Gagnier RP, Montorsi F; CombAT Study Group. *The effects of combination therapy with dutasteride and tamsulosin on clinical outcomes in men with symptomatic benign prostatic hyperplasia: 4-year results from the **CombAT** study*. Eur Urol. 2010 Jan;57(1):123-31. doi: 10.1016/j.eururo.2009.09.035. Epub 2009 Sep 19. Erratum in: Eur Urol. 2010 Nov;58(5):801. PubMed PMID: 19825505
82. Fullhase C, Chapple C, Cornu JN, et al. *Systematic review of combination drug therapy for non-neurogenic male lower urinary tract symptoms*. Eur Urol. 2013 Aug;64(2):228-43
83. Tracklind J, Macdonald R, Rutks I, Stanke JU, Wilt TJ. *Serenoa repens for benign prostatic hyperplasia*. Cochrane Database Syst Rev. 2012 Dec 12;12:CD001423. doi: 10.1002/14651858.CD001423.pub3.
84. Barry MJ, Meleth S, Lee JY, Kreder KJ, Avins AL, Nickel JC, Roehrborn CG, Crawford ED, Foster HE Jr, Kaplan SA, McCullough A, Andriole GL, Naslund MJ, Williams OD, Kusek JW, Meyers CM, Betz JM, Cantor A, McVary KT; Complementary and Alternative Medicine for Urological Symptoms (**CAMUS**) Study Group. *Effect of increasing doses of saw palmetto extract on lower urinary tract symptoms: a randomized trial*. JAMA. 2011 Sep 28;306(12):1344-51. doi: 10.1001/jama.2011.1364.
85. RxFiles *URINARY INCONTINENCE: Drug Comparison Chart*. RxFiles Drug Comparison Chart. Accessed 16 December 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/members/Cht-urinary-incontinence.pdf

Additional References:

- Abrams P, Kelleher C, Staskin D, et al. *Combination Treatment with Mirabegron and Solifenacin in Patients with Overactive Bladder: Efficacy and Safety Results from a Randomised, Double-blind, Dose-ranging, Phase 2 Study (Symphony)*. Eur Urol. 2014 Feb 19.
- Casabé A, Roehrborn CG, et al. *Efficacy and safety of the coadministration of tadalafil once daily with finasteride for 6 months in men with lower urinary tract symptoms and prostatic enlargement secondary to benign prostatic hyperplasia*. J Urol.2014 Mar.
- Elterman DS, Kaplan SA. *Lower urinary tract symptoms in a 66-year-old man*. CMAJ. 2014 Apr 15;186(7):525-7.
- Gravas S, Bachmann A, Descazeaud A, et al. *Guidelines on the management of non-neurogenic male lower urinary tract symptoms (LUTS), including benign prostatic obstruction (BPO)*. Arnhem (The Netherlands): European Association of Urology (EAU); 2014 Apr.
- Hollingsworth JM, Wilt TJ. *Lower urinary tract symptoms in men*. BMJ. 2014 Aug 14;349:g4474.
- Kim S, Liu S, Tse V. *Management of urinary incontinence in adults*. Australian Prescriber 37.1. 2014.
- Myers DL. *Female Mixed Urinary Incontinence-A Clinical Review*. JAMA. 2014;311(19):2007-2014. doi:10.1001/jama.2014.4299
- Rees J, Bultitude M, Challacombe B. *The management of lower urinary tract symptoms in men*. BMJ. 2014 Jun 24;348:g3861.

GENITOURINARY

Urinary Tract Infections in Older Adults

1. Colgan R, Nicolle LE, McGlone A, Hooton TM. *Asymptomatic Bacteriuria in Adults*. Am Fam Physician. 2006 Sep; 15;74(6):985-990.
2. Nicolle L, Bradley S, Colgan R, Rice J, Schaeffer A, Hooton T. *Infectious Diseases Society of America Guidelines for the Diagnosis and Treatment of Asymptomatic Bacteriuria in Adults*. Clinical Infectious Disease. 2005:40:643-54.
3. Yoshikawa, T, Norman D. *Geriatric Infectious Disease: Current concepts on diagnosis and management*. J Am Geriatr Soc 2017;65:631-41.
4. Trautner BW, Darouiche RO. *Role of biofilm in catheter-associated urinary tract infection*. Am J Infect Control. 2004 May;32(3):177-83. Review. PubMed PMID: 15153930; PubMed Central PMCID: PMC2963581.
5. Trautner BW, Darouiche RO. *Role of biofilm in catheter-associated urinary tract infection*. Am J Infect Control. 2004 May;32(3):177-83. Review. PubMed PMID: 15153930; PubMed Central PMCID: PMC2963581.
6. Anti-infective Review Panel. ***Anti-infective guidelines for community-acquired infections***. Toronto: MUMS Guideline Clearinghouse; 2012
7. Blondel-Hill E, Fryters S. ***Bugs & Drugs****: An antimicrobial/infectious disease reference*. Alberta Health Services, Alberta Health, British Columbia of Health Pharmaceutical Services Division; 2012.
8. Regier L. *Urinary Tract Infections: Adult Treatment Options*. **RxFiles** 9th edition. Saskatoon SK; 2012.
9. **Saskatchewan Infection Prevention & Control Program**. *Guidelines for the Prevention & Treatment of Urinary Tract Infections in Continuing Care Settings*. Government of Saskatchewan; April 2013.
10. Gupta K, Hooton TM, Naber KG et al; **Infectious Diseases Society of America**; European Society for Microbiology and Infectious Diseases. *International clinical practice guidelines for the treatment of acute uncomplicated cystitis and pyelonephritis in women: A 2010 update by the Infectious Diseases Society of America and the European Society for Microbiology and Infectious Diseases*. Clin Infect Dis. 2011 Mar 1;52(5):e103-20.
11. Lutters M, Vogt-Ferrier NB. *Antibiotic duration for treating uncomplicated, symptomatic lower urinary tract infections in elderly women*. Cochrane Database Syst Rev. 2008 Jul 16;(3):CD001535.
12. Vogel T, Verreault R, Gourdeau M et al. *Optimal duration of antibiotic therapy for uncomplicated urinary tract infection in older women: a double-blind randomized controlled trial*. CMAJ. 2004 Feb 17;170(4):469-73.
13. Matthews SJ, Lancaster JW. *Urinary tract infections in the elderly population*. Am J Geriatr Pharmacother. 2011 Oct;9(5):286-309.
14. Perrotta C, Aznar M, Mejia R, Albert X, Ng CW. *Oestrogens for preventing recurrent urinary tract infection in postmenopausal women*. Cochrane Database Syst Rev. 2008 Apr 16;(2):CD005131.
15. Epp A, Larochelle A. *No. 250 - Recurrent Urinary Tract Infection*. J Obstet Gynaecol Can 2017;39(10):e422-e431
16. Grabe M, Bartoletti R, Bjerklund Johansen TE, et al. *Guidelines on Urological Infections*. European Assocaiton of Urology (EAU), 2015. Accessed August 18, 2018 https://uroweb.org/wp-content/uploads/19-Urological-infections_LR2.pdf
17. Allan M, Nicolle L. *Cranberry juice/tablets for the prevention of urinary tract infection: naturally the best?* Tools for Practice, March 4, 2013.
18. Jepson RG, Williams G, Craig JC. *Cranberries for preventing urinary tract infections*. Cochrane Database Syst Rev. 2012 Oct 17;10:CD001321. doi: 10.1002/14651858.CD001321.pub5. Review. PubMed PMID: 23076891.
19. Wang CH, Fang CC, Chen NC, Liu SS, Yu PH, Wu TY, Chen WT, Lee CC, Chen SC. *Cranberry-containing products for prevention of urinary tract infections in susceptible populations: a systematic review and meta-analysis of randomized controlled trials*. Arch Intern Med. 2012 Jul 9;172(13):988-96. doi: 10.1001/archinternmed.2012.3004. Review. PubMed PMID: 22777630.
20. Allan M, Nicolle L. *Cranberry juice/tablets for the prevention of urinary tract infection: naturally the best?* Tools for Practice, March 4, 2013.
21. Rapid Reponse Report. Summary with critical appraisal. *Cranberry Products or Topical Estrogen-Based therapy for the prevention of urinary tract infections: A review of clinical effectiveness and guidelines*. 2016;October 27. CADTH.ca

22. Jepson RG, Williams G, Craig JC. *Cranberries for preventing urinary tract infections*. Cochrane Database Syst Rev. 2012 Oct 17;10:CD001321. doi: 10.1002/14651858.CD001321.pub5. Review. PubMed PMID: 23076891.
23. Wang CH, Fang CC, Chen NC, Liu SS, Yu PH, Wu TY, Chen WT, Lee CC, Chen SC. *Cranberry-containing products for prevention of urinary tract infections in susceptible populations: a systematic review and meta-analysis of randomized controlled trials*. Arch Intern Med. 2012 Jul 9;172(13):988-96. doi: 10.1001/archinternmed.2012.3004. Review. PubMed PMID: 22777630.
24. Wang CH, Fang CC, Chen NC, Liu SS, Yu PH, Wu TY, Chen WT, Lee CC, Chen SC. *Cranberry-containing products for prevention of urinary tract infections in susceptible populations: a systematic review and meta-analysis of randomized controlled trials*. Arch Intern Med. 2012 Jul 9;172(13):988-96. doi: 10.1001/archinternmed.2012.3004. Review. PubMed PMID: 22777630.
25. Allan M, Nicolle L. *Cranberry juice/tablets for the prevention of urinary tract infection: naturally the best?* Tools for Practice, March 4, 2013.
26. Perrotta C, Aznar M, Mejia R, Albert X, Ng CW. *Oestrogens for preventing recurrent urinary tract infection in postmenopausal women*. Cochrane Database Syst Rev. 2008 Apr 16;(2):CD005131.
27. Grin PM, Kowalewska PM, Alhazzan W, Fox-Robichaud AE. *Lactobacillus for preventing recurrent urinary tract infections in women: meta-analysis*. Can J Urol. 2013 Feb;20(1):6607-14. Review. PubMed PMID: 23433130.
28. Toh S, Boswell-Ruys C, Lee B, Simpson J, Clezy K. *Probiotics for preventing urinary tract infection in people with neuropathic bladder*. Cochrane Database of Systematic Reviews. 2017, Issue 9. Art. No.: CD010723.DOI: 10.1002/14651858.CD010723.pub2
29. Singh N, Gandhi S, McArthur E, Moist L, Jain AK, Liu AR, Sood MM, Garg AX. *Kidney function and the use of nitrofurantoin to treat urinary tract infections in older women*. CMAJ. 2015 Jun 16;187(9):648-56. doi: 10.1503/cmaj.150067. Epub 2015 Apr 27. PubMed PMID: 25918178; PubMed Central PMCID: PMC4467927.
30. Gupta K, Hooton TM, Naber KG et al; **Infectious Diseases Society of America**; European Society for Microbiology and Infectious Diseases. *International clinical practice guidelines for the treatment of acute uncomplicated cystitis and pyelonephritis in women: A 2010 update by the Infectious Diseases Society of America and the European Society for Microbiology and Infectious Diseases*. Clin Infect Dis. 2011 Mar 1;52(5):e103-20.
31. Lutters M, Vogt-Ferrier NB. *Antibiotic duration for treating uncomplicated, symptomatic lower urinary tract infections in elderly women*. Cochrane Database Syst Rev. 2008 Jul 16;(3):CD001535.
32. McIsaac W, Moineddin R, Meaney C et al. *Antibiotic-resistant Escherichia coli in women with acute cystitis in Canada*. Can J Infect Dis Med Microbio Autumn 2013; 24(3):143-149.

Additional References:

- PL Detail-Document, *Potentially Harmful Drugs in the Elderly: Beers List*. Pharmacist's Letter/Prescriber's Letter. June 2012.
- PL Detail-Document, *STARTing and STOPPing Medications in the Elderly*. Pharmacist's Letter/Prescriber's Letter. September 2011.
- Toward Optimized Practice. *Guideline for the Diagnosis & Management of Urinary Tract Infections in Long-Term Care*. 2010.
- KFL&A Public Health. *Antibiotic Stewardship: Treatment Guidelines for Long-term Care Facilities*; December 2012.
- Pharmacists Letter. Detail-Document: *Choosing a UTI Antibiotic for Elderly Patients*. December 2011.
- Ferraro G, Ambrosi G, Bucci L et al. *Fosfomycin trometamol versus norfloxacin in the treatment of uncomplicated lower urinary tract infections of the elderly*. Chemotherapy. 1990; 36 Suppl 1:46-9.
- Albert X, Huertas I, Pereiró II, Sanfélix J, Gosalbes V, Perrota C. *Antibiotics for preventing recurrent urinary tract infection in non-pregnant women*. Cochrane Database Syst Rev. 2004;(3):CD001209.

MUSCULOSKELETAL & CONNECTIVE TISSUE

Preventing Falls in Older Adults

1. Swift C, Iliffe S. *Assessment and prevention of falls in older people – concise guidance*. Clin Medicine. 2014;14(6):658-62.
2. Kwan, E, Straus, SE. *Assessment and Management of Falls in Older People*. CMAJ. 2014 Nov;186(16):610-621.
3. Kendrick D, Kumar A, Carpenter H, Zijlstra GAR, Skelton DA, Cook JR, Stevens Z, Belcher CM, Haworth D, Gawler SJ, Gage H, Masud T, Bowling A, Pearl M, Morris RW, Iliffe S, Delbaere K. *Exercise for reducing fear of falling in older people living in the community*. Cochrane Database of Systematic Reviews 2014, Issue 11. Art. No.: CD009848. DOI: 10.1002/14651858.CD009848.pub2.
4. Panel on Prevention of Falls in Older Persons. *Summary of the Updated American Geriatrics Society/British Geriatrics Society Clinical Practice Guideline for Prevention of Falls in Older Persons*. J Am Geriatr Soc. 2011;59:148-157
5. American Geriatrics Society. *Geriatrics Evaluation and Management Tools: Falls*. Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine. New York, NY: 2013.
6. Hill KD, Wee R. *Psychotropic drug-induced falls in older people: a review of interventions aimed at reducing the problem*. Drugs Aging. 2012 Jan 1;29(1):15-30.doi: 10.2165/11598420-000000000-00000. Review.
7. Kwan, E, Straus, SE. *Assessment and Management of Falls in Older People*. CMAJ. 2014 Nov;186(16):610-621.
8. Panel on Prevention of Falls in Older Persons, American Geriatrics Society and British Geriatrics Society. *Summary of the Updated American Geriatrics Society/British Geriatrics Society clinical practice guideline for prevention of falls in older persons*. J Am Geriatr Soc. 2011 Jan;59(1):148-57. doi:10.1111/j.1532-5415.2010.03234.x.
9. Drug Information Service. *Preventing Falls in the Elderly: What Primary Care Clinicians can do to Reduce Injury and Death*. Alosa Foundation. 2014.
10. Panel on Prevention of Falls in Older Persons. *Summary of the Updated American Geriatrics Society/British Geriatrics Society Clinical Practice Guideline for Prevention of Falls in Older Persons*. J Am Geriatr Soc. 2011;59:148-157.
11. American Geriatrics Society. *Geriatrics Evaluation and Management Tools: Falls*. Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine. New York, NY: 2013.
12. Hartikainen S, Lönnroos E, Louhivuori K. *Medication as a risk factor for falls: critical systematic review*. J Gerontol A Biol Sci Med Sci. 2007 Oct;62(10):1172-81. Review. PubMed PMID: 17921433.
13. Panel on Prevention of Falls in Older Persons. *Summary of the Updated American Geriatrics Society/British Geriatrics Society Clinical Practice Guideline for Prevention of Falls in Older Persons*. J Am Geriatr Soc. 2011;59:148-157.
14. Hill KD, Wee R. *Psychotropic drug-induced falls in older people: a review of interventions aimed at reducing the problem*. Drugs Aging. 2012 Jan 1;29(1):15-30.doi: 10.2165/11598420-000000000-00000. Review.
15. Panel on Prevention of Falls in Older Persons, American Geriatrics Society and British Geriatrics Society. *Summary of the Updated American Geriatrics Society/British Geriatrics Society clinical practice guideline for prevention of falls in older persons*. J Am Geriatr Soc. 2011 Jan;59(1):148-57. doi:10.1111/j.1532-5415.2010.03234.x.
16. Cameron ID, Gillespie LD, Robertson MC, Murray GR, Hill KD, Cumming RG, Kerse N. *Interventions for preventing falls in older people in care facilities and hospitals*. Cochrane Database of Systematic Reviews 2012, Issue 12. Art. No.: CD005465. DOI: 10.1002/14651858.CD005465.pub3.
17. Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, Lamb SE. *Interventions for preventing falls in older people living in the community*. Cochrane Database of Systematic Reviews 2012, Issue 9. Art. No.: CD007146. DOI: 10.1002/14651858.CD007146.pub3.
18. Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, Lamb SE. *Interventions for preventing falls in older people living in the community*. Cochrane Database of Systematic Reviews 2012, Issue 9. Art. No.: CD007146. DOI: 10.1002/14651858.CD007146.pub3.

19. Mentes J. *Oral hydration in older adults: greater awareness is needed in preventing, recognizing, and treating dehydration*. Am J Nurs. 2006 Jun;106(6):40-9; quiz 50. Review. PubMed PMID: 16728843
20. Santesso N, Carrasco-Labra A, Brignardello-Petersen R. *Hip protectors for preventing hip fractures in older people*. Cochrane Database of Systematic Reviews 2014, Issue 3. Art. No.: CD001255. DOI: 10.1002/14651858.CD001255.pub5.
21. CADTH. *Hip Protectors: A Review of the Comparitive Clinical and Cost-Effectiveness*. 11 Feb 2015.
22. Panel on Prevention of Falls in Older Persons, American Geriatrics Society and British Geriatrics Society. *Summary of the Updated American Geriatrics Society/British Geriatrics Society clinical practice guideline for prevention of falls in older persons*. J Am Geriatr Soc. 2011 Jan;59(1):148-57. doi:10.1111/j.1532-5415.2010.03234.x.
23. Fraser LA, Liu K, Naylor KL, Hwang YJ, Dixon SN, Shariff SZ, Garg AX. *Falls and fractures with atypical antipsychotic medication use: a population-based cohort study*. JAMA Intern Med. 2015 Mar;175(3):450-2. doi: 10.1001/jamainternmed.2014.6930. PubMed PMID: 25581312.
24. Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, Lamb SE. *Interventions for preventing falls in older people living in the community*. Cochrane Database of Systematic Reviews 2012, Issue 9. Art. No.: CD007146. DOI: 10.1002/14651858.CD007146.pub3.
25. Hill KD, Wee R. *Psychotropic drug-induced falls in older people: a review of interventions aimed at reducing the problem*. Drugs Aging. 2012 Jan 1;29(1):15-30.doi: 10.2165/11598420-000000000-00000. Review.
26. Hartikainen S, Lönnroos E, Louhivuori K. *Medication as a risk factor for falls: critical systematic review*. J Gerontol A Biol Sci Med Sci. 2007 Oct;62(10):1172-81. Review. PubMed PMID: 17921433.
27. American Geriatrics Society 2019 Beers Criteria Update Expert Panel. *American Geriatrics Society updated Beers Criteria for potentially inappropriate medication use in older adults*. J Am Geriatr Soc. 2019 Jan;00:1-21
28. Hill KD, Wee R. *Psychotropic drug-induced falls in older people: a review of interventions aimed at reducing the problem*. Drugs Aging. 2012 Jan 1;29(1):15-30.doi: 10.2165/11598420-000000000-00000. Review.
29. The 2015 Canadian Hypertension Education Program Recommendations www.hypertension.ca
30. Canadian Diabetes Association. Clinical Practice Guidelines. April 2013. http://guidelines.diabetes.ca
31. Independent Drug Information Service. *Preventing Falls in the Elderly: What Primary Care Clinicians can do to Reduce Injury and Death*. Alosa Foundation. 2014.
32. Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, Lamb SE. *Interventions for preventing falls in older people living in the community*. Cochrane Database of Systematic Reviews 2012, Issue 9. Art. No.: CD007146. DOI: 10.1002/14651858.CD007146.pub3.
33. Cameron ID, Gillespie LD, Robertson MC, Murray GR, Hill KD, Cumming RG, Kerse N. *Interventions for preventing falls in older people in care facilities and hospitals*. Cochrane Database of Systematic Reviews 2012, Issue 12. Art. No.: CD005465. DOI: 10.1002/14651858.CD005465.pub3.
34. Papaioannou A, Santesso N, Morin SN, Feldman S, Adachi JD, Crilly R, et al. *Appendix 1: supplementary materials, in Recommendations for preventing fracture in long-term care*. CMAJ 2015; 187(15).
35. American Geriatrics Society. *Geriatrics Evaluation and Management Tools: Falls*. Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine. New York, NY: 2013.
36. Uusi-Rasi K, Patil R, Karinkanta S, Kannus P, Tokola K, Lamberg-Allardt C, Sievänen H. *Exercise and vitamin D in fall prevention among older women: a randomized clinical trial*. JAMA Intern Med. 2015 May;175(5):703-11. doi: 10.1001/jamainternmed.2015.0225. PubMed PMID: 25799402.
37. Papaioannou A, Morin S, Cheung AM, Atkinson S, Brown JP, Feldman S, Hanley DA, Hodsman A, Jamal SA, Kaiser SM, Kvern B, Siminoski K, Leslie WD; Scientific Advisory Council of Osteoporosis Canada. *2010 clinical practice guidelines for the diagnosis and management of osteoporosis in Canada: summary*. CMAJ. 2010 Nov 23;182(17):1864-73. doi: 10.1503/cmaj.100771
38. Zarraga IG, Kron J. *Oral anticoagulation in elderly adults with atrial fibrillation: integrating new options with old concepts*. J Am Geriatr Soc. 2013 Jan;61(1):143-50. doi: 10.1111/jgs.12042. Epub 2012 Dec 18. Review.

39. Gage BF, Birman-Deych E, Kerzner R, Radford MJ, Nilasena DS, Rich MW. *Incidence of intracranial hemorrhage in patients with atrial fibrillation who are prone to fall*. Am J Med. 2005 Jun;118(6):612-7. PubMed PMID: 15922692.
40. Hutchison, LC, Sleeper, RB. *Fundamentals of Geriatric Pharmacotherapy: An Evidence Based Approach*. American Society of Health System Pharmacists. Bethesda, Maryland. 2010.
41. PL Detail-Document, *Considerations for Anticoagulant Use in Elderly A. Fib Patients*. Pharmacist's Letter/Prescriber's Letter. August 2013.
42. American Geriatrics Society 2019 Beers Criteria Update Expert Panel. *American Geriatrics Society updated Beers Criteria for potentially inappropriate medication use in older adults*. J Am Geriatr Soc. 2019 Jan;00:1-21
43. Hartikainen S, Lönnroos E, Louhivuori K. *Medication as a risk factor for falls: critical systematic review*. J Gerontol A Biol Sci Med Sci. 2007 Oct;62(10):1172-81. Review. PubMed PMID: 17921433.
44. Sultana J, Spina E, Trifirò G. *Antidepressant use in the elderly: the role of pharmacodynamics and pharmacokinetics in drug safety*. Expert Opin Drug Metab Toxicol. 2015 Mar 3:1-10. [Epub ahead of print] PubMed PMID: 25736834.
45. Hill KD, Wee R. *Psychotropic drug-induced falls in older people: a review of interventions aimed at reducing the problem*. Drugs Aging. 2012 Jan 1;29(1):15-30.doi: 10.2165/11598420-000000000-00000. Review.
46. Hill KD, Wee R. *Psychotropic drug-induced falls in older people: a review of interventions aimed at reducing the problem*. Drugs Aging. 2012 Jan 1;29(1):15-30.doi: 10.2165/11598420-000000000-00000. Review.
47. American Geriatrics Society 2019 Beers Criteria Update Expert Panel. *American Geriatrics Society updated Beers Criteria for potentially inappropriate medication use in older adults*. J Am Geriatr Soc. 2019 Jan;00:1-21

Additional References:

- Welk B, McArthur E, Fraser LA, Hayward J, Dixon S, Hwang YJ, Ordon M. *The risk of fall and fracture with the initiation of a prostate-selective α antagonist: a population-based cohort study*. BMJ. 2015 Oct 26;351:h5398. doi: 10.1136/bmj.h5398. PubMed PMID: 26502947; PubMed Central PMCID: PMC4620650.

MUSCULOSKELETAL & CONNECTIVE TISSUE

Osteoporosis in Older Adults

1. Papaioannou A, Morin S, Cheung A, et al for the Scientific Advisory Council of Osteoporosis Canada. *2010 clinical practice guidelines for the diagnosis and management of osteoporosis in Canada: summary*. CMAJ November 23, 2010 182:1864-1873; published ahead of print October 12, 2010, doi:10.1503/cmaj.100771, http://www.cmaj.ca/content/182/17/1864.full.pdf+html, accessed December 27, 2013.
2. Papaioannou A, Santesso N, Morin S, Feldman S, Adachi J, Crilly R, Giangregorio L, et al. *Recommendations for preventing fracture in long-term care*. CMAJ 2015;187(15): 1135-44.
3. Qaseem A, Forciea M, McLean R, Denberg T. *Treatment of low bone density or osteoporosis to prevent fractures in men and women: A clinical practice guidelines update from the American College of Physicians*. Ann Intern Med 2017;166:818-839.
4. Siminoski K, Warshawski RS, Jen H, Lee K. *The accuracy of historical height loss for the detection of vertebral fractures in postmenopausal women*. Osteoporos Int. 2006 Feb;17(2):290-6.
5. Brown A, Coyle D, Cimon K, Farrah K. *Hip Protectors in Long-Term Care: A Clinical and Cost-Effectiveness Review and Primary Economic Evaluation*. Ottawa: Canadian Agency for Drugs and Technologies in Health; 2008.
6. Health Canada – *Vitamin D and Calcium: Updated Dietary Reference Intakes*. https://www.canada.ca/en/health-canada/services/food-nutrition/healthy-eating/vitamins-minerals/vitamin-calcium-updated-dietary-reference-intakes-nutrition.html accessed February 12, 2019
7. Hanley David A, Cranney Ann, Jones, Glenville, et al. *Vitamin D in adult health and disease: a review and guideline statement from Osteoporosis Canada – summary*. CMAJ 2010 0: cmaj.091062
8. Glendenning P, Chew GT, Seymour HM, et al. *Serum 25-hydroxyvitamin D levels in vitamin D-insufficient hip fracture patients after supplementation with ergocalciferol and cholecalciferol*. Bone. 2009 Nov;45(5):870-5. Doi: 10.1016/j.bone.2009.07.015. Epub 2009 Jul 23.
9. Sanders K, Stuart A, Williamson E, et al. *Annual High-Dose Oral Vitamin D and Falls and Fractures in Older Women. A Randomized Controlled Trial*. JAMA 2010;303(18):1815-22. Vital D Study.
10. Hanley D, Cranney A, Jones G, et al. *Vitamin D in adult health and disease: a review and guideline statement from Osteoporosis Canada*. CMAJ 2010;182(12):E610-8. DOI:10.1503/cmaj.080663.
11. Hanley D, Cranney A, Jones G, et al. *Vitamin D in adult health and disease: a review and guideline statement from Osteoporosis Canada*. CMAJ 2010;182(12):E610-8. DOI:10.1503/cmaj.080663.
12. Hanley D, Cranney A, Jones G, et al. *Vitamin D in adult health and disease: a review and guideline statement from Osteoporosis Canada*. CMAJ 2010;182(12):E610-8. DOI:10.1503/cmaj.080663.
13. Osteoporosis Canada. *The reported potential link between calcium supplement intake and vascular events*. Updated January 23, 2013. http://www.osteoporosis.ca/wp-content/uploads/Calcium-Intake-Statement-Jan-2013.pdf Accessed January 2, 2014.
14. Committee to Review Dietary Reference Intakes for Vitamin D and Calcium, Food and Nutrition Board, Institute of Medicine. *Dietary Reference Intakes for Calcium and Vitamin D*. Washington, DC: National Academy Press, 2010.
15. Avenell A, Gillespie WJ, Gillespie LD, O'Connell D. *Vitamin D and vitamin D analogues for preventing fractures associated with involutional and post-menopausal osteoporosis*. In: Avenell A, with The Cochrane Collaboration, eds. Cochrane Database of Systematic Reviews. 2011.
16. TheNNT.com. *Vitamin D for Preventing Fractures (Elderly, Institutionalized Adults)*. http://www.thennt.com/nnt/vitamin-d-for-fracture-prevention-elderly-nursing-home/ accessed January 2, 2014.
17. Bolland MJ, Avenell A, Baron JA, Grey A, MacLennan GS, Gamble GD, Reid IR. *Effect of calcium supplements on risk of myocardial infarction and cardiovascular events: meta-analysis*. BMJ 2010; 341: 10.1136/bmj.c3691.

18. Osteoporosis Canada. *The reported potential link between calcium supplement intake and vascular events. Information for the patients*. Updated January 23, 2013. http://www.osteoporosis.ca/wp-content/uploads/Calcium-is-Good-Are-Calcium-Supplements-Bad-January-2013.pdf Accessed January 2, 2014.
19. Greenspan SL, Schneider DL, McClung MR, et al. *Alendronate improves bone mineral density in elderly women with osteoporosis residing in long-term care facilities. A randomized, double-blind, placebo-controlled trial*. Ann Intern Med 2002;136:742-6.
20. Duque G, Close J, de Jager J, et al. *Treatment for osteoporosis in Australian residential aged care facilities: consensus recommendations for fracture prevention*. MJA 2010; 193:173-9.
21. Langdahl BL, Rajzbaum, G, Jakob F, et al. *Reduction in fracture rate and back pain and increased quality of life in postmenopausal women treated with teriparatide: 18-month data from the European Forsteo Observational Study (EFOS)*. Calcif Tissue Int 2009;85:484-93.
22. Leder BZ, Tsai JN, Uihlein AV, Wallace PM, Lee H, Neer RM, Burnett-Bowie SM. *Denosumab and teriparatide transitions in postmenopausal osteoporosis (the DATA-Switch study): extension of a randomised controlled trial*. Lancet. 2015 Jul 2. pii: S0140-6736(15)61120-5. doi: 10.1016/S0140-6736(15)61120-5. [Epub ahead of print] PubMed PMID: 26144908.
23. Shane E, Burr D, Ebeling PR et al. *Atypical subtrochanteric and diaphyseal femoral fractures: report of a task force of the American Society for Bone and Mineral Research*. J Bone Miner Res 2010;25(11):2267-94.
24. Gomberg SJ, Wustrack RL, Napoli N et al. *Teriparatide, vitamin D, and calcium healed bilateral subtrochanteric stress fractures in a postmenopausal woman with a 13-year history of continuous alendronate therapy*. J Clin Endocrinol Metab 2011;96(6):1627-32.
25. Hanley DA. *Musculoskeletal Disorders: Osteoporosis*. E-therapeutics. August 2013, accessed January 3, 2014.
26. Ott SM. *What is the optimal duration of bisphosphonate therapy?* Cleve Clin J Med. 2011 Sep;78(9):619-30.
27. Diab DL, Watts NB. *Bisphosphonate drug holiday: who, when and how long*. Ther Adv Musculoskelet Dis. 2013 Jun;5(3):107-11.
28. Black DM, Schwartz AV, Ensrud KE et al. *Effects of continuing or stopping alendronate after 5 years of treatment: the Fracture Intervention Trial Long-term Extension (FLEX): a randomized trial*. JAMA 2006;296(24):2927-38.

MUSCULOSKELETAL & CONNECTIVE TISSUE

Pain Management in Older Adults

1. Michael G. DeGroote National Pain Centre, McMaster University. *The 2017 Canadian guideline for opioids for chronic non-cancer pain*. [cited Sept 5, 2017]. Available from: http://nationalpaincentre.mcmaster.ca/opioid/
2. Makris U, Abrams R, Gurland B, Reid M. *Management of Persistent pain in the older patient – A clinical review*. JAMA 2014;312(8):825-36.
3. Desbiens NA, Mueller-Rizner N, Connors AF Jr, Hamel MB, Wenger NS. *Pain in the oldest-old during hospitalization and up to one year later*. HELP Investigators. Hospitalized Elderly Longitudinal Project. J Am Geriatr Soc. 1997 Oct;45(10):1167-72.
4. Katz S, Ford A, Moskowitz R, et al. Studies of illness in the aged. *The index of ADL: A standardized measure of biological and psychological function*. 1963;185:914-9. https://consultgeri.org/try-this/general-assessment/issue-2.pdf
5. Lawton M, Brody E. *Assessment of older people: self-maintaining and instrumental activities of daily living*. 1969;9(3):179-86. https://consultgeri.org/try-this/general-assessment/issue-23.pdf
6. Dodds T, Martin D, Stolov W, et al. *A validation of the functional independence measurement and its performance among rehabilitation inpatients*. Arch Phys Med Regabil 1993;74:531-6. https://www.strokengine.ca/pdf/FIMappendixD.pdf
7. Mahoney F, Barthel D. *Functional evaluation: The Barthel Index*. MD State Med J. 1965;14:61-5 http://www.strokecenter.org/wp-content/uploads/2011/08/barthel.pdf
8. Busse J, et al. *The 2017 Canadian Guideline for Opioids for Chronic Non-Cancer Pain*. CMAJ. 2017. http://nationalpaincentre.mcmaster.ca/documents/Opioid%20GL%20for%20CMAJ_01may2017.pdf
9. Buss J, Wag L, Kamaleldin M et al. *Opioids for chronic noncancer pain. A systematic review and meta-analysis*. JAMA 2018;320(23):2448-60.
10. McNichol E, Midbari A, Eisenberg E. *Opioids for neuropathic pain*. Cochrane database of systematic reviews. 2013. Issue 8. Art. No.:CD006146.
11. Cooper T, Chen J, Wiffen P, et al. *Morphine for chronic neuropathic pain in adults*. Cochrane Database Syst Rev. 2017;May 22;5:CD011669.
12. Ballantyne JC, Mao J. *Opioid therapy for chronic pain*. N Engl J Med. 2003 Nov 13;349(20):1943-53
13. Solomon DH, Rassen JA, Glynn RJ, Lee J, Levin R, Schneeweiss S. *The comparative safety of analgesics in older adults with arthritis*. Arch Intern Med. 2010 Dec 13;170(22):1968-76. See RxFiles Trial Summary online at: http://www.rxfiles.ca/rxfiles/uploads/documents/Pain-Trial-Summary-Solomon-Elderly-Arthritis.pdf
14. *RxFiles Opioids for Chronic Non-Cancer Pain (CNCP) Management in the Elderly*. RxFiles Q&A. Accessed 01 Aug 2013 at http://www.rxfiles.ca/rxfiles/uploads/documents/Opioids-Pain-ELDERLY-QandA.pdf

NEUROLOGY & PSYCHIATRY

Anticholinergics: Reference List of Drugs with Anticholinergic Effects

1. Carnahan RM, Lund BC, Perry PJ, et al. *The Anticholinergic Drug Scale as a measure of drug-related anticholinergic burden: associations with serum anticholinergic activity*. J Clin Pharmacol. 2006 Dec;46(12):1481-6.
2. National Prescribing Service. *Examples of medications with anticholinergic activity*. January 2009. Available: http://www.brisbanesouth.com.au/content/Document/Resources/NPS/NPS%20Anticholinergic%20Medications%20200902.pdf
3. Chew ML, Mulsant BH, Pollock BG, et al. *Anticholinergic activity of 107 medications commonly used by older adults*. Am Geriatr Soc. 2008 Jul;56(7):1333-41.
4. Mintzer J, Burns A. *Anticholinergic side-effects of drugs in elderly people*. J R Soc Med. 2000 Sep;93(9):457-62.
5. Feinberg M. *The problems of anticholinergic adverse effects in older patients*. Drugs Aging. 1993 Jul-Aug;3(4):335-48.
6. Tune LE. *Anticholinergic effects of medication in elderly patients*. J Clin Psyc. 2001.
7. *Treatment of Dry Mouth*. Canadian Pharmacist's Letter 2010; 26(10):261006.
8. *Drugs with Anticholinergic Activity*. Canadian Pharmacist's Letter 2011; 27(12):271206.

Additional References

- Aldebert G, Faillie JL, Hillaire-Buys D, et al. *Association of Anticholinergic Drug Use With Risk for Late Age-Related Macular Degeneration*. JAMA Ophthalmol. 2018 May 24.
- Andre L, Gallini A, Montastruc F, et al. *Anticholinergic exposure and cognitive decline in older adults: Effect of anticholinergic exposure definitions in a 3-year analysis of the Multidomain Alzheimer Preventive Trial (MAPT) study*. Br J Clin Pharmacol. 2018 Aug 10.
- *Anticholinergic Cognitive Burden Scale* http://www.indydiscoverynetwork.org/AnticholinergicCognitiveBurdenScale.html
- Beau AB, Montastruc JL, Lacroix I, et al. *Atropinic (anticholinergic) burden of drugs during pregnancy and psychological development of children: a cohort study in the EFEMERIS database*. Br J Clin Pharmacol. 2016 Apr 16.
- Boustani MA, Campbell NL, Munger S, Maidment I, Fox GC. *Impact of anticholinergics on the aging brain: a review and practical application*. Aging Heatlh. 2008;4(3):311-320.
- Cai X, Campbell N, Khan B, Callahan C, Boustani M. *Long-term anticholinergic use and the aging brain*. Alzheimers Dementia. 2012; epub ahead of print.
- Campbell N, Boustani M, Limbil T, et al. *The cognitive impact of anticholinergics: a clinical review*. Clinical Interventions in Aging. 2009;4(1):225-233.
- Campbell N, Boustani M, Lane K, et al. *Use of anticholinergics and the risk of cognitive impairment in an African- American population*. Neurology. 2010;75:152-159.
- Campbell NL, Boustani MA, Lane KA, et al. *Use of anticholinergics and the risk of cognitive impairment in an African American population*. Neurology. 2010 Jul 13;75(2):152-9.
- Carrière I, Fourrier-Reglat A, Dartigues JF, et al. *Drugs with anticholinergic properties, cognitive decline, and dementia in an elderly general population: the 3-city study*. Arch Intern Med. 2009 Jul 27;169(14):1317-24.
- Clinical Resource. *Drugs with Anticholinergic Activity*. Pharmacist's Letter/Prescriber's Letter. August 2017.
- Fox C, Richardson K, Maidment I, et al. *Anticholinergic medication use and cognitive impairment in the older population: the Medical Research Council Cognitive Function and Ageing Study*. Journal of the American Geriatric Society. 2011; 59(8): 1477-1483.

- Gomm W, von Holt K, Thomé F, et al. *Association of proton pump inhibitors with risk of dementia: a pharmacoepidemiological claims data analysis* [online Feb 15, 2016]. JAMA Neurol. doi:10.1001/jamaneurol.2015.4791.
- Gray SL, Anderson ML, Dublin S, et al. *Cumulative use of strong anticholinergics and incident dementia: a prospective cohort study* [online January 26, 2015]. JAMA Intern Med. doi:10.1001/jamainternmed.2014.7663.
- Han L, Agostini JV, Allore HG. *Cumulative anticholinergic exposure is associated with poor memory and executive function in older men*. J Am Geriatr Soc. 2008 Dec;56(12):2203-10.
- Heath L, Gray SL, Boudreau DM, et al. *Cumulative Antidepressant Use and Risk of Dementia in a Prospective Cohort Study*. J Am Geriatr Soc. 2018 Sep 17. (paroxetine)
- Kalisch Ellett LM, Pratt NL, et al. *Multiple anticholinergic medication use and risk of hospital admission for confusion or dementia*. J Am Geriatr Soc. 2014 Oct;62(10):1916-22.
- Kennedy J, Deberdt W, Siegal A, et al. *Olanzapine does not enhance cognition in non-agitated and non-psychotic patients with mild to moderate Alzheimer's dementia*. Int J Geriatr Psychiatry. 2005 Nov;20(11):1020-7.
- Lackner TE, Wyman JF, McCarthy TC, Monigold M, Davey C. *Randomized, placebo-controlled trial of the cognitive effect, safety, and tolerability of oral extended-release oxybutynin 5mg/day in cognitively impaired nursing home residents with urge urinary incontinence*. J Am Geriatr Soc. 2008 May;56(5):862-70.
- Marcum ZA, Perera S, Thorpe JM, et al; Health ABC Study, USA. *Anticholinergic Use and Recurrent Falls in Community-Dwelling Older Adults: Findings From the Health ABC Study*. Ann Pharmacother. 2015 Nov;49(11):1214-21.
- McCartney M. *Margaret McCartney: Drugs with anticholinergic side effects and cognitive decline-cause or effect?* BMJ. 2015 Mar 16;350:h1428.
- Myint PK, Fox C, Kwok CS, et al. *Total anticholinergic burden and risk of mortality and cardiovascular disease over 10 years in 21,636 middle-aged and older men and women of EPIC-Norfolk prospective population study*. Age Ageing. 2014 Nov 27.
- NICE: National Institute for Health and Care Excellence. *Dementia - assessment, management and support for people living with dementia and their carers (NICE guideline NG97)*. 2018. www.nice.org.uk/guidance/ng97
- Page AT, Clifford RM, Potter K, et al. *The feasibility and the effect of deprescribing in older adults on mortality and health: A systematic review*. Br J Clin Pharmacol. 2016 Apr 14.
- Paul KJ, Walker RL, Dublin S. *Anticholinergic Medications and Risk of Community-Acquired Pneumonia in Elderly Adults: A Population-Based Case-Control Study*. J Am Geriatr Soc. 2015 Mar 2.
- Richardson KFox CMaidment I. *Anticholinergic drugs and risk of dementia: case-control study*. BMJ 2018;361:k1315.
- Risacher SL, McDonald BC, Tallman EF, et al. *Alzheimer's Disease Neuroimaging Initiative. Association Between Anticholinergic Medication Use and Cognition, Brain Metabolism, and Brain Atrophy in Cognitively Normal Older Adults*. JAMA Neurol. 2016 Apr 18.
- Rudolph JL, Salow MJ, Angelini MC, McGlinchey RE. *The anticholinergic risk scale and anticholinergic adverse effects in older persons*. Arch Intern Med. 2008 Mar 10;168(5):508-13.
- Sink KM, Thomas J 3rd, Xu H, Craig B, et al. *Dual Use of Bladder Anticholinergics and Cholinesterase Inhibitors: Long-Term Functional and Cognitive Outcomes*. J Am Geriatr Soc. 2008 Apr 1.
- Spence MM, Karim FA, Lee EA, et al. *Risk of Injury in Older Adults Using Gastrointestinal Antispasmodic and Anticholinergic Medications*. J Am Geriatr Soc. 2015 Jun;63(6):1197-202.
- Tannenbaum C, Paquette A, Hilmer S, et al. *A systematic review of amnestic and non-amnestic mild cognitive impairment induced by anticholinergic, antihistamine, GABAergic and opioid drugs*. Drugs Aging. 2012 Aug 1;29(8):639-58.

- Teramura-Grönblad M, Muurinen S, Soini H, et al. *Use of anticholinergic drugs and cholinesterase inhibitors and their association with psychological well-being among frail older adults in residential care facilities*. Ann Pharmacother. 2011 May;45(5):596-602.
- The American Geriatrics Society 2012 Beers Criteria Update Expert Panel. *American Geriatrics Society Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults*. J Am Geriatr Soc. 2012 Feb 29.
- Torjesen I. *Anticholinergic effects of common drugs are associated with increased mortality in over 65s*. BMJ. 2011 Jun 28;342:d4037.

NEUROLOGY & PSYCHIATRY

Dementia & Cognitive Impairment in Older Adults

1. Davidson M, Thorpe L, Bareham J. *An Introduction to the Various Types of Dementia, Their Management & Treatment*. April 2014.
2. Kurlowitz, L, & Wallace, M. (Jan 1999). *Try This: Best practices in nursing care to older adults: The mini mental state examination (MMSE)*, Issue #3. Retrieved June 6, 2004, from The John A. Hartford Foundation Institute for Geriatric Nursing, College of Nursing, New York University
3. Durso SC, Sullivan GM, eds. *Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine*. 8th ed. New York: American Geriatrics Society; 2013.
4. Health Navigator New Zealand. https://www.healthnavigator.org.nz , accessed March 11, 2019.
5. Hogan DB, Bailey P, Black S, Carswell A, Chertkow H, Clarke B, Cohen C, Fisk JD, Forbes D, Man-Son-Hing M, Lanctôt K, Morgan D, Thorpe L. *Diagnosis and treatment of dementia: 5. Nonpharmacologic and pharmacologic therapy for mild to moderate dementia*. CMAJ. 2008 Nov 4;179(10):1019-26.
6. Gauthier S, Patterson C, Chertkow H, Gordon M, Herrmann N, Rockwood K, Rosa-Neto P, Soucy JP. *Recommendations of the 4th Canadian Consensus Conference on the Diagnosis and Treatment of Dementia (CCCDTD4)*. Can Geriatr J. 2012 Dec;15(4):120-6. doi: 10.5770/cgj.15.49. Epub 2012 Dec 4. PubMed PMID: 23259025; PubMed Central PMCID: PMC3516356.
7. AWentrup et al. *Once-daily transdermal rivastigmine in the treatment of Alzheimer's disease*. Drug Des Devel Ther 2008; 2:245.
8. J Cummings et al. *Randomized, double-blind, parallel-group, 48-week study for efficacy and safety of a higher-dose rivastigmine patch (15 vs 10 cm2) in Alzheimer's disease*. Dement Geriatr Cogn Disord 2012; 33:341.
9. Hogan DB, Bailey P, Black S, Carswell A, Chertkow H, Clarke B, Cohen C, Fisk JD, Forbes D, Man-Son-Hing M, Lanctôt K, Morgan D, Thorpe L. *Diagnosis and treatment of dementia: 5. Nonpharmacologic and pharmacologic therapy for mild to moderate dementia*. CMAJ. 2008 Nov 4;179(10):1019-26.
10. Herrmann N, Chau SA, Kircanshi I, Lanctot KL. *Current and emerging drug treatment options for Alzheimer's disease: a systematic review*. Drugs 2011;71:2031-65.
11. McShane R, Westby M, Roberts E. et al. *Memantine for dementia*. Cochrane Database Syst Rev. 2019;Mar 20;3:CD003154. Doi: 10.1002/14651858.CD003154.pub6.
12. Hogan DB, Bailey P, Black S, Carswell A, Chertkow H, Clarke B, Cohen C, Fisk JD, Forbes D, Man-Son-Hing M, Lanctôt K, Morgan D, Thorpe L. *Diagnosis and treatment of dementia: 5. Nonpharmacologic and pharmacologic therapy for mild to moderate dementia*. CMAJ. 2008 Nov 4;179(10):1019-26.
13. *Pharmacotherapy choices for patients with dementia*. Pharmacist's Letter/Prescriber's Letter 2008;24(5):240510.
14. Gill SS, Anderson GM, Fischer HD, Bell CM, Li P, Normand ST, Rochon PA. *Syncope and its' consequences in patients with dementia receiving cholinesterase inhibitors: a population based cohort study*. Arch Intern Med. 2009;169(9):867–73.
15. Gill SS, Anderson GM, Fischer HD, Bell CM, Li P, Normand ST, Rochon PA. *Syncope and its' consequences in patients with dementia receiving cholinesterase inhibitors: a population based cohort study*. Arch Intern Med. 2009;169(9):867–73.
16. Hernandez RK, Farwell W, Cantor MD, Lawler EV. *Cholinesterase inhibitors and incidence of bradycardia in patients with dementia in the Veterans Affairs New England Healthcare System*. J Am Geriatr Soc. 2009;57:1997–2003.
17. Gauthier S, Patterson C, Chertkow H, et al. *Recommendations of the 4th Canadian Consensus Conference on the Diagnosis and Treatment of Dementia (CCCDTD4)*. Canadian Geriatrics Journal. 2012;15(4):120-6.
18. PN Tariot et al. *Memantine treatment in patients with moderate to severe Alzheimer disease already receiving donepezil: a randomized controlled trial.* JAMA 2004; 291:317.
19. GT Grossberg et al. *The safety, tolerability and efficacy of once-daily memantine (28 mg): A multinational, randomized, double-blind, placebo-controlled trial in patients with moderate-to-severe Alzheimer's disease taking cholinesterase inhibitors*. CNS Drugs 2013; 27:469.
20. AP Porsteinsson et al. *Memantine treatment in patients with mild to moderate Alzheimer's disease already receiving a cholinesterase inhibitor: a randomized, double blind, placebo-controlled trial*. Curr Alzheimer Res 2008; 5:83.

21. R Howard et al. *Donepezil and memantine for moderate-to-severe Alzheimer's disease (DOMINO)*. N Engl J Med 2012; 366:893.
22. Hogan DB, Bailey P, Black S, Carswell A, Chertkow H, Clarke B, Cohen C, Fisk JD, Forbes D, Man-Son-Hing M, Lanctôt K, Morgan D, Thorpe L. *Diagnosis and treatment of dementia: 5. Nonpharmacologic and pharmacologic therapy for mild to moderate dementia*. CMAJ. 2008 Nov 4;179(10):1019-26.
23. Qaseem A, Snow V, Cross JT Jr, et al. *Current pharmacologic treatment of dementia: a clinical practice guideline from the American College of Physicians and the American Academy of Family Physicians*. Ann Intern Med 2008;148:370-8.
24. *AAGP position statement: principles of care for patients with dementia resulting from Alzheimer disease*. http://www.aagponline.org/index.php?src=news&submenu=Tools_Resources&srctype=detail&category=Position%20Statement&refno=35 .
25. Lanctôt KL, Herrmann N, Yau KK, et al. *Efficacy and safety of cholinesterase inhibitors in Alzheimer's disease: a meta-analysis*. CMAJ 2003; 169:557.
26. Wild R, Pettit T, Burns A. *Cholinesterase inhibitors for dementia with Lewy bodies*. Cochrane Database Syst Rev. 2003;(3):CD003672.
27. McKeith I, Del Ser T, Spano P, et al. *Efficacy of rivastigmine in dementia with Lewy bodies: a randomised, double-blind, placebo-controlled international study*. Lancet. 2000 Dec 16;356(9247):2031-6
28. AD2000 Collaborative Group. *Long-term donepezil treatment in 565 patients with Alzheimer's disease (AD2000): randomised double-blind trial*. Lancet 2004; 363: 2105-2115.
29. Moore A, Patterson C, Lee L, Vedel I, Bergman H. *Fourth Canadian Consensus Conference on the Diagnosis and Treatment of Dementia: recommendations for family physicians*. Can Fam Physician. 2014 May;60(5):433-8.
30. PL Detail-Document, *Pharmacotherapy and Advancing Alzheimer's Disease*. Pharmacist's Letter/Prescriber's Letter. May 2012.
31. Reeve E, Farrell B, Thompson W, et al. *Deprescribing cholinesterase inhibitors and memantine in dementia: guideline summary*. Med J Aust. 2019;210(4):174-9.
32. Howard R, McShane R, Lindesay J, et al. *Donepezil and memantine for moderate-to-severe Alzheimer's disease*. N Engl J Med 2012;366:893-903.
33. Overshott R, Burns A. *Treatment of dementia*. J Neurol Neurosurg Psychiatry 2005;76(Suppl 5):53-9.
34. Singh S, Dudley C. *Discontinuation syndrome following donepezil cessation*. Int J Geriatr Psychiatry2003;18:282-4.
35. Kwak YT, Han IW, Suk SH, Koo MS. *Two cases of discontinuation syndrome following cessation of memantine*. Geriatr Gerontol Int 2009;9:203-5.
36. Kwak YT, Han IW, Suk SH, Koo MS. *Two cases of discontinuation syndrome following cessation of memantine*. Geriatr Gerontol Int 2009;9:203-5.
37. Naqvi R, Liberman D, Rosenberg J, Alston J, Straus S. *Preventing cognitive decline in healthy older adults*. CMAJ. 2013 Jul 9;185(10):881-5.
38. Cassilhas RC, Viana VA, Grassmann V, et al. *The impact of resistance exercise on the cognitive function of the elderly*. Med Sci Sports Exerc 2007;39:1401-7.
39. Willis SL, Tennstedt SL, Marsiske M, et al. *Long-term effects of cognitive training on everyday functional outcomes in older adults*. JAMA 2006;296:2805-14.
40. Smith GE, Housen P, Yaffe K, et al. *A cognitive training program based on principles of brain plasticity: results from the improvement in memory with plasticity-based adaptive cognitive training (IMPACT) study*. J Am Geriatr Soc 2009;57:594-603.
41. Berry AS, Zanto TP, Clapp WC, et al. *The influence of perceptual training on working memory in older adults*. PLoS ONE 2010;5:e11537.
42. Gray SL, Anderson ML, Dublin S, Hanlon JT, Hubbard R, Walker R, Yu O, Crane PK, Larson EB. *Cumulative use of strong anticholinergics and incident dementia: a prospective cohort study*. JAMA Intern Med. 2015 Mar;175(3):401-7. doi: 10.1001/jamainternmed.2014.7663. PubMed PMID: 25621434; PubMed Central PMCID: PMC4358759.
43. Martin BK, Szekely C, Brandt J, et al. *Cognitive function over time in the Alzheimer's Disease Anti-Inflammatory Prevention Trial (ADAPT)*. Arch Neurol 2008;65:896-905.
44. Cooper C, Li R, Lyketsos C, Livingston G. *Treatment for mild cognitive impairment: systematic review*. Br J Psychiatry. 2013 Sep;203(3):255-64.
45. Wolf OT, Neumann O, Hellhammer DH, et al. *Effects of a two week physiological DHEA substitution on cognitive performance and well-being in healthy elderly women and men*. J Clin Endocrinol Metab 1997;82:2363-7.

46. van Niekerk JK, Huppert FA, Herbert J. S*alivary cortisol and DHEA: association with measures of cognition and well-being in normal older men, and effects of three months of DHEA supplementation*. Psychoneuroendocrinology 2001;26:591-612.
47. Kritz-Silverstein D, von Muhlen D, Laughlin GA, et al. *Effects of DHEA supplementation on cognitive function and quality of life*. J Am Geriatr Soc 2008;56:1292-8.
48. Shumaker SA, Legault C, Rapp SR, Thal L, Wallace RB, Ockene JK, et al; WHIMS Investigators. *Estrogen plus progestin and the incidence of dementia and mild cognitive impairment in Postmenopausal women: the Women's Health Initiative Memory Study: a randomized Controlled trial*. JAMA. 2003;289:2651-62.
49. Solomon PR, Adams F, Silver A, et al. *Ginkgo for memory enhancement*. JAMA 2002;288:835-40.
50. Dodge HH, Zitzelberger T, Oken BS, et al. *A randomized placebo-controlled trial of Ginkgo biloba for the prevention of cognitive decline*. Neurology 2008;70:1809-17.
51. Vellas B, Coley N, Ousset PJ, Berrut G, Dartigues JF, Dubois B, Grandjean H, Pasquier F, Piette F, Robert P, Touchon J, Garnier P, Mathiex-Fortunet H, Andrieu S; GuidAge Study Group. *Long-term use of standardised Ginkgo biloba extract for the prevention of Alzheimer's disease (GuidAge): a randomised placebo-controlled trial*. Lancet Neurol. 2012 Oct;11(10):851-9. doi: 10.1016/S1474-4422(12)70206-5. Epub 2012 Sep 6. Review. PubMed PMID: 22959217.
52. Dodge HH, Zitzelberger T, Oken BS, et al. *A randomized placebo-controlled trial of Ginkgo biloba for the prevention of cognitive decline*. Neurology 2008;70:1809-17.
53. Vellas B, Coley N, Ousset PJ, Berrut G, Dartigues JF, Dubois B, Grandjean H, Pasquier F, Piette F, Robert P, Touchon J, Garnier P, Mathiex-Fortunet H, Andrieu S; GuidAge Study Group. *Long-term use of standardised Ginkgo biloba extract for the prevention of Alzheimer's disease (GuidAge): a randomised placebo-controlled trial*. Lancet Neurol. 2012 Oct;11(10):851-9. doi: 10.1016/S1474-4422(12)70206-5. Epub 2012 Sep 6. Review. PubMed PMID: 22959217.
54. DeKosky ST, Williamson JD, Fitzpatrick AL, Kronmal RA, Ives DG, Saxton JA, et al; Ginkgo Evaluation of Memory (GEM) Study Investigators. *Ginkgo biloba for prevention of dementia: a randomized controlled trial*. JAMA. 2008;300:2253-62.
55. Deijen JB, van der Beek EJ, Orlebeke JF, et al. *Vitamin B-6 supplementation in elderly men: effects on mood, memory, performance and mental effort*. Psychopharmacology (Berl) 1992; 109: 489-96
56. Kang JH, Cook N, Manson J, et al. *A randomized trial of vitamin E supplementation and cognitive function in women*. Arch Intern Med 2006;166:2462-8.
57. Pathansali R, Mangoni AA, Creagh-Brown B, et al. *Effects of folic acid supplementation on psychomotor performance and hemorheology in healthy elderly subjects*. Arch Gerontol Geriatr 2006; 43:127-37.
58. van de Rest O, Geleijnse JM, Kok FJ, et al. *Effect of fish oil on cognitive performance in older subjects*. Neurology 2008; 71: 430-8.
59. Barnes DE, Yaffe K. *The projected effect of risk factor reduction on Alzheimer's disease prevalence*. Lancet Neurol. 2011;10:819-28.
60. Barnes DE, Yaffe K. *The projected effect of risk factor reduction on Alzheimer's disease prevalence*. Lancet Neurol. 2011;10:819-28.
61. Cooper C, Sommerlad A, Lyketsos CG, Livingston G. *Modifiable predictors of dementia in mild cognitive impairment: a systematic review and meta-analysis*. Am J Psychiatry. 2015 Apr;172(4):323-34. doi: 10.1176/appi.ajp.2014.14070878. Epub 2015 Feb 20. Review. PubMed PMID: 25698435.

NEUROLOGY & PSYCHIATRY

Dementia: Behavioural & Psychological Symptoms

1. American Geriatrics Society. *Geriatrics Evaluation & Management Tools*. New York: American Geriatrics Society; 2013.
2. RxFiles. *Management of Behavioural & Psychological Symptoms of DEMENTIA (BPSD)*. 2011. Available: http://www.rxfiles.ca/rxfiles/uploads/documents/Psych-BPSD-Newsletter.pdf
3. Bpac New Zealand. *Antipsychotics in Dementia – Best Practice Guide*. Available: https://bpac.org.nz/a4d/resources/docs/bpac_A4D_best_practice_guide.pdf
4. McShane R. *What are the syndromes of behavioral and psychological symptoms of dementia?* Int Psychoger 2000;12(Supp S1):147-153.
5. Rabheru K. *Practical tips for recognition and management of behavioural and psychological symptoms of dementia*. CBS Journal of CME 2011;1(1):17-22.
6. British Columbia Ministry of Health. *Best Practice Guideline for Accommodating and Managing Behavioural and Psychological Symptoms of Dementia in Residential Care: A Person-Centered Interdisciplinary Approach*. 2012. Available: http://www.health.gov.bc.ca/library/publications/year/2012/bpsd-guideline.pdf
7. Drouillard ND, Mithani A, Chan PKY. *Therapeutic approaches in the management of behavioral and psychological symptoms of dementia in the elderly*. BCMJ. 2013 Mar 2013;55(2):90-95.
8. Davidson M, Thorpe L, Bareham J. *An introduction to the various types of dementia, their management & treatment*. RxFiles. 2014.
9. Hamilton P, Harris D, LeClair K, Collins J. *Putting the P.I.E.C.E.S.™ together; a model for collaborative care and changing practice; a learning resource for providers caring for older adults with complex physical and cognitive/ mental needs and behavioural Changes, 6th ed*. Shop for Learning Publishing Services; 2008
10. Shipton EA. *Pain assessment in dementia*. N Z Med J 2008;121(1286):9–11.
11. Bpac New Zealand. *Antipsychotics in Dementia – Best Practice Guide*. Available: https://bpac.org.nz/a4d/resources/docs/bpac_A4D_best_practice_guide.pdf
12. Sadowsky CH, Galvin JE. *Guidelines for the management of cognitive and behavioral problems in dementia*. J Am Board Fam Med. 2012 May-Jun;25(3):350-66.
13. Kales HC, Gitlin LN, Lyketsos CG. *Assessment and management of behavioral and psychological symptoms of dementia*. BMJ. 2015 Mar 2;350:h369. doi: 10.1136/bmj.h369. Review. PubMed PMID: 25731881.
14. Scales K, Zimmerman S, Miller S. *Evidence-based nonpharmacological practices to address behavioral and psychological symptoms of dementia*. Gerontologist;2018:58:S1,S88-S102.
15. American Geriatrics Society. *Geriatrics Evaluation & Management Tools*. New York: American Geriatrics Society; 2013.
16. American Geriatrics Society. *Geriatrics Evaluation & Management Tools*. New York: American Geriatrics Society; 2013.
17. Bpac New Zealand. *Antipsychotics in Dementia – Best Practice Guide*. Available: https://bpac.org.nz/a4d/resources/docs/bpac_A4D_best_practice_guide.pdf
18. American Geriatrics Society. *Geriatrics Evaluation & Management Tools*. New York: American Geriatrics Society; 2013.
19. American Geriatrics Society. *Geriatrics Evaluation & Management Tools*. New York: American Geriatrics Society; 2013.
20. Dolder CR, Davis LN, McKinsey J. *Use of psychostimulants in patients with dementia*. Ann Pharmacother. 2010 Oct;44(10):1624-32.
21. Davidson M, Thorpe L, Bareham J. *An introduction to the various types of dementia, their management & treatment*. RxFiles. 2014.

22. Padala PR, Padala KP, Lensing SY, Ramirez D, Monga V, Bopp MM, Roberson PK, Dennis RA, Petty F, Sullivan DH, Burke WJ. *Methylphenidate for Apathy in Community-Dwelling Older Veterans With Mild Alzheimer's Disease: A Double-Blind, Randomized, Placebo-Controlled Trial*. Am J Psychiatry. 2018 Feb 1;175(2):159-168. doi: 0.1176/appi.ajp.2017.17030316.
23. PL Detail-Document, *Pharmacotherapy of Dementia Behaviors*. Pharmacist's Letter/Prescriber's Letter. October 2011.
24. PL Detail-Document, *Pharmacotherapy of Dementia Behaviors*. Pharmacist's Letter/Prescriber's Letter. October 2011.
25. Porsteinsson AP, Drye LT, Pollock BG, Devanand DP, Frangakis C, Ismail Z, Marano C, Meinert CL, Mintzer JE, Munro CA, Pelton G, Rabins PV, Rosenberg PB, Schneider LS, Shade DM, Weintraub D, Yesavage J, Lyketsos CG; CitAD Research Group. *Effect of citalopram on agitation in Alzheimer disease: the CitAD randomized clinical trial*. JAMA. 2014 Feb 19;311(7):682-91.
26. Leonard D, Karlamangla A. *Dose-Dependent Sedating and Stimulating Effects of Mirtazapine*. Processdings of UCLA Healthcare. 2015 (19).
27. Moore A, Patterson C, Lee L, Vedel I, Bergman H. *Fourth Canadian Consensus Conference on the Diagnosis and Treatment of Dementia: recommendations for family physicians*. Can Fam Physician. 2014 May;60(5):433-8.
28. Schneider LS, Dagerman K, Insel PS. *Efficacy and adverse effects of atypical antipsychotics for dementia: Meta-analysis of randomized, placebo-controlled trials*. Am J Geriatr Psychiatry 2006;14:191-210.
29. Ballard CG, Waite J, Birks J. *Atypical antipsychotics for aggression and psychosis in Alzheimer's disease: Review*. Cochrane Database of Systematic Reviews 2006; Issue 1.
30. Moore A, Patterson C, Lee L, Vedel I, Bergman H. *Fourth Canadian Consensus Conference on the Diagnosis and Treatment of Dementia: recommendations for family physicians.* Can Fam Physician. 2014 May;60(5):433-8.
31. Simon G. *ACP Journal Club: new use of atypical antipsychotics was linked to acute kidney injury and all-cause mortality at 90 days*. Ann Intern Med. 2015 Feb 17;162(4):JC12. doi: 10.7326/ACPJC-2015-162-4-012. PubMed PMID: 25686187.
32. Simon G. *ACP Journal Club: new use of atypical antipsychotics was linked to acute kidney injury and all-cause mortality at 90 days*. Ann Intern Med. 2015 Feb 17;162(4):JC12. doi: 10.7326/ACPJC-2015-162-4-012. PubMed PMID: 25686187.
33. Simon G. *ACP Journal Club: new use of atypical antipsychotics was linked to acute kidney injury and all-cause mortality at 90 days*. Ann Intern Med. 2015 Feb 17;162(4):JC12. doi: 10.7326/ACPJC-2015-162-4-012. PubMed PMID: 25686187.
34. Van Stien A, Souverein P, Keijsers C, Heerdink E, Derijks H, van Marum R. *Antipsychotic drug use associated with urinary tract infections in older women*. Maturitas. 2017;98:46-50.
35. Simon G. *ACP Journal Club: new use of atypical antipsychotics was linked to acute kidney injury and all-cause mortality at 90 days*. Ann Intern Med. 2015 Feb 17;162(4):JC12. doi: 10.7326/ACPJC-2015-162-4-012. PubMed PMID: 25686187.
36. Mittal V, Kurup L, Williamson D, Muralee S, Tampi RR. *Risk of cerebrovascular adverse events and death in elderly patients with dementia when treated with antipsychotic medications: a literature review of evidence*. Am J Alzheimers Dis Other Demen. 2011 Feb;26(1):10-28.
37. Schneider LS, Dagerman K, Insel PS. *Efficacy and adverse effects of atypical antipsychotics for dementia: meta-analysis of randomized, placebo-controlled trials*. Am J Geriatr Psychiatry. 2006 Mar;14(3):191-210. PubMed PMID: 16505124.
38. Ballard C, Howard R. *Neuroleptic drugs in dementia: benefits and harm*. Nat Rev Neurosci. 2006 Jun;7(6):492-500. Review. PubMed PMID: 16715057.
39. Herrmann N, Lanctôt KL. *Do atypical antipsychotics cause stroke?* CNS Drugs. 2005;19(2):91-103.
40. Schneider LS, Dagerman K, Insel PS. *Efficacy and adverse effects of atypical antipsychotics for dementia: meta-analysis of randomized, placebo-controlled trials*. Am J Geriatr Psychiatry. 2006 Mar;14(3):191-210.
41. Ballard CG, Waite J, Birks J. *Atypical antipsychotics for aggressions and psychosis in Alzheimer's disease (Review)*. Cochrane Database Syst Rev. 2009;4:1-128.
42. Maher AR, Maglione M, Bagley S, Suttorp M, Hu JH, Ewing B, Wang Z, Timmer M, Sultzer D, Shekelle PG. *Efficacy and comparative effectiveness of atypical antipsychotic medications for off-label uses in adults: a systematic review and meta-analysis*. JAMA. 2011 Sep 28;306(12):1359-69.

43. Mittal V, Kurup L, Williamson D, Muralee S, Tampi RR. *Risk of cerebrovascular adverse events and death in elderly patients with dementia when treated with antipsychotic medications: a literature review of evidence*. Am J Alzheimers Dis Other Demen. 2011 Feb;26(1):10-28.
44. Mittal V, Kurup L, Williamson D, Muralee S, Tampi RR. *Risk of cerebrovascular adverse events and death in elderly patients with dementia when treated with antipsychotic medications: a literature review of evidence*. Am J Alzheimers Dis Other Demen. 2011 Feb;26(1):10-28.
45. Mittal V, Kurup L, Williamson D, Muralee S, Tampi RR. *Risk of cerebrovascular adverse events and death in elderly patients with dementia when treated with antipsychotic medications: a literature review of evidence*. Am J Alzheimers Dis Other Demen. 2011 Feb;26(1):10-28.
    - Schneider LS, Tariot PN, Dagerman KS, Davis SM, Hsiao JK, Ismail MS, Lebowitz BD, Lyketsos CG, Ryan JM, Stroup TS, Sultzer DL, Weintraub D, Lieberman JA; CATIE-AD Study Group. *Effectiveness of atypical antipsychotic drugs in patients with Alzheimer's disease*. N Engl J Med. 2006 Oct 12;355(15):1525-38.
    - De Deyn PP, Rabheru K, Rasmussen A, Bocksberger JP, Dautzenberg PL, Eriksson S, Lawlor BA. *A randomized trial of risperidone, placebo, and haloperidol for behavioral symptoms of dementia*. Neurology. 1999 Sep 22;53(5):946-55.
    - Ballard C, Hanney ML, Theodoulou M, Douglas S, McShane R, Kossakowski K, Gill R, Juszczak E, Yu LM, Jacoby R; DART-AD investigators. *The dementia antipsychotic withdrawal trial (DART-AD): long-term follow-up of a randomised placebo-controlled trial*. Lancet Neurol. 2009 Feb;8(2):151-7.
    - Schneider LS, Dagerman K, Insel PS. *Efficacy and adverse effects of atypical antipsychotics for dementia: meta-analysis of randomized, placebo-controlled trials*. Am J Geriatr Psychiatry. 2006 Mar;14(3):191-210.
46. *The place of antipsychotics in the treatment of the behavioural and psychological symptoms of dementia*. Available: http://www.bpac.org.nz/a4e/bpacGuide.asp
47. Kales HC, Kim HM, Zivin K, Valenstein M, Seyfried LS, Chiang C, Cunningham F, Schneider LS, Blow FC. *Risk of mortality among individual antipsychotics in patients with dementia*. Am J Psychiatry. 2012 Jan;169(1):71-9.
48. Simon G. *ACP Journal Club: new use of atypical antipsychotics was linked to acute kidney injury and all-cause mortality at 90 days*. Ann Intern Med. 2015 Feb 17;162(4):JC12. doi: 10.7326/ACPJC-2015-162-4-012. PubMed PMID: 25686187.
49. Kales HC, Kim HM, Zivin K, Valenstein M, Seyfried LS, Chiang C, Cunningham F, Schneider LS, Blow FC. *Risk of mortality among individual antipsychotics in patients with dementia*. Am J Psychiatry. 2012 Jan;169(1):71-9.
50. Huybrechts KF, Gerhard T, Crystal S, Olfson M, Avorn J, Levin R, Lucas JA, Schneeweiss S. *Differential risk of death in older residents in nursing homes prescribed specific antipsychotic drugs: population based cohort study*. BMJ. 2012 Feb 23;344:e977.
51. Kales HC, Kim HM, Zivin K, Valenstein M, Seyfried LS, Chiang C, Cunningham F, Schneider LS, Blow FC. *Risk of mortality among individual antipsychotics in patients with dementia*. Am J Psychiatry. 2012 Jan;169(1):71-9.
52. Huybrechts KF, Gerhard T, Crystal S, Olfson M, Avorn J, Levin R, Lucas JA, Schneeweiss S. *Differential risk of death in older residents in nursing homes prescribed specific antipsychotic drugs: population based cohort study*. BMJ. 2012 Feb 23;344:e977.
53. Kales HC, Kim HM, Zivin K, Valenstein M, Seyfried LS, Chiang C, Cunningham F, Schneider LS, Blow FC. *Risk of mortality among individual antipsychotics in patients with dementia*. Am J Psychiatry. 2012 Jan;169(1):71-9.
54. Huybrechts KF, Gerhard T, Crystal S, Olfson M, Avorn J, Levin R, Lucas JA, Schneeweiss S. *Differential risk of death in older residents in nursing homes prescribed specific antipsychotic drugs: population based cohort study*. BMJ. 2012 Feb 23;344:e977.
55. Maust DT, Kim HM, Seyfried LS, Chiang C, Kavanagh J, Schneider LS, Kales HC. *Antipsychotics, other psychotropics, and the risk of death in patients with dementia: number needed to harm*. JAMA Psychiatry. 2015 May;72(5):438-45. doi: 10.1001/jamapsychiatry.2014.3018. PubMed PMID: 25786075; PubMed Central PMCID: PMC4439579.
56. Jeste DV, Blazer D, Casey D, et al. *ACNP white paper: update on use of antipsychotic drugs in elderly persons with dementia*. Neuropsychopharmacology. 2008;33:957-970.

57. Huybrechts KF, Gerhard T, Crystal S, Olfson M, Avorn J, Levin R, Lucas JA, Schneeweiss S. *Differential risk of death in older residents in nursing homes prescribed specific antipsychotic drugs: population based cohort study*. BMJ. 2012 Feb 23;344:e977.
58. Huybrechts KF, Gerhard T, Crystal S, Olfson M, Avorn J, Levin R, Lucas JA, Schneeweiss S. *Differential risk of death in older residents in nursing homes prescribed specific antipsychotic drugs: population based cohort study*. BMJ. 2012 Feb 23;344:e977.
59. Huybrechts KF, Gerhard T, Crystal S, Olfson M, Avorn J, Levin R, Lucas JA, Schneeweiss S. *Differential risk of death in older residents in nursing homes prescribed specific antipsychotic drugs: population based cohort study*. BMJ. 2012 Feb 23;344:e977.
60. *The place of antipsychotics in the treatment of the behavioural and psychological symptoms of dementia.* Available: http://www.bpac.org.nz/a4e/bpacGuide.asp
61. *The place of antipsychotics in the treatment of the behavioural and psychological symptoms of dementia*. Available: http://www.bpac.org.nz/a4e/bpacGuide.asp
62. *The place of antipsychotics in the treatment of the behavioural and psychological symptoms of dementia.* Available: http://www.bpac.org.nz/a4e/bpacGuide.asp
63. *The place of antipsychotics in the treatment of the behavioural and psychological symptoms of dementia*. Available: http://www.bpac.org.nz/a4e/bpacGuide.asp
64. Brodaty H, Aerts L, Harrison F, Jessop T, Cations M, Chenoweth L, et al. *Antipsychotic deprescription for older adults in long-term care: The HALT Study*. J Am Med Dir Assoc. 2018;19(7):592-600.
65. CATIE-AD - Schneider LS, Tariot PN, Dagerman KS, Davis SM, Hsiao JK, Ismail MS, et al. *Effectiveness of atypical antipsychotic drugs in patients with Alzheimer's disease*. NEJM 2006; 355:1525-1538.
66. RxFiles Chart *ANTIPSYCHOTICS (AP): Frequently Asked Questions*. Available: http://www.rxfiles.ca/rxfiles/uploads/documents/members/Cht-Psyc-Neuroleptics.pdf
67. Schneider LS, Tariot PN, Dagerman KS, Davis SM, Hsiao JK, Ismail MS, et al. *Effectiveness of atypical antipsychotic drugs in patients with Alzheimer's disease*. NEJM 2006; 355:1525-1538. CATIE-AD
68. Gauthier S, Cummings J, Ballard C, Brodaty H, Grossberg G, Robert P, Lyketsos C. *Management of behavioral problems in Alzheimer's disease*. Int Psychogeriatr. 2010;22:346-72.
69. *The place of antipsychotics in the treatment of the behavioural and psychological symptoms of dementia*. Available: http://www.bpac.org.nz/a4e/bpacGuide.asp
70. PL Detail-Document, *Pharmacotherapy of Dementia Behaviors*. Pharmacist's Letter/Prescriber's Letter. October 2011.
71. PL Detail-Document, *Pharmacotherapy of Dementia Behaviors*. Pharmacist's Letter/Prescriber's Letter. October 2011.
72. Moore A, Patterson C, Lee L, Vedel I, Bergman H. *Fourth Canadian Consensus Conference on the Diagnosis and Treatment of Dementia: recommendations for family physicians*. Can Fam Physician. 2014 May;60(5):433-8.
73. Howard RJ, Juszczak E, Ballard CG, Bentham P, Brown RG, Bullock R, Burns AS, Holmes C, Jacoby R, Johnson T, Knapp M, Lindesay J, O'Brien JT, Wilcock G, Katona C, Jones RW, DeCesare J, Rodger M; CALM-AD Trial Group. *Donepezil for the treatment of agitation in Alzheimer's disease*. N Engl J Med. 2007 Oct 4;357(14):1382-92.
74. Herrmann N, Gauthier S, et al. *A randomized, double-blind, placebo-controlled trial of memantine in a behaviorally enriched sample of patients with moderate-to-severe Alzheimer's disease*. Int Psychogeriatr. 2013 Mar 8:1-9.
75. Wilcock, Gordon K., et al. *Memantine for agitation/aggression and psychosis in moderately severe to severe Alzheimer's disease: a pooled analysis of 3 studies*. The Journal of clinical psychiatry 69.3 (2008): 341-348.

62. Mittal V, Kurup L, Williamson D, Muralee S, Tampi RR. *Risk of cerebrovascular adverse events and death in elderly patients with dementia when treated with antipsychotic medications: a literature review of evidence*. Am J Alzheimers Dis Other Demen 2011;26:10-28. Accessed 29 Sep 2011 at http://aja.sagepub.com/content/26/1/10.abstract?rss=1
63. Schneider LS, Tariot PN, Dagerman KS, Davis SM, Hsiao JK, Ismail MS, et al. *Effectiveness of atypical antipsychotic drugs in patients with Alzheimer's disease*. NEJM 2006; 355:1525-1538. CATIE-AD
64. Schneider LS, Tariot PN, Dagerman KS, Davis SM, Hsiao JK, Ismail MS, et al. *Effectiveness of atypical antipsychotic drugs in patients with Alzheimer's disease*. NEJM 2006; 355:1525-1538. CATIE-AD
65. Health Canada Advisory. *Health Canada advises consumers about important safety information on atypical antipsychotic drugs and dementia*. June 15, 2005. http://www.hc-sc.gc.ca/ahc-asc/media/advisoriesavis/_2005/2005_63-eng.php
66. *FDA Public Health Advisory: Deaths with Antipsychotics in Elderly Patients with Behavioral Disturbances*. Available: http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/DrugSafetyInformationforHeathcareProfessionals/PublicHealthAdvisories/ucm053171.htm
67. Smith TG. *Antipsychotics in dementia - mortality risks and strategies to reduce prescribing*. Evid Based Ment Health. 2011 Mar 31.
68. Schneider LS, Dagerman KS, Insel P. *Risk of death with atypical antipsychotic drug treatment for dementia: meta-analysis of randomized placebo controlled trials*. JAMA. 2005;294:1934-43.

NEUROLOGY & PSYCHIATRY

Depression in Older Adults

1. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006.
2. Taylor, WD. *Depression in the Elderly*. N Engl J Med 2014; 371: 1228-36.
3. Ismail Z, Fischer C, McCall WV. *What characterizes late-life depression?* Psychiatr Clin North Am. 2013;36:483-496.
4. Blazer, DG, Hybels CF, Pieper CF. *The association of depression and mortality in elderly persons: a case for multiple, independent pathways*. J Gerontol A Biol Sci Med Sci 2001; 56: M505-9.
5. Charney, DS, Reynolds CF, Lewis L, et al. *Depression and bipolar support alliance consensus statement on the unmet needs in diagnosis and treatment of mood disorders in late life*. Arch Gen Psychiatry 2003l 60: 664-72.
6. Unutzer, J, Patrick DL, Diehr, P, et al. *Quality adjusted life years in older adults with depressive symptoms and chronic medical disorders*. Int Psychogeriatr 2000; 12: 15-33.
7. Lyketsos CG, Lee HB. *Diagnosis and treatment of depression in Alzheimer's disease. A practical update for the clinician*. Dement Geriatr Cogn Discord 2004; 17 (1-2): 55-64.
8. Mitchell AJ, Subramaniam H. *Prognosis of depression in old age compared to middle age: a systemic review of comparative studies*. Am J Psychiatry 2005; 162: 1588-601.
9. Lict- Strunk E, Van Marjwijk HW, Hoekstra T et al. *Outcome of depression in later life in primary care: longitudinal cohort study with three years' follow-up*. BMJ 2009; 338; a3079.
10. Ismail Z, Malick A, Smith E, et al. *Depression versus dementia: is this construct still relevant?* Neurodegener Dis Manag. 2014;4:119-26.
11. Ismail Z, Smith E, Geda Y, et al. *Neuropsychiatric symptoms as early manifestations of emergent dementia: provisional diagnostic criteria for mild behavioral impairment*. Alzheimers Dement. 2016;12:195-202.
12. Rodda J, Walker Z, Carter J. *Depression in older adults*. BMJ 2011; 343: d5219.
13. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006.
14. Frank, C. *Pharmacologic treatment of depression in the elderly*. Canadian Family Physician. 2014; 60: 121-126.
15. Ames, D. Ashby D, Mann AH, et al. *Psychiatric illness in elderly residents of Part III homes in one London Borough: prognosis and review*. Age Ageing 1988; 17 (4): 249-56.
16. Ames, D. *Depression among elderly residents of local-authority residential homes. Its nature and the efficacy of intervention*. Br J Psychiatry 1990; 156; 667-75.
17. Rodda J, Walker Z, Carter J. *Depression in older adults.* BMJ 2011; 343: d5219
18. Rodda J, Walker Z, Carter J. *Depression in older adults*. BMJ 2011; 343: d5219
19. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5 (5th ed.)*. Arlington, VA: American Psychiatric Publishing.
20. Taylor, WD. *Depression in the Elderly*. N Engl J Med 2014; 371: 1228-36.
21. *Practice Guideline for Treatment of Patients with Major Depressive Disorder*- Third Edition APA. Available at: http://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/mdd.pdf
22. Katz IR, Simpson GM, Curlik SM et al. *Pharmacologic treatment of major depression for elderly patients in residential care settings*. J Clin Psychiatry 1990; 51 (suppl): 41-47.

23. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006
24. *Practice Guideline for Treatment of Patients with Major Depressive Disorder*- Third Edition APA. Available at: http://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/mdd.pdf
25. Kotbi N, Mahgoub N, Odom A. *Depression in older adults: How to treat its distinct clinical manifestations*. Current Psychiatry 2010; 9 (8): 39-45.
26. Rodda J, Walker Z, Carter J. *Depression in older adults*. BMJ 2011; 343: d5219.
27. Rodda J, Walker Z, Carter J. *Depression in older adults*. BMJ 2011; 343: d5219.
28. Manthorpe J, Lliffe S. *Suicide in later life: public health and practitioner perspectives*. Int J Geriatr Psychiatry 2010; 25: 1230-8.
29. *Practice Guideline for Treatment of Patients with Major Depressive Disorder*- Third Edition APA. Available at: http://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/mdd.pdf
30. Conwell, Y, Thompson C. *Suicidal behavior in elders*. Spcyhiatr Clin North Am 2008; 31: 333-356.
31. Manthorpe J, Lliffe S. *Suicide in later life: public health and practitioner perspectives*. Int J Geriatr Psychiatry 2010; 25: 1230-8.
32. Rodda J, Walker Z, Carter J. *Depression in older adults*. BMJ 2011; 343: d5219.
33. Rodda J, Walker Z, Carter J. *Depression in older adults*. BMJ 2011; 343: d5219.
34. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006.
35. *Practice Guideline for Treatment of Patients with Major Depressive Disorder*- Third Edition APA. Available at: http://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/mdd.pdf
36. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006.
37. Colasanti V, Marianetti M, Micacchi F et al. *Tests for the evaluation of depression in the elderly: a systematic review*. Arch Gerontol Geriatr 2010; 50; 227-30.
38. Rodda J, Walker Z, Carter J. *Depression in older adults*. BMJ 2011; 343: d5219.
39. Cole M, Dendukuri N. *Risk factors for depression among elderly community subjects: a systematic review and meta-analysis*. Am J Psychiatry. 2003;160(6):1147.
40. Kotbi N, Mahgoub N, Odom A. *Depression in older adults: How to treat its distinct clinical manifestations*. Current Psychiatry 2010; 9 (8): 39-45. & Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006
41. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006
42. Li C, Friedman B, Conwell Y, et al. *Validity of the Patient Health Questionnaire 2 (PHQ-2) in identifying major depression in older people*. J Am Geriatr Soc. 2007;55(4):596.
43. Thorpe L. *Depression vs. Dementia: How do we assess?* The Canadian Review of Alzheimer's Disease and Other Dementias 2009 (Sept): 17-21.
44. American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5 (5th ed.)*. Arlington, VA: American Psychiatric Publishing.
45. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006.
46. *SIG-E-CAPS*. https://www.unmc.edu/media/intmed/geriatrics/reynolds/pearlcards/depression/sigecaps.htm , accessed March 21, 2019.
47. Thorpe L. *Depression vs. Dementia: How do we assess?* The Canadian Review of Alzheimer's Disease and Other Dementias 2009 (Sept): 17-21.

48. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006.
49. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006.
50. Rodda J, Walker Z, Carter J. *Depression in older adults*. BMJ 2011; 343: d5219.
51. Lee MJ, Proctor E, Morro-Howell N. *Depression outcomes and quality of postdischarge care of elders hospitalized for major depression*. Psychiatr Serv 2006; 57: 1446-1451.
52. Steffens DC, Pieper CF, Bosworth HB et al. *Biological and social predictors of long-term geriatric depression outcome*. Int Psychogeriatr 2005; 17: 41-56.
53. Cuijpers P, van SA, Smit F, et al. *Is psychotherapy for depression equally effective in younger and older patients? A meta-regression analysis*. Int Psychogeriatr 2009; 21: 16-24.
54. Pinquart M, Duberstein P, Lyness J. *Treatment for later-life depressive conditions: a mata-analytic comparison of pharmacotherapy and psychotherapy*. Am J Psychiatry. 2006;163(9): 1493-1501.
55. Huang A, Delucchi K, Dunn L, et al. *A systematic review and meta-analysis of psychotherapy for late-life depression*. Am J Geriatr Psychiatry. 2015;23:261-73.
56. Cuijpers P, can Sam Warmerdam L et al. *Psychotherapy versus the combination of psychotherapy and pharmacotherapy in the treatment of depression: a meta-analysis*. Depress Anxiety 2009; 26; 279-88.
57. Gallo JJ, Bogner HR, Morales KH, et al. *The effect of a primary care practice-based depression intervention on mortality in older adults: a randomized trial*. Ann Intern Med 2007; 146: 689-698.
58. Katon Wj, Schoenbaum M, Fan MY. *Cost-effectiveness of improving primary care treatment of late-life depression*. Arch Gen Pscyhiatry 2005; 62: 11313-1320.
59. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006.
60. *Practice Guideline for Treatment of Patients with Major Depressive Disorder*- Third Edition APA. Available at: http://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/mdd.pdf
61. Mukai Y, Tampi RR. *Treatment of depression in the elderly: a review of the recent literature on the efficacy of single-versus dual-action antidepressants.* Clin Ther. 2009;31:945-961.
62. Frank, C. *Pharmacologic treatment of depression in the elderly*. Canadian Family Physician. 2014; 60: 121-126.
63. O'Connor MK, Knapp R, Husain M et al. *The influence of age on the response of major depression to electroconvulsive therapy: a CORE report*. Am J Geriatr Psychiatry 2001; 9: 382-390.
64. Taylor, WD. *Depression in the Elderly*. N Engl J Med 2014; 371: 1228-36.
65. Slotema CW, Blom JD, Hoek HW, et al. *Shall we expand the toolbox of psychiatric treatment methods to include repetitive transcranial magnetic stimulation (rTMS)? A meta-analysis of the efficacy of rTMS in psychiatric disorders*. J Clin Psychiatry 2010; 71: 873-84.
66. Pallanti S, Cantisani A, Grassi G, et al. *rTMS age-dependent response in treatment-resistant depressed subjects: a mini-review*. CNS Spectr 2012; 17; 24-30.
67. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006.
68. Rodda J, Walker Z, Carter J. *Depression in older adults*. BMJ 2011; 343: d5219.
69. Canadian Agency for Drugs and Technologies in Health. Rapid Response Report: Summary with Critical Appraisal. *Antidepressants in Elderly Patients with Major and Minor Depression: A Review of Clinical Effectiveness and Guidelines*. Released August 17, 2015.

70. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006.
71. Canadian Agency for Drugs and Technologies in Health. Rapid Response Report: Summary with Critical Appraisal. *Antidepressants in Elderly Patients with Major and Minor Depression: A Review of Clinical Effectiveness and Guidelines*. Released August 17, 2015.
72. Roose SP, Sackeim HA, Krishnan KR, et al. *Antidepressant pharmacotherapy in the treatment of depression in the very old: a randomized, placebo-controlled trial*. Am J Psychiatry. 2004;161:2050-2059.
73. Bose A, Li D, Gandhi C. *Escitalopram in the acute treatment of depressed patients aged 60 years or older*. Am J Geriatr Psychiatry. 2008;16:14-20.
74. Kasper S, de Swart H, Friis Andersen H. *Escitalopram in the treatment of depressed elderly patients*. Am J Geriatr Psychiatry. 2005;13:884-891.
75. Seitz DP, Gill SS, Conn DK. *Citalopram versus other antidepressants for late-life depression: a systematic review and meta-analysis*. Int J Geriatr Psychiatry. 2010;25:1296-1305.
76. Tollefson GD, Bosomworth JC, Heiligenstein JH, et al. *A double-blind, placebo-controlled clinical trial of fluoxetine in geriatric patients with major depression*. The Fluoxetine Collaborative Study Group. Int Psychogeriatr. 1995;7:89-104.
77. Rapaport MH, Schneider LS, Dunner DL, et al. *Efficacy of controlled-release paroxetine in the treatment of late-life depression*. J Clin Psychiatry. 2003;64:1065-1074.
78. Robinson Rg, Spalletta G. *Poststroke depression: a review*. Can J Psychiatry 2010; 55: 341-9.
79. Green La, Dickinson WP, Nease De et al. *AAFP guideline for the detection and management of post-myocardial infarction after depression*. Ann Fam Med 2009; 7: 71-9.
80. Robinson RG, Jorge RE, Moser DJ et al. *Escitalopram and problem-solving therapy for prevention of postroke depression: a randomized controlled trial*. JAMA 2008; 299:2391-2400.
81. Liu BA, Mittmann N, Knowles SR, et al. *Hyponatremia and the syndrome of inappropriate secretion of antidiuretic hormone associated with the use of selective serotonin reuptake inhibitors: a review of spontaneous reports*. CMAJ 1996; 155: 519-527.
82. Movig KL, Leufkens HG, Lenderink SW et al. *Association between antidepressant drug and hyponatremia: a case-control study*. Br J Clin Pharmacol 2002; 53: 363-369.
83. Rodda J, Walker Z, Carter J. *Depression in older adults*. BMJ 2011; 343: d5219.
84. Nelson J, Delucchi K, Schneider L. *Efficacy of second generation antidepressants in late-life depression: a meta-analysis of the evidence*. Am J Geriatr Psychiatry. 2008;16:558-67.
85. Driscoll HC, Karp JF, Dew MA. *Getting better, getting well: understanding and managing partial and non-response to pharmacological treatment of non-psychotic major depression in old age.* Drugs Aging 2007; 24: 801-814.
86. Dew MA, Whyte EM, Lenze EJ. *Recovery from major depression in older adults receiving augmentation of antidepressant pharmacotherapy*. Am J Psychiatry 2007; 164: 892-899.
87. Mandelli L, Serretti A, Zanardi R et al. *Antidepressant response in the elderly*. Psychiatry Res 2007; 152:37-44.
88. Driscoll HC, Basinski J, Mulsant BH et al. *Late-onset major depression: clinical and treatment-response variability.* Int J Geriatr Psychiatry 2005; 20: 661-667.
89. Procyshyn RM, Bezchilbnyk-Butler, Jeffries J. *Clinical Handbook of Psychotropic Drugs- 21st Edition (2015)*. Hogrefe Publishing.
90. Katona C, Hansen T, Olsen K. *A randomized, double-blind, placebo-controlled, duloxetine-referenced, fixed-dose study comparing t he efficacy and safety of Lu AA21004 I elderly patients with major depressive disorder*. International Clinical Psychopharmacology 2012; 27: 215–223.
91. Procyshyn RM, Bezchilbnyk-Butler, Jeffries J. *Clinical Handbook of Psychotropic Drugs- 21st Edition (2015)*. Hogrefe Publishing.
92. Leonard D, Karlamangla A. *Dose-Dependent Sedating and Stimulating Effects of Mirtazapine*. Processdings of UCLA Healthcare. 2015 (19).

93. Havretsky H, Reinlieb M, St. Cyr N et al. *Citalopram, methylphenidate, or their combination in geriatric depression: a randomized, double-blind, placebo-controlled trial*. Am J Psychiatry 2015; 172: 6: 561-569.
94. Canadian Coalition for Seniors' Mental Health. *National guidelines for seniors' mental health*. Toronto, ON: Canadian Coalition for Seniors' Mental Health; 2006.
95. Mittal V, Kurup L, Williamson D, Muralee S, Tampi RR. *Risk of cerebrovascular adverse events and death in elderly patients with dementia when treated with antipsychotic medications: a literature review of evidence*. Am J Alzheimers Dis Other Demen 2011;26:10-28. Accessed 29 Sep 2011 at http://aja.sagepub.com/content/26/1/10.abstract?rss=1
96. Schneider LS, Tariot PN, Dagerman KS, Davis SM, Hsiao JK, Ismail MS, et al. *Effectiveness of atypical antipsychotic drugs in patients with Alzheimer's disease*. NEJM 2006; 355:1525-1538. CATIE-AD
97. Schneider LS, Tariot PN, Dagerman KS, Davis SM, Hsiao JK, Ismail MS, et al. *Effectiveness of atypical antipsychotic drugs in patients with Alzheimer's disease*. NEJM 2006; 355:1525-1538. CATIE-AD
98. Health Canada Advisory. *Health Canada advises consumers about important safety information on atypical antipsychotic drugs and dementia*. June 15, 2005. http://www.hc-sc.gc.ca/ahc-asc/media/advisoriesavis/_2005/2005_63-eng.php
99. FDA Public Health Advisory: *Deaths with Antipsychotics in Elderly Patients with Behavioral Disturbances*. Available: http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/DrugSafetyInformationforHeathcareProfessionals/PublicHealthAdvisories/ucm053171.htm
100. Smith TG. *Antipsychotics in dementia - mortality risks and strategies to reduce prescribing*. Evid Based Ment Health. 2011 Mar 31.
101. Schneider LS, Dagerman KS, Insel P. *Risk of death with atypical antipsychotic drug treatment for dementia: meta-analysis of randomized placebo controlled trials*. JAMA. 2005;294:1934-43.

1. National Insititute for Health Care and Excellence. *Clinical Knowledge Summaries: Insomnia*. Revised 2009. Available: http://cks.nice.org.uk/insomnia#!scenariorecommendation:1
2. Toward Optimized Practice (TOP) Insomnia Group. 2015 December. *Assessment to management of adult insomnia: clinical practice guideline*. Edmonton AB: Toward Optimized Practice. Available from: http://www.topalbertadoctors.org
3. Qaseem A, Kansagara D, Forciea M, Cooke M, Denberg T. *Management of chronic insomnia disorder in adults: A clinical practice guideline from the American College of Physicians*. Ann Intern Med. 2016;165(2):125-33.
4. Schutte-Rodin S, Broch L, Buysse D, Dorsey C, Sateia M. *Clinical guideline for the evaluation and management of chronic insomnia in adults*. J Clin Sleep Med 2008;4(5):487-504.
5. Sateia MJ, Buysse DJ, Krystal AD, Neubauer DN, Heald JL. *Clinical practice guideline for the pharmacologic treatment of chronic insomnia in adults: an American Academy of Sleep Medicine clinical practice guideline*. J Clin Sleep Med. 2017;13(2):307–349.
6. American Psychiatric Association (2013) *Diagnostic and Statistical Manual of Mental Disorders (5th Ed.)* Arlington, VA: American Psychiatric Publishing.
7. Morin CM, Colecchi C, Stone J, Sood R, Brink D. *Behavioral and pharmacological therapies for late-life insomnia: a randomized controlled trial*. JAMA. 1999 Mar 17;281(11):991-9. PubMed PMID: 10086433.
8. Joshi S. *Non-pharmacological therapy for insomnia in the elderly*. Clinics Geriatr Med 2008;24:107– 119.
9. Laine C, Goldman D, Wilson JF. *In the clinic: Insomnia*. Ann Int Med 2008;148(1):ITC13-1– ITC13-16. [PubMed: 18166757]
10. Zee P, Bloom HG. *Understanding and resolving insomnia in the elderly*. Geriatrics 2006;61(5)Special section1-12
11. Joshi S. *Non-pharmacological therapy for insomnia in the elderly*. Clinics Geriatr Med 2008;24:107– 119.
12. Manabe K, Matsui T, Yamaya M, et al. *Sleep patterns and mortality among elderly patients in a geriatric hospital*. Gerontology 2000;46:318–322. [PubMed: 11044786]
13. Fetveit A, Bjorvatn B. *Sleep disturbances among nursing home residents*. Internat J Geriatr Psychiatry 2002;17:604–609.
14. Ersser S, Wiles A, Taylor H, et al. *The sleep of older people in hospital and nursing homes*. J Clin Nursing 1999;8:360–368.
15. Glass J, Lanctôt KL, Herrmann N, Sproule BA, Busto UE. *Sedative hypnotics in older people with insomnia: meta-analysis of risks and benefits*. BMJ. 2005 Nov 19;331(7526):1169.
16. Buscemi N, Vandermeer B, Friesen C et al. *The Efficacy and Safety of Drug Treatments for Chronic Insomnia in Adults: a meta-analysis of RCTs*. JGIM 2007; 22: 1335-1350.
17. Hardeland R. *Neurobiology, pathophysiology, and treatment of melatonin deficiency and dysfunction*. ScientificWorldJournal. 2012;2012:640389.
18. Ferracioli-Oda E, Qawasmi A, Bloch MH. *Meta-analysis: melatonin for the treatment of primary sleep disorders*. PLOS ONE 2013; 8(5): e63773
19. Wright A, Diebold J, Otal J, et al. *The effect of melatonin on benzodiazepine discontinuation and sleep quality in adults attempting to discontinue benzodiazepines: A systematic review and meta-analysis*. Drugs Aging. 2015 Dec;32(12):1009-18
20. Spinweber CL. *L-tryptophan administered to chronic sleep-onset insomniacs: late-appearing reduction of sleep latency*. Psychopharmacology (Berl). 1986;90(2):151-5. PubMed PMID: 3097693.
21. Schneider-Helmert D, Spinweber CL. *Evaluation of L-tryptophan for treatment of insomnia: a review*. Psychopharmacology (Berl). 1986;89(1):1-7. PubMed PMID: 3090582.
22. Richardson GS, Roehrs TA, Rosenthal L, Koshorek G, Roth T. *Tolerance to daytime sedative effects of H1 antihistamines*. J Clin Psychopharmacol 2002;22:511–515.

23. Meolie AL, Rosen C, Kristo D, Kohrman M, Gooneratne N, Aguillard RN, Fayle R, Troell R, Townsend D, Claman D, Hoban T, Mahowald M; Clinical Practice Review Committee; American Academy of Sleep Medicine. *Oral nonprescription treatment for insomnia: an evaluation of products with limited evidence*. J Clin Sleep Med. 2005 Apr 15;1(2):173-87. Review. PubMed PMID: 17561634.
24. Thompson W, Quay T, Rojas-Fernandez C, Farrell B, Bjerre L. *Atypical antipsychotics for insomnia: a systematic review*. Sleep Med. 2016;22:13-17.
25. Yi X, Ni S, Ghadami M, Meng H, Chen M, Kuang L, et al. *Trazodone for the treatment of insomnia: a meta-analysis of randomized placebo-controlled trials*. Sleep Med. 2018;45:25-32.
26. Alberta Health Services. *Gravol*. 2010. Available: http://www.albertahealthservices.ca/addictionssubstanceabuse/hi-asa-abcs-gravol.pdf
27. Richardson GS, Roehrs TA, Rosenthal L, Koshorek G, Roth T. *Tolerance to daytime sedative effects of H1 antihistamines*. J Clin Psychopharmacol 2002;22:511–515.
28. Mittal V, Kurup L, Williamson D, Muralee S, Tampi RR. *Risk of cerebrovascular adverse events and death in elderly patients with dementia when treated with antipsychotic medications: a literature review of evidence*. Am J Alzheimers Dis Other Demen 2011;26:10-28. Accessed 29 Sep 2011 at http://aja.sagepub.com/content/26/1/10.abstract?rss=1
29. Schneider LS, Tariot PN, Dagerman KS, Davis SM, Hsiao JK, Ismail MS, et al. *Effectiveness of atypical antipsychotic drugs in patients with Alzheimer's disease*. NEJM 2006; 355:1525-1538. CATIE-AD
30. Schneider LS, Tariot PN, Dagerman KS, Davis SM, Hsiao JK, Ismail MS, et al. *Effectiveness of atypical antipsychotic drugs in patients with Alzheimer's disease*. NEJM 2006; 355:1525-1538. CATIE-AD
31. Health Canada Advisory. *Health Canada advises consumers about important safety information on atypical antipsychotic drugs and dementia.* June 15, 2005. http://www.hc-sc.gc.ca/ahc-asc/media/advisoriesavis/_2005/2005_63-eng.php
32. FDA Public Health Advisory: *Deaths with Antipsychotics in Elderly Patients with Behavioral Disturbances*. Available: http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/DrugSafetyInformationforHeathcareProfessionals/PublicHealthAdvisories/ucm053171.htm
33. Smith TG. *Antipsychotics in dementia - mortality risks and strategies to reduce prescribing*. Evid Based Ment Health. 2011 Mar 31.
34. Schneider LS, Dagerman KS, Insel P. *Risk of death with atypical antipsychotic drug treatment for dementia: meta-analysis of randomized placebo controlled trials*. JAMA. 2005;294:1934-43.
35. *Sublinox Product Monograph*. Prepared by: MEDA AB - Solna, Sweden. Date of Preparation: August 16th, 2012.

Additional References:

- Bloom HG, Ahmed I, Alessi CA, Ancoli-Israel S, Buysse DJ, Kryger MH, Phillips BA, Thorpy MJ, Vitiello MV, Zee PC. *Evidence-based recommendations for the assessment and management of sleep disorders in older persons*. J Am Geriatr Soc. 2009 May;57(5):761-89. Review. PubMed PMID: 19484833; PubMed Central PMCID: PMC2748127.
- National Institutes of Health. *National Institutes of Health State of the Science Conference statement on Manifestations and Management of Chronic Insomnia in Adults*, June 13-15, 2005. Sleep. 2005 Sep;28(9):1049-57. PubMed PMID: 16268373.

RESPIRATORY

COPD in Older Adults

1. O'Donnell DE, Aaron S, Bourbeau J, Hernandez P, et al. *Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease – 2007 update*. Can Respir J. 2007 Sep;14 Suppl B:5B-32B.
2. Vestbo J, Hurd SS, Agustí AG, Jones PW, Vogelmeier C, Anzueto A, Barnes PJ, Fabbri LM, Martinez FJ, Nishimura M, Stockley RA, Sin DD, Rodriguez-Roisin R. *Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease: GOLD executive summary*. Am J Respir Crit Care Med. 2013 Feb 15;187(4):347-65.
3. Criner GJ, Bourbeau J, Diekemper RL, et al. *Executive Summary: Prevention of Acute Exacerbation of COPD: American College of Chest Physicians and Canadian Thoracic Society Guideline*. Chest. 2015 Apr 1;147(4):883-93.
4. *Global Strategy for Diagnosis, Management, and Prevention of COPD Update 2015* http://www.goldcopd.org/guidelines-global-strategy-for-diagnosis-management.html accessed March 2015
5. Anthonisen, Nicholas R., et al. *The effects of a smoking cessation intervention on 14.5-year mortality: a randomized clinical trial*. Annals of internal medicine 2005;142(4):233-239.
6. Godtfredsen NS, et al. *COPD-related morbidity and mortality after smoking cessation: status of the evidence*. European Respiratory Journal 2008;32(4):844-853.
7. Fletcher C, Peto R. *The natural history of chronic airflow obstruction*. BMJ 1977;1(6077):1645-1648.
8. Wongsurakiat, Phunsup, et al. *Acute respiratory illness in patients with COPD and the effectiveness of influenza vaccination: a randomized controlled study*. CHEST Journal 2004 125(6):2011-2020.
9. Nichol, KL, Baken L, Nelson A. *Relation between influenza vaccination and outpatient visits, hospitalization, and mortality in elderly persons with chronic lung disease*. Annals of internal medicine 130.5 (1999): 397-403.
10. Mapel DW, Dalal AA, Johnson P, Becker L, Hunter AG. *A clinical study of COPD severity assessment by primary care physicians and their patients compared with spirometry*. Am J Med 2015;128(6):629-637.
11. Criner GJ, Bourbeau J, Diekemper RL, et al. *Executive Summary: Prevention of Acute Exacerbation of COPD: American College of Chest Physicians and Canadian Thoracic Society Guideline*. Chest. 2015 Apr 1;147(4):883-93.
12. Vogelmeier, C., Hederer, B et al. *Tiotropium versus salmeterol for the prevention of exacerbations of COPD*. New England Journal of Medicine, 2011;364(12):1093-1103.
13. Gwynne M, Mounsey A. *Would this long-acting bronchodilator be better for your patient?* Hickner J, ed. The Journal of Family Practice. 2012;61(2):94-96.
14. Rodrigo GJ, Neffen H. *Comparison of indacaterol with tiotropium or twice-daily long-acting β-agonists for stable COPD: a systematic review*. CHEST Journal 2011;142(5):1104-1110.
15. *Spiriva product monograph*
16. *Indacaterol product monograph*
17. Chong J, Karner C, Poole P. *Tiotropium versus long-acting beta-agonists for stable chronic obstructive pulmonary disease*. Cochrane Database Syst Rev 2012; 9:CD009157
18. *Spiriva product monograph*
19. Rodrigo GJ, Plaza V, Castro-Rodríguez, JA. *Comparison of three combined pharmacological approaches with tiotropium monotherapy in stable moderate to severe COPD: a systematic review*. Pulmonary pharmacology & therapeutics 2012;25(1): 40-47.

20. Calverley PM, Anderson JA, Celli B, Ferguson GT, Jenkins C, Jones P W, ... & Vestbo J. *Salmeterol and fluticasone propionate and survival in chronic obstructive pulmonary disease*. New England Journal of Medicine, 2007;356(8):775-789.
21. Rodrigo GJ, Plaza V, Castro-Rodríguez JA. *Comparison of three combined pharmacological approaches with tiotropium monotherapy in stable moderate to severe COPD: a systematic review*. Pulmonary pharmacology & therapeutics 2012;25(1): 40-47.
22. Bateman ED, Van Dyk M, Sagriotis A. *Comparable spirometric efficacy of tiotropium compared with salmeterol plus fluticasone in patients with COPD: a pilot study.* Pulmonary pharmacology & therapeutics 2008;21(1):20-25.
23. Wedzicha JA, et al. *Indacaterol-Glycopyrronium versus Salmeterol-Fluticasone for COPD*. The New England Journal of Medicine. 2016. 374(23):2222-2234.
24. Lipson DA, et al. *Once-daily single-inhaler triple versus dual therapy in patients with COPD*. New England Journal of Medicine 378.18 (2018): 1671-1680.
25. Magnussen H, et al. *Withdrawal of inhaled glucocorticoids and exacerbations of COPD*. New England Journal of Medicine 371.14 (2014): 1285-1294.
26. Coventry PA, & Hind D. *Comprehensive pulmonary rehabilitation for anxiety and depression in adults with chronic obstructive pulmonary disease: Systematic review and meta-analysis*. Journal of psychosomatic research, 2007;63(5):551-565.
27. Criner GJ, Bourbeau J, Diekemper RL, et al. *Executive Summary: Prevention of Acute Exacerbation of COPD: American College of Chest Physicians and Canadian Thoracic Society Guideline*. Chest. 2015 Apr 1;147(4):883-93.
28. Puhan MA, et al. *Pulmonary rehabilitation following exacerbations of chronic obstructive pulmonary disease*. Cochrane Database Syst Rev 2011;10:10.
29. Bourbeau J, and Bartlett SJ. *Patient adherence in COPD*. Thorax 2008;63(9): 831-838.
30. Molimard M. *How to achieve good compliance and adherence with inhalation therapy*. Current Medical Research and Opinion 2005;21:S33-S37.
31. Molimard M, Raherison C, Lignot S, Depont F, Abouelfath A, & Moore N. *Assessment of handling of inhaler devices in real life: an observational study in 3811 patients in primary care*. Journal of aerosol medicine, 2003;16(3):249-254.
32. O'Donnell DE, Aaron S, Bourbeau J, Hernandez P, et al. *Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease – 2007 update*. Can Respir J. 2007 Sep;14 Suppl B:5B-32B.
33. *SAIL Oxygen Tester's Handbook 2012 edition* available at https://sk.lung.ca/testers/study/Tester_Handbook.pdf accessed March 2015
34. O'Donnell DE, Aaron S, Bourbeau J, Hernandez P, et al. *Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease – 2007 update*. Can Respir J. 2007 Sep;14 Suppl B:5B-32B.
35. Criner GJ, Bourbeau J, Diekemper RL,et al. *Executive Summary: Prevention of Acute Exacerbation of COPD: American College of Chest Physicians and Canadian Thoracic Society Guideline*. Chest. 2015 Apr 1;147(4):883-93.
36. McCrory DC, Brown CD. *Anti-cholinergic bronchodilators versus beta2-sympathomimetic agents for acute exacerbations of chronic obstructive pulmonary disease*. Cochrane Database Syst Rev 2002; :CD003900.
37. Leuppi JD, Schuetz P, Bingisser R, Bodmer M, Briel M, Drescher T, Duerring U, Henzen C, Leibbrandt Y, Maier S, Miedinger D, Müller B, Scherr A, Schindler C, Stoeckli R, Viatte S, von Garnier C, Tamm M, Rutishauser J. *Short-term vs conventional glucocorticoid therapy in acute exacerbations of chronic obstructive pulmonary disease: the REDUCE randomized clinical trial*. JAMA. 2013 Jun 5;309(21):2223-31. doi: 10.1001/jama.2013.5023. PubMed PMID: 23695200.
38. *Global Strategy for Diagnosis, Management, and Prevention of COPD Update 2015*. http://www.goldcopd.org/guidelines-global-strategy-for-diagnosis-management.html accessed March 2015
39. Mapel DW, Dedrick D, and Davis K. *Trends and cardiovascular co-morbidities of COPD patients in the Veterans Administration Medical System, 1991–1999*. COPD: Journal of Chronic Obstructive Pulmonary Disease 2005 2(1):35-41.
40. Celli BR et al. *Predictors of Survival in COPD: More than Just the FEV1*. Respir Med 2008;102(Suppl 1):S27.
41. Hansen-Flaschen J. *Chronic obstructive pulmonary disease: the last year of life*. Respiratory care 49.1 (2004): 90-98.

42. Lanken PN, et al. *An official American Thoracic Society clinical policy statement: palliative care for patients with respiratory diseases and critical illnesses.* American journal of respiratory and critical care medicine 177.8 (2008): 912-927.
43. Emanuel EJ. *Palliative and End-of-Life Care*. In: Kasper D, Fauci A, Hauser S, Longo D, Jameson J, Loscalzo J. eds. Harrison's Principles of Internal Medicine, 19e. New York, NY: McGraw-Hill; 2015.
44. Lueppi JD, Schuetz P, BingisserR, et al. *Short-term vs conventional glucocorticoid therapy in acute exacerbations of chronic obstructive pulmonary disease: the REDUCE randomised clinical trial*. JAMA 2013;309:2223-31

RESPIRATORY

How to Pick an Inhaler

1. *A Guide to Spirometry for Primary Care Physicians* by Dr. J. Lowry
2. Dolovich MB, Ahrens RC, Hess DR, et al. *Device selection & outcomes of aerosol therapy: evidence-based guidelines: American College of Chest Physicians/American College of Asthma, Allergy, and Immunology*. Chest 2005 Jan;127(1):335-71.
3. Self TH, Pinner NA, Sowell RS, Headley AS. *Does it really matter what volume to exhale before using asthma inhalation devices?*. J Asthma. 2009 Apr;46(3):212-6. 4. National Asthma.org Inhaler Technique http://www.nationalasthma.org.au/uploads/content/237-Inhaler_technique_in_adults_with_asthma_or_COPD.pdf
5. Bourbeau J, and Bartlett SJ. *Patient adherence in COPD*. Thorax 2008;63(9): 831-838.
6. Molimard M. *How to achieve good compliance and adherence with inhalation therapy*. Current Medical Research and Opinion 2005;21:S33-S37.
7. Molimard M, Raherison C, Lignot S, Depont F, Abouelfath A, & Moore N. *Assessment of handling of inhaler devices in real life: an observational study in 3811 patients in primary care*. Journal of aerosol medicine, 2003;16(3):249-254.
8. Demoly P, Hagedoorn P, de Boer AH, Frijlink HW. *The clinical relevance of dry powder inhaler performance for drug delivery*. Respir Med. 2014 Aug;108(8):1195-203.
9. Cegla UH. *Pressure and inspiratory flow characteristics of dry powder inhalers.* Respiratory medicine. 2004 Apr 1;98:S22-8.
10. Magnussen H, Watz H, Zimmermann I, Macht S, Greguletz R, Falques M, Jarreta D, Garcia Gil E. *Peak inspiratory flow through the Genuair inhaler in patients with moderate or severe COPD*. Respir Med. 2009 Dec;103(12):1832-7.
11. Lexicomp Online, Pediatric and Neonatal Lexi-Drugs Online, Hudson, Ohio: Wolters Kluwer Clinical Drug Information, Inc.; 2018; August 10, 2018. *Product monographs for salbutamol, tiotropium, salmeterol, umeclidinium, aclidinium, formoterol, budesonide, and glycopyrronium*.
12. Chapman KR, Fogarty CM, Peckitt C, Lassen C, Jadayel D, Dederichs J, Dalvi M, Kramer B. *Delivery characteristics and patients' handling of two single-dose dry-powder inhalers used in COPD*. Int J Chron Obstruct Pulmon Dis. 2011;6:353-63.

RESPIRATORY

ASTHMA & COPD: Inhaler Technique

- Photograph: Respimat at Inhalation provided by Boehringer Ingelheim. Accessed via: http://www.respimat.com/services/services/photographs.html on July 22, 2015. Copyright 2003 Boehringer Ingelheim GmbH, Germany.
- *Ventolin HFA*. Product monograph. Copyright 2014 GlaxoSmithKline, Inc.
- *Combivent Respimat*. Product monograph. Copyright 2014 Boehringer Ingelheim (Canada) Ltd.
- *Spiriva*. Product monograph. Copyright 2012 Boehringer Ingelheim (Canada) Ltd.
- *Onbrez Breezhaler*. Product monograph. Copyright 2015 Novartis Pharmaceuticals Canada Inc.
- *Symbicort Turbuhaler*. Product monograph. Copyright 2012 AstraZeneca Canada Inc.
- *Advair Diskus*. Product monograph. Copyright 2014 GlaxoSmithKline, Inc.
- *Tudorza Genuair*. Product monograph. Copyright 2015 AstraZeneca Canada Inc.
- *Breo Ellipta*. Product monograph. Copyright 2014 GlaxoSmithKline Inc.
- *Inhalations for Asthma Patients*. Retrieved from http://zaversky.at/thema/inhalation.php ; accessed August 2015.
- *Advair Diskus*. Aidarex Pharmaceuticals LLC. Retrieved: http://dailymed.nlm.nih.gov/dailymed/fda/fdaDrugXsl.cfm?setid=f53cb2d5-3267-401e-9393-dff8357830dd&type=display ; accessed Aug'15.
- Photograph: Respimat at Inhalation provided by Boehringer Ingelheim. Accessed via: http://www.respimat.com/services/services/photographs.html on July 22, 2015. Copyright ©2003 Boehringer Ingelheim GmbH, Germany.
- Haughney, John, et al. *Choosing inhaler devices for people with asthma: current knowledge and outstanding research needs*. Respiratory Medicine CME 3.3 (2010): 125-131.
- *Foradil*. Product monograph. Copyright 2013 Novartis Pharmaceuticals Canada Inc.
- Maricoto T, Monteiro L, Gama JMR, et al. *Inhaler Technique Education and Exacerbation Risk in Older Adults with Asthma or Chronic Obstructive Pulmonary Disease: A Meta-Analysis*. J Am Geriatr Soc. 2018 Oct 6.

MISCELLANEOUS

Dermatology in Older Adults

1. Linos E, Chren M, Covinsky K. *Geriatric Dermatology—A Framework for Caring for Older Patients With Skin Disease*. JAMA Dermatol. 2018;154(7):757–758. doi:10.1001/jamadermatol.2018.0286
2. Dhadwal G, Albrecht L, Gniadecki R, et al. *Approach to the assessment and management of adult patients with atopic dermatitis: a consensus document*. Section IV: Treatment options for the management of atopic dermatitis. J Cutan Med Surg 2018;22(1S):21S-29S. https://journals.sagepub.com/doi/pdf/10.1177/1203475418805721 (accessed December 4, 2018).
3. Fu L, Vender R. *Systemic role for vitamin D in the treatment of psoriasis and metabolic syndrome*. Dermatol Res Pract. 2011;276079.

Psoriasis

- Balato N, Patruno C, Napolitano M, Patrì A, Ayala F, & Scarpa R. (2014). *Managing moderate-to-severe psoriasis in the elderly*. Drugs & Aging, 31(4), 233-8.
- Grozdev IS, Van Voorhees AS, Gottlieb AB, Hsu S, Lebwohl MG, Bebo BF Jr, Korman NJ; National Psoriasis Foundation. *Psoriasis in the elderly: from the Medical Board of the National Psoriasis Foundation*. J Am Acad Dermatol. 2011 Sep;65(3):537-45.
- Canadian Psoriasis Guidelines Committee. *Canadian Guidelines for the Management of Plaque Psoriasis*, June 2009. http://www.dermatology.ca/psoriasisguidelines
- Chimenti MS, Esposito M, Giunta A, et al. *Psoriatic arthritis: AB0942 Efficacy and safety of subcutaneous anti-TNF alpha, etanercept and adalimumab, in elderly patients affected by psoriasis and psoriatic arthritis: An observational long term study*. Ann Rheum Dis 2013 71, Suppl 3 692.
- Hayashi M, Umezawa Y, Fukuchi O, Ito T, Saeki H, and Nakagawa H. (2014). *Efficacy and safety of ustekinumab treatment in elderly patients with psoriasis*. The Journal of Dermatology, 41:974–980.
- Milavec-Puretić V, Mance M, Ceović R, Lipozenčić J. *Drug induced psoriasis*. Acta Dermatovenerologica Croatica: ADC [serial online]. 2011;19(1):39-42.
- Law RM, Gulliver WP. Chapter 78. *Psoriasis*. In: DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey L. eds. Pharmacotherapy: A Pathophysiologic Approach, 9e. New York, NY: McGraw-Hill; 2014. http://accesspharmacy.mhmedical.com.cyber.usask.ca/content.aspx?bookid=689&Sectionid=48811483 . Accessed April 27, 2016.
- Langley R. Psoriasis. RxTx. 2019, accessed July 30, 2019.

Pruritus & Xerosis

- Yosipovitch G, & Bernhard JD. (2013). *Chronic pruritus*. The New England Journal of Medicine, 368(17), 1625-1634.
- Berger TG, Shive M, Harper G. *Pruritus in the Older Patient: A Clinical Review*. JAMA.2013;310(22):2443-2450.
- Roberts WE. *Dermatologic problems of older women*. Dermatol Clin 2006; 24: 271–280
- Adis Medical Writers. *Manage chronic pruritus in the elderly with various agents depending on the pathophysiology and aetiology of the condition*. Drugs & Therapy Perspectives, 31(9), 302-306.
- Reich A, Ständer S, Szepietowski J. *Drug-induced pruritus: a review*. Acta Dermato-Venereologica [serial online]. 2009;89(3):236-244.
- Makari J, Cameron K, Battistella M. *Understanding pruritis in dialysis patients*. CANNT Journal [serial online]. January 2013;23(1):19-23 5p.
- Eschler DC, Klein PA. *An evidence-based review of the efficacy of topical antihistamines in the relief of pruritus*. J Drugs Dermatol. 2010 Aug;9(8):992-7. Review.

Pressure Ulcers

- National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, Pan Pacific Pressure Injury Alliance. *Treatment of pressure ulcers*. In: Prevention and treatment of pressure ulcers: clinical practice guideline. Washington (DC): National Pressure Ulcer Advisory Panel; 2014. p. 126-208.
- National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, Pan Pacific Pressure Injury Alliance. I*nterventions for prevention and treatment of pressure ulcers*. In: Prevention and treatment of pressure ulcers: clinical practice guideline. Washington (DC): National Pressure Ulcer Advisory Panel; 2014. p. 79-125.
- National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, Pan Pacific Pressure Injury Alliance. *Prevention of pressure ulcers*. In: Prevention and treatment of pressure ulcers: clinical practice guideline. Washington (DC): National Pressure Ulcer Advisory Panel; 2014. p. 42-78.
- National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, Pan Pacific Pressure Injury Alliance. *Special populations*. In: Prevention and treatment of pressure ulcers: clinical practice guideline. Washington (DC): National Pressure Ulcer Advisory Panel; 2014. p. 209-52.
- *Canadian Best Practice Guidelines for the Prevention and Management of Pressure Ulcers in People with Spinal Cord Injury*
- Raetz JG, Wick KH. *Common Questions About Pressure Ulcers*. Am Fam Physician. 2015 Nov 15;92(10):888-94.
- Qaseem A, Mir TP, Starkey M, Denberg TD; Clinical Guidelines Committee of the American College of Physicians. *Risk assessment and prevention of pressure ulcers: a clinical practice guideline from the American College of Physicians*. Ann Intern Med. 2015 Mar 3;162(5):359-69.
- Fish DN, Pendland SL. *Chapter 88. Skin and Soft-Tissue Infections*. In: DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey L. eds. Pharmacotherapy: A Pathophysiologic Approach, 9e. New York, NY: McGraw-Hill; 2014. http://accesspharmacy.mhmedical.com.cyber.usask.ca/content.aspx?bookid=689&Sectionid=45310534 . Accessed April 28, 2016.
- Langer G, Fink A. *Nutritional interventions for preventing and treating pressure ulcers*. Cochrane Database of Systematic Reviews 2014, Issue 6. Art. No.: CD003216.

Chronic Urticaria

- Ventura MT, Napolitano S, Buquicchio R, et al. *An approach to urticaria in the elderly patients*. Immunopharmacology and Immunotoxicology, 34(3), 2012.
- Ventura MT, Cassano N, Romita P, et al. (2015). *Management of Chronic Spontaneous Urticaria in the Elderly*. Drugs & Aging, 32(4), 271-82.
- Joint Task Force on Practise Parameters. *The diagnosis and management of acute and chronic urticaria: 2014 update*.
- http://www.jacionline.org/article/S0091-6749(14)00335-2/pdf
- *Omalizumab (xolair) product monograph*
- PL Detail-Document, *H2-Blockers for Chronic Urticaria*. Pharmacist's Letter/Prescriber's Letter. October 2014

Fragile Skin and Sun

- *Sun Protection* – World Health Organization http://www.who.int/uv/publications/en/primaryteach.pdf
- Miner, K., Katz, M. Razor, B. *Skin Tear Prevention and Management*. Nevada Information [serial online]. November 2009;18(4):14-14 1p. Available from: CINAHL Plus with Full Text, Ipswich, MA. Accessed April 29, 2016.

Others:

- Sibbald D. Dandruff and Seborrheic Dermatitis. RxTx. 2019. Accessed July 30, 2019
- Khandpur S, Verma P. *Bullous pemphigoid*. Indian J Dermatol Venereol Leprol [serial online] 2011 [cited 2016 Apr 29];77:450-5.

MISCELLANEOUS

Drug Interactions in Older Adults

- *Types of drug interaction*. Available: http://www.aidsmap.com/Types-of-drug-interaction/page/1730473/
- Wooten J. *Pharmacotherapy Considerations in Elderly Adults*. Medscape. South Med J. 2012; 105(8):437-445. Accessed August 30th, 2015.
- Patel S. *Geriatric Pharmacotherapy: A Focus on Medication-Related Emergency Room Admissions in the Elderly*. For Emergency Medicine & Complex Continuing Care Services. Orillia Soldiers' Memorial Hospital. February 1, 2015.
- Shah BM, Hajjar ER. *Polypharmacy, adverse drug reactions, and geriatric syndromes*. Clin Geriatr Med. 2012 May;28(2):173-86.
- Lindblad CI, Hanlon JT, Gross CR, et al. *Clinically important drug-disease interactions and their prevalence in older adults*. Clin Ther. 2006 Aug;28(8):1133-43.
- Horn J, Hansten P. *Which Drug Interactions Matter in Older Adults?*. Pharmacy Times. May 2012.
- Horn J, Hansten P. *Get to Know an Enzyme: CYP3A4*. Pharmacy Times. Sept 2008.
- Horn J, Hansten P. *Drug Transporters: The Final Frontier for Drug Interactions*. Dec 2008.
- PL Detail-Document, *Cytochrome P450 Drug Interactions*. Pharmacist's Letter/Prescriber's Letter. October 2013.

Additional References:

- PL Detail-Document, *OATP Drug Interactions*. Pharmacist's Letter/Prescriber's Letter. March 2014.

MISCELLANEOUS

Dry Eye Disease in Older Adults

1. Prokopich CL, Bitton E, Caffery B, et al. *Screening, Diagnosis and Management of Dry Eye Disease: Practical Guidelines for Canadian Optometrists*. Canadian Journal of Optometry 2014;76:Suppl 1.
2. American Academy of Ophthalmology Corena/External Disease Panel. Preferred Practice Pattern Guidelines. *Dry Eye Syndrome*. San Francisco, CA: American Academy of Ophthalmology;2013. Available at: www.aao.org/ppp
3. Ilyas H, Slonim CB, Braswell GR, et al. *Long-term Safety of Loteprednol Etabonate 0.2% in the Treatment of Seasonal and Perennial Allergic Conjuntivitis*. Eye & Contact Lens 2004;30(1):10-13.
4. *2007 Report of the International Dry Eye Workshop (DEWS)*. The Ocular Surface 2007;5(2).
5. UpToDate – *Dry Eyes*. Available through the University of Toronto Pharmacy LibGuide. Accessed 2017 Jan 3.
6. RxTx – *Dry Eye*, available through the University of Saskatchewan Pharmacy LibGuide. Accessed 2018 Aug 1.
7. Askeroglu U, Alleyne B, Guyuron B. *Pharmaceutical and herbal products that may contribute to dry eyes*. Plast Reconstr Surg. 2013 Jan;131(1):159-67.
8. Clayton JA. *Dry Eye*. N Engl J Med. 2018 Jun 7;378(23):2212-2223.
9. Nakhla N. *The "Nitty Gritty" of Dry Eye Disease*. Pharm Practice + Business. 2018 Jul 6. 5(6); 42-44.
10. Lemp MA. *Advances in understanding and managing dry eye disease*. Am J Ophthalmol. 2008 Sep;146(3):350-356.
11. Pflugfelder SC. *Advances in the diagnosis and management of keratoconjunctivitis sicca*. Curr Opin Ophthalmol. 1998 Aug;9(4):50-3. Review.
12. Utine CA, Stern M, Akpek E. *Clinical Review: Topical Ophthalmic Use of Cyclosporin A*. Ocular Immunology and Inflammation 2010;18(5):352-61.
13. van Rensburg EJ, Meyer D. *Astute and safe use of topical ocular corticosteroids in general practice: Practical guidelines*. AJOL 2013;31(4):127-9.
14. *Lacrisert– Product Monograph*. Available through Health Canada Drug Product Database. Accessed 2017 Jan 17.
15. *HYLO, HYLO DUAL, HYLO GEL, OCUNOX & CALMO Spray*. Available at: http://candorvision.com/ . Accessed 2017 Jan 17.
16. Partially Covered Services – Government of Saskatchewan. Available at: https://www.saskatchewan.ca/residents/health/prescription-drug-plans-and-health-coverage/health-benefits-coverage/partially-covered-services. Accessed 2017 Jan 17.
17. visualDx. *Keratoconjunctivitis sicca syndrome*. Available through University of Saskatchewan Pharmacy LibGuide. Accessed 2018 Aug 1.
18. Stapleton F, Alves M, Bunya VY, et al. *TFOS DEWS II Epidemiology Report*. Ocul Surf. 2017;15(3): 334-365.
19. Nassiri N, Rodriguez Torres Y, Meyer Z, et al. *Current and emerging therapy of dry eye disease. Part A: pharmacological modalities*. Expert Review of Ophthalmology. 2017;12(4): 269-297.
20. Nassiri N, Zhou XY, Rodriguez Torres Y, et al. *Current and emerging therapy of dry eye disease. Part B: non-pharmacological modalities*. Expert Review of Ophthalmology. 2017;12(4): 299-312.
21. Miljanović B, Trivedi KA, Dana MR, et al. *The relationship between dietary n-3 and n-6 fatty acids and clinically diagnosed dry eye syndrome in women*. Am J Clin Nutr. 2005 October; 82(4): 887–893
22. The dry eye assessment and management study research group. *n–3 Fatty Acid Supplementation for the Treatment of Dry Eye Disease*. N Engl J Med. 2018 April 13;378:1681-90.

MISCELLANEOUS

Electrolyte Imbalances in Older Adults

1. Perazella MA, Mahnensmith RL. *HYPERkalemia in the elderly: drugs exacerbate impaired potassium homeostasis*. J Gen Intern Med. 1997 Oct;12(10):646-56. Review. PubMed PMID: 9346463; PubMed Central PMCID: MC1497179.
2. Kugler JP, Hustead T. *Hyponatremia and HYPERnatremia in the elderly*. Am Fam Physician. 2000 Jun 15;61(12):3623-30. Review. PubMed PMID: 10892634.
3. Mentes J. *Oral hydration in older adults: greater awareness is needed in preventing, recognizing, and treating dehydration*. Am J Nurs. 2006 Jun;106(6):40-9; quiz 50. Review. PubMed PMID: 16728843.
4. Kugler JP, Hustead T. *Hyponatremia and HYPERnatremia in the elderly*. Am Fam Physician. 2000 Jun 15;61(12):3623-30. Review. PubMed PMID: 10892634.
5. Kugler JP, Hustead T. *Hyponatremia and HYPERnatremia in the elderly*. Am Fam Physician. 2000 Jun 15;61(12):3623-30. Review. PubMed PMID: 10892634.
6. Shah MK, Workeneh B, Taffet GE. *HYPERnatremia in the geriatric population*. Clin Interv Aging. 2014 Nov 19;9:1987-92. doi: 10.2147/CIA.S65214. eCollection 2014. PubMed PMID: 25429210; PubMed Central PMCID: PMC4242070.
7. Huang CL, Kuo E. *Mechanism of hypokalemia in magnesium deficiency*. J Am Soc Nephrol. 2007 Oct;18(10):2649-52.
8. Braun MM, Barstow CH, Pyzocha NJ. *Diagnosis and management of sodium disorders: hyponatremia and HYPERnatremia*. Am Fam Physician. 2015 Mar 1;91(5):299-307. PubMed PMID: 25822386.
9. Braun MM, Barstow CH, Pyzocha NJ. *Diagnosis and management of sodium disorders: hyponatremia and HYPERnatremia*. Am Fam Physician. 2015 Mar 1;91(5):299-307. PubMed PMID: 25822386.
10. Cohn JN, Kowey PR, Whelton PK, Prisant LM. *New guidelines for potassium replacement in clinical practice: a contemporary review by the National Council on Potassium in Clinical Practice*. Arch Intern Med. 2000 Sep 11;160(16):2429-36. Review. PubMed PMID: 10979053.
11. Chang WT, Radin B, McCurdy MT. *Calcium, magnesium, and phosphate abnormalities in the emergency department*. Emerg Med Clin North Am. 2014 May;32(2):349-66. doi: 10.1016/j.emc.2013.12.006. Epub 2014 Feb 19. Review. PubMed PMID: 24766937.
12. Arinzon Z, Peisakh A, et. al. *Prevalence of hypomagnesemia (HM) in a geriatric long-term care (LTC) setting*. Arch Gerontol Geriatr. 2010 Jul-Aug;51(1):36-40. doi: 10.1016/j.archger.2009.07.002. Epub 2009 Aug 7. PubMed PMID: 19665241.
13. *Saskatoon Health Region Reference Ranges*
14. Alfonzo A, Soar J, MacTier R, Fox J, Shillday I, Nolan J et al. *Clinical Practice Guidelines – Treatment of acute hyperkalemia in adults*. UK Renal Association. 2014. https://renal.org/wp-content/uploads/2017/06/hyperkalaemia-guideline-1.pdf , accessed September 9, 2018.
15. Viera AJ, Wouk N. *Potassium Disorders: Hypokalemia and Hyperkalemia*. Am Fam Physician. 2015 Sep 15;92(6):487-95. PubMed PMID: 26371733.
16. McDonald TJ, Oram RA, Vaidya B. *Investigating hyperkalaemia in adults*. BMJ. 2015 Oct 20;351:h4762. doi: 10.1136/bmj.h4762. PubMed PMID: 26487322.
17. Ethier J. *Potassium Disturbances*. RxTx. 2018, May. Accessed September 8, 2018.
18. *Hypokalemia*. Chemocare. Accessed April 2015 at http://www.chemocare.com/chemotherapy/side-effects/hypokalemia-low-potassium.aspx#.VTVCBCG6eUl
19. Huang CL, Kuo E. *Mechanism of hypokalemia in magnesium deficiency*. J Am Soc Nephrol. 2007 Oct;18(10):2649-52. Epub 2007 Sep 5. Review. PubMed PMID: 17804670.
20. *Potassium and Your CKD Diet*. National Kidney Foundation. Accessed April 2015 at https://www.kidney.org/atoz/content/potassium
21. Pharmacists Letter #240904 – *Potassium Content of Foods and Salt Substitutes*. September 2008

22. Ingelfinger JR. *A new era for the treatment of HYPERkalemia?* N Engl J Med. 2015 Jan 15;372(3):275-7. doi: 10.1056/NEJMe1414112. Epub 2014 Nov 21. PubMedPMID: 25415806
23. Palmer BF. *Managing HYPERkalemia caused by inhibitors of the renin-angiotensin-aldosterone system*. N Engl J Med. 2004 Aug 5;351(6):585-92. Review. PubMed PMID: 15295051.
24. Zografos GN, Georgiadou D, Thomas D, Kaltsas G, Digalakis M. *Drug-induced esophagitis*. Dis Esophagus. 2009;22(8):633-7. doi: 10.1111/j.1442-2050.2009.00972.x. Epub 2009 Apr 15. Review. PubMed PMID: 19392845.
25. *Potassium replacement*. CJHP vol. 52, no. 6, December 1999
26. E-CPS Product Monographs 2015
27. Dynamed 2015
28. Pharmacists Letter #240904 – *Potassium Content of Foods and Salt Substitutes*. September 2008
29. Saskatoon Health Region IV Medication Reference Manual 2015
30. Saskatoon Health Region IV Medication Reference Manual 2015
31. MedSask. Accessed April 2015 at http://medsask.usask.ca/
32. Dynamed 2015
33. Liamis G, Milionis H, Elisaf M. *A review of drug-induced HYPERnatraemia*. Nephrology Dialysis Transplantation. 2009 July 16;2:336-346.
34. Dynamed 2015
35. Dietitians of Canada – *Food Sources of Sodium*. Accessed April 2015 at http://www.dietitians.ca/Your-Health/Nutrition-A-Z/Minerals/Food-Sources-of-Sodium.aspx
36. MedSask. Accessed April 2015 at http://medsask.usask.ca/
37. MacLeod SM, Cairns JA. *Controversial sodium guidelines: Scientific solution or perpetual debate?* CMAJ. 2015 Feb 3;187(2):95-6.
38. MacLeod SM, Cairns JA. *Controversial sodium guidelines: Scientific solution or perpetual debate?* CMAJ. 2015 Feb 3;187(2):95-6.
39. MacLeod SM, Cairns JA. *Controversial sodium guidelines: Scientific solution or perpetual debate?* CMAJ. 2015 Feb 3;187(2):95-6.
40. Graudal N, Jürgens G, Baslund B, Alderman MH. *Compared with usual sodium intake, low- and excessive-sodium diets are associated with increased mortality: a meta-analysis.* Am J HYPERtens. 2014 Sep;27(9):1129-37.
41. Graudal N, Jürgens G, Baslund B, Alderman MH. *Compared with usual sodium intake, low- and excessive-sodium diets are associated with increased mortality: a meta-analysis*. Am J HYPERtens. 2014 Sep;27(9):1129-37.
42. He F, Li J, Macgregor G. *Effect of longer term modest salt reduction on blood pressure: Cochrane systematic review and meta-analysis of randomised trials.* BMJ 2013;346:f1325.
43. Aburto N, Ziokovska A, Hooper L, et al. *Effect of lower sodium intake on health: systematic review and meta-analyses*. BMJ 2013;346:f1326.
44. Dietitians of Canada – *Food Sources of Magnesium*. Accessed April 2015 at http://www.dietitians.ca/Your-Health/Nutrition-A-Z/Minerals/Food-Sources-of-Magnesium.aspx
45. Chang WT, Radin B, McCurdy MT. *Calcium, magnesium, and phosphate abnormalities in the emergency department*. Emerg Med Clin North Am. 2014 May;32(2):349-66. doi: 10.1016/j.emc.2013.12.006. Epub 2014 Feb 19. Review. PubMed PMID: 24766937.
46. Dynamed 2015
47. Chang WT, Radin B, McCurdy MT. *Calcium, magnesium, and phosphate abnormalities in the emergency department*. Emerg Med Clin North Am. 2014 May;32(2):349-66. doi: 10.1016/j.emc.2013.12.006. Epub 2014 Feb 19. Review. PubMed PMID: 24766937.
48. Pharmacists Letter # 271111 – *Treating Magnesium Deficiency*. November 2011
49. Chang WT, Radin B, McCurdy MT. *Calcium, magnesium, and phosphate abnormalities in the emergency department*. Emerg Med Clin North Am. 2014 May;32(2):349-66. doi:10.1016/j.emc.2013.12.006. Epub 2014 Feb 19. Review. PubMed PMID: 24766937.

50. *Guideline for replacement of magnesium*. CJHP vol 52 no 6 December 1999
51. Dynamed 2015
52. Pharmacists Letter # 271111 – *Treating Magnesium Deficiency*. November 2011
53. Chang WT, Radin B, McCurdy MT. *Calcium, magnesium, and phosphate abnormalities in the emergency department*. Emerg Med Clin North Am. 2014 May;32(2):349-66. doi: 10.1016/j.emc.2013.12.006. Epub 2014 Feb 19. Review. PubMed PMID: 24766937.
54. Garrison S, Allan G, Sekhon R, Musini V, Khan K. *Magnesium for skeletal muscle cramps.* Cochrane Database Syst Rev 2012;Sep 12;(9):CD009402
55. Maor N, Alperin M, Shturman E, et al. *Effect of magnesium oxide supplementation on nocturnal leg cramps. A Randomized Clinical Trial*. JAMA Intern Med 2017;177(5):617-623.
56. Mentes J. *Oral hydration in older adults: greater awareness is needed in preventing, recognizing, and treating dehydration*. Am J Nurs. 2006 Jun;106(6):40-9; quiz 50. Review. PubMed PMID: 16728843.
57. Shah MK, Workeneh B, Taffet GE. *HYPERnatremia in the geriatric population*. Clin Interv Aging. 2014 Nov 19;9:1987-92. doi: 10.2147/CIA.S65214. eCollection 2014. PubMed PMID: 25429210; PubMed Central PMCID: PMC4242070
58. Braun MM, Barstow CH, Pyzocha NJ. *Diagnosis and management of sodium disorders: hyponatremia and HYPERnatremia*. Am Fam Physician. 2015 Mar 1;91(5):299-307. PubMed PMID: 25822386.
59. Mentes J. *Oral hydration in older adults: greater awareness is needed in preventing, recognizing, and treating dehydration*. Am J Nurs. 2006 Jun;106(6):40-9; quiz 50. Review. PubMed PMID: 16728843
60. Liamis G, Milionis H, Elisaf M. *A review of drug-induced hyponatremia*. Am J Kidney Dis. 2008 Jul;52(1):144-53. doi: 10.1053/j.ajkd.2008.03.004. Epub 2008 May 12. Review. PubMed PMID: 18468754.
61. Mentes J. *Oral hydration in older adults: greater awareness is needed in preventing, recognizing, and treating dehydration*. Am J Nurs. 2006 Jun;106(6):40-9; quiz 50. Review. PubMed PMID: 16728843.
62. Hooton TM, Vecchio M, Iroz A, Tack I, Dornic Q, Seksek I, Lotan Y. *Effect of increased daily water intake in premenopausal women with recurrent urinary tract infections: a randomized clinical trial.* JAMA internal medicine. 2018 Nov 1;178(11):1509-15.
63. Perazella MA, Mahnensmith RL. *HYPERkalemia in the elderly: drugs exacerbate impaired potassium homeostasis.* J Gen Intern Med. 1997 Oct;12(10):646-56. Review. PubMed PMID: 9346463; PubMed Central PMCID: PMC1497179.

MISCELLANEOUS

Medication Administration Challenges

1. The Society of Hospital Pharmacists of Australia. *Australian Don't Rush to Crush Handbook*. *Therapeutic Options for people unable to swallow solid oral medications*. 1st ed. Collingwood, Vic: The Society of Hospital Pharmacists of Australia, 2011. Print.
2. PL Detail-Document, *Meds That Should Not Be Crushed*. Pharmacist's Letter/Prescriber's Letter. August 2014.
3. Keele University. *Implications of altering oral solid-dose formulations*. 2012. Available: http://www.dysphagia-medicine.com/splitting-and-crushing-tablets.html
4. Murhammer J, Ross M, Bebout K. *Medications that Should Not be Crushed*. RxUpdate. 2004 Mar.
5. *Hard to swallow: strategies for improving taste of meds*. Pharmacist's Letter/Pharmacy Technician's Letter 2010;26(9):260913.
6. Haw C, Stubbs J. *Covert administration of medication to older adults: a review of the literature and published studies*. J Psychiatr Ment Health Nurs. 2010 Nov;17(9):761-8.
7. Mitchell J. *Oral Dosage Forms That Should Not Be Crushed*. ISMP. 2014 Jan.
8. The Society of Hospital Pharmacists of Australia. *Australian Don't Rush to Crush Handbook. Therapeutic Options for people unable to swallow solid oral medications*. 2nd ed. Collingwood, Vic: The Society of Hospital Pharmacists of Australia, 2016. Print.

Additional References:

[a] Lasskogen G, Jepsen SK. *Overcoming Patient Difficulty in Swallowing Tablets- Extended Release Characteristics of Pentasa (mesalamine, 5-ASA) are Maintained Following Dispersal in Water*

MISCELLANEOUS

Nutritional Supplements & Dietary Considerations for Disease Management

General References:

- Canadian Pharmacists Association. Therapeutic Choices for Minor Ailments, 1st Edition. Ottawa, Canada. 2013.
- Dynamed. Available at: http://www.dynamed.com/home/
- eCPS. Available at: https://www.e-therapeutics.ca/home.whatsnew.action
- Lexicomp. Available at: http://online.lexi.com/lco/action/home/switch
- Uptodate. Available at: http://online.lexi.com/lco/action/home/switch

Calcium:

- Bolland MJ, Avenell A, Baron JA, et al. *Effect of calcium supplements on risk of myocardial infarction and cardiovascular events: meta-analysis*. *BMJ* 2010;341:c3691.
- *Health Canada Vitamin D and Calcium: Updated Dietary Reference Intakes*. Available at: http://www.hc-sc.gc.ca/fn-an/nutrition/vitamin/vita-d-eng.php. Accessed July 2015.
- Jackson RD, LaCroix AZ, Gass M, et al. *Women's Health Initiative Investigators. Calcium plus vitamin D supplementation and the risk of fractures*. N Engl J Med. 2006 Feb 16;354(7):669-83.
- Manns BJ, Hodsman A, Zimmerman DL et al. *Canadian Society of Nephrology commentary on the 2009 KDIGO Clinical Practice Guideline for the Diagnosis, Evaluation, and Treatment of CKD-Mineral and Bone Disorder (CKD-MBD)*. Am J Kidney Dis. 2010 May;55(5):800-12.
- National Kidney Foundation. *K/DOQI clinical practice guidelines for bone metabolism and disease in chronic kidney disease*. Am J Kidney Dis. 2003 Oct;42(4 Suppl 3):S1-201.
- Papaioannou A, Morin S, Cheung AM, et al; Scientific Advisory Council of Osteoporosis Canada. *2010 clinical practice guidelines for the diagnosis and management of osteoporosis in Canada: summary*. CMAJ. 2010 Nov 23; 182(17):1864-73.
- Pharmacist Letter Detail-Document, *Calcium and Cardiovascular Risk*. Pharmacist's Letter/Prescriber's Letter. April 2013.

Co-enzyme Q10:

- Banach M, Serban C, Sahebkar A, Ursoniu S, et al; Lipid and Blood Pressure Meta-analysis Collaboration Group. *Effects of coenzyme Q10 on statin-induced myopathy: a meta-analysis of randomized controlled trials*. Mayo Clin Proc. 2015 Jan;90(1):24-34.
- Madmani ME, Yusuf Solaiman A, Tamr Agha K, et al. *Coenzyme Q10 for heart failure*. Cochrane Database Syst Rev. 2014 Jun 2;6:CD008684.
- Parkinson Study Group QE3 Investigators, Beal MF, Oakes D, Shoulson I, et al. *A randomized clinical trial of high-dosage coenzyme Q10 in early Parkinson disease: no evidence of benefit*. JAMA Neurol. 2014 May;71(5):543-52.
- Pharmacist Letter Detail-Document, *Statin-Associated Muscle Symptoms*. Pharmacist's Letter/Prescriber's Letter. June 2012.

Iron:

- Anemia Review Panel. *Anemia Guidelines for Family Medicine*. 3rd ed. Toronto: MUMS Guideline Clearinghouse; 2014.
- *KDIGO Clinical Practice Guideline for Anemia in Chronic Kidney Disease*. August 2012; 2(4). Available at: http://www.kdigo.org/clinical_practice_guidelines/pdf/KDIGO-Anemia%20GL.pdf. Accessed August 2015.

Magnesium:

- Garrison SR, Allan GM, Sekhon RK, et al. *Magnesium for skeletal muscle cramps*. Cochrane Database Syst Rev. 2012 Sep 12;9:CD009402.
- *Magnesium: CPhA Monograph: Magnesium Salts: Oral* eCPS
- Pringsheim T, Davenport W, Mackie G, et al; Canadian Headache Society Prophylactic Guidelines Development Group. *Canadian Headache Society guideline for migraine prophylaxis*. Can J Neurol Sci. 2012 Mar;39(2 Suppl 2):S1-59.
- Pharmacist Letter Detail-Document, *Comparison of Oral Magnesium Salts*. Pharmacist's Letter/Prescriber's Letter. November 2011

Multivitamins-Minerals:

- National Institutes of Health. National Cancer Institute. Fact sheet. *Antioxidants and cancer prevention*. Reviewed January 16, 2014. https://www.cancer.gov/about-cancer/causes-prevention/risk/diet/antioxidants-fact-sheet. (Accessed August 7th, 2015).
- Pharmacist Letter *Detail-Document, Eye Vitamins for Age-Related Macular Degeneration. Pharmacist's Letter/Prescriber's Letter. August 2013.*
- Pharmacist Letter *Detail-Document, Multivitamins: Who Needs Them? Pharmacist's Letter/Prescriber's Letter. May 2014.*
- Zhao LQ, Li LM, Zhu H. The Epidemiological Evidence-Based Eye Disease Study Research Group EY. *The effect of multivitamin/mineral supplements on age-related cataracts: a systematic review and meta-analysis*. Nutrients. 2014 Feb 28;6(3):931-49.

Potassium:

- Pharmacist Letter Detail-Document, *Comparison of Potassium Salts*. Pharmacist's Letter/Prescriber's Letter. September 2014.

Vitamin B1 (Thiamine):

- Day E, Bentham PW, Callaghan R, Kuruvilla T, George S. *Thiamine for prevention and treatment of Wernicke-Korsakoff Syndrome in people who abuse alcohol*. Cochrane Database of Systematic Reviews 2013, Issue 7. Art. No.: CD004033.
- Latt N, Dore G. *Thiamine in the treatment of Wernicke encephalopathy in patients with alcohol use disorders*. Intern Med J. 2014 Sep;44(9):911-5.
- Pharmacist Letter Detail-Document, *Outpatient Alcohol Detox and Relapse Prevention*. Pharmacist's Letter/Prescriber's Letter. November 2013.

Vitamin B9 (Folic acid):

- Martí-Carvajal AJ, Solà I, Lathyris D. *Homocysteine-lowering interventions for preventing cardiovascular events*. Cochrane Database of Systematic Reviews 2015, Issue 1. Art. No.: CD006612.

Vitamin B12 (Cobalamin):

- Anemia Review Panel. *Anemia Guidelines for Family Medicine*. 3rd ed. Toronto: MUMS Guideline Clearinghouse; 2014.

Vitamin C:

- 2012 American College of Rheumatology Guidelines for Management of Gout. *Part 1: Systematic Nonpharmacologic and Pharmacologic Therapeutic Approaches to Hyperuricemia*
- Andrés M, Sivera F, Falzon L, et al. *Dietary supplements for chronic gout*. Cochrane Database Syst Rev. 2014 Oct 7;10:CD010156.
- Anemia Review Panel. *Anemia Guidelines for Family Medicine*. 3rd ed. Toronto: MUMS Guideline Clearinghouse; 2014.
- Choi HK, Gao X, Curhan G. *Vitamin C intake and the risk of gout in men: a prospective study*. Arch Intern Med. 2009 Mar 9;169(5):502-7.
- Hemilä H, Chalker E. *Vitamin C for preventing and treating the common cold*. Cochrane Database Syst Rev. 2013 Jan 31;1:CD000980.

- Huang HY, Appel LJ, Choi MJ, et al ER 3rd. *The effects of vitamin C supplementation on serum concentrations of uric acid: results of a randomized controlled trial*. Arthritis Rheum. 2005 Jun;52(6):1843-7.
- Juraschek SP, Miller ER 3rd, Gelber AC. *Effect of oral vitamin C supplementation on serum uric acid: a meta-analysis of randomized controlled trials*. Arthritis Care Res (Hoboken). 2011 Sep;63(9):1295-306.
- Ryu KA, Kang HH, Kim SY, et al. *Comparison of nutrient intake and diet quality between hyperuricemia subjects and controls in Korea*. Clin Nutr Res. 2014 Jan;3(1):56-63.
- Stamp LK, O'Donnell JL, Frampton C, et al. *Clinically insignificant effect of supplemental vitamin C on serum urate in patients with gout: a pilot randomized controlled trial*. Arthritis Rheum. 2013 Jun;65(6):1636-42.
- Towiwat P, Li ZG. *The association of vitamin C, alcohol, coffee, tea, milk and yogurt with uric acid and gout*. Int J Rheum Dis. 2015 Jun;18(5):495-501.

Vitamin D:

- Cameron ID, Gillespie LD, Robertson MC, Murray GR, Hill KD, Cumming RG, Kerse N. *Interventions for preventing falls in older people in care facilities and hospitals*. Cochrane Database of Systematic Reviews 2012, Issue 12. Art. No.: CD005465. DOI: 10.1002/14651858.CD005465.pub3.
- Gillespie LD, Robertson MC, Gillespie WJ, Sherrington C, Gates S, Clemson LM, Lamb SE. *Interventions for preventing falls in older people living in the community.* Cochrane Database of Systematic Reviews 2012, Issue 9. Art. No.: CD007146. DOI: 10.1002/14651858.CD007146.pub3.
- *Health Canada Vitamin D and Calcium: Updated Dietary Reference Intakes*. Available at: http://www.hc-sc.gc.ca/fn-an/nutrition/vitamin/vita-d-eng.php. Accessed July 2015.

Vitamin E:

- Miller ER 3rd, Pastor-Barriuso R, Dalal D, et al. *Meta-analysis: high-dosage vitamin E supplementation may increase all-cause mortality*. Ann Intern Med. 2005 Jan 4;142(1):37-46.
- Klein EA, Thompson IM Jr, Tangen CM, et al. *Vitamin E and the risk of prostate cancer: the Selenium and Vitamin E Cancer Prevention Trial (SELECT)*. JAMA. 2011 Oct 12;306(14):1549-56.
- Schürks M, Glynn RJ, Rist PM, et al. *Effects of vitamin E on stroke subtypes: meta-analysis of randomised controlled trials*. BMJ. 2010 Nov 4;341:c5702.

Vitamin K:

- Ageno W, Gallus AS, Wittkowsky A, et al; American College of Chest Physicians. *Oral anticoagulant therapy: Antithrombotic Therapy and Prevention of Thrombosis*, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines. Chest. 2012 Feb;141(2 Suppl):e44S-88S.

Constipation: see Constipation in Older Adults section for references

GERD: see GERD in Older Adults section for references

Heart Failure: see Heart Failure in Older Adults for references

Gout:

- Andrés M, Sivera F, Falzon L, et al. *Dietary supplements for chronic gout*. Cochrane Database Syst Rev. 2014 Oct 7;10:CD010156.
- Choi HK, Gao X, Curhan G. *Vitamin C intake and the risk of gout in men: a prospective study*. Arch Intern Med. 2009 Mar 9;169(5):502-7.
- Huang HY, Appel LJ, Choi MJ, et al ER 3rd. *The effects of vitamin C supplementation on serum concentrations of uric acid: results of a randomized controlled trial.* Arthritis Rheum. 2005 Jun;52(6):1843-7.
- Juraschek SP, Miller ER 3rd, Gelber AC. *Effect of oral vitamin C supplementation on serum uric acid: a meta-analysis of randomized controlled trials*. Arthritis Care Res (Hoboken). 2011 Sep;63(9):1295-306.
- Ryu KA, Kang HH, Kim SY, et al. *Comparison of nutrient intake and diet quality between hyperuricemia subjects and controls in Korea*. Clin Nutr Res. 2014 Jan;3(1):56-63.
- Stamp LK, O'Donnell JL, Frampton C, et al. *Clinically insignificant effect of supplemental vitamin C on serum urate in patients with gout: a pilot randomized controlled trial*. Arthritis Rheum. 2013 Jun;65(6):1636-42.
- Towiwat P, Li ZG. *The association of vitamin C, alcohol, coffee, tea, milk and yogurt with uric acid and gout*. Int J Rheum Dis. 2015 Jun;18(5):495-501.

Age-Related Macular Degeneration:

- Age-Related Eye Disease Study Research Group. *A randomized, placebo-controlled, clinical trial of high-dose supplementation with vitamins C and E, beta carotene, and zinc for age-related macular degeneration and vision loss: AREDS report no. 8*. Arch Ophthalmol. 2001 Oct;119(10):1417-36.
- Age-Related Eye Disease Study 2 Research Group. *Lutein + zeaxanthin and omega-3 fatty acids for age-related macular degeneration: the Age-Related Eye*
- *Disease Study 2 (AREDS2) randomized clinical trial*. JAMA. 2013 May 15;309(19):2005-15.
- American Academy of Ophthalmology Retina Panel. Preferred Practice Pattern Guidelines. *Age-relatedmacular degeneration*. January 2015.
- Christen WG, Glynn RJ, Chew EY et al. *Folic acid, pyridoxine, and cyanocobalamin combination treatment and age-related macular degeneration in women: the Women's Antioxidant and Folic Acid Cardiovascular Study*. Arch Intern Med. 2009 Feb 23;169(4):335-41.
- Evans JR, Lawrenson JG. *Antioxidant vitamin and mineral supplements for preventing age-related macular degeneration*. Cochrane Database Syst Rev. 2012 Jun 13;6:CD000253.
- Evans JR, Lawrenson JG. *Antioxidant vitamin and mineral supplements for slowing the progression of age-related macular degeneration*. Cochrane Database Syst Rev. 2012 Nov 14;11:CD000254.
- Lawrenson JG, Evans JR. *Omega 3 fatty acids for preventing or slowing the progression of age-related macular degeneration*. Cochrane Database Syst Rev. 2015 Apr 9;4:CD010015.

Urinary Tract Infections:

- Wang CH, Fang CC, Chen NC, Liu SS, Yu PH, Wu TY, Chen WT, Lee CC, Chen SC. *Cranberry-containing products for prevention of urinary tract infections in susceptible populations: a systematic review and meta-analysis of randomized controlled trials*. Arch Intern Med. 2012 Jul 9;172(13):988-96. doi: 10.1001/archinternmed.2012.3004. Review. PubMed PMID: 22777630.
- Allan M, Nicolle L. *Cranberry juice/tablets for the prevention of urinary tract infection: naturally the best?* Tools for Practice, March 4, 2013.

Other References:

1. Kahwati L, Weber R, Pan H, Gourlay M, LeBlanc E, Coker-Schwimmer M, et al. *Vitamin D, calcium, or combined supplementation for the primary prevention of fractures in community-dwelling adults*. Evidence report and systematic review for the US Preventive Services Task Force. JAMA. 2018;319(15):1600-12.
2. Bolland MJ, Avenell A, Baron JA, et al. *Effect of calcium supplements on risk of myocardial infarction and cardiovascular events: meta-analysis*. BMJ 2010;341:c3691.
3. Banach M, Serban C, Sahebkar A, Ursoniu S, et al; Lipid and Blood Pressure Meta-Analysis Collaboration Group. *Effects of coenzyme Q10 on statin-induced myopathy: a meta-analysis of randomized controlled trials*. Mayo Clin Proc. 2015 Jan;90(1):24-34.
4. The Alpha-Tocopherol, Beta Carotene Cancer Prevention Study Group. *The effect of vitamin E and beta carotene on the incidence of lung cancer and other cancers in male smokers*. N Engl J Med 1994;330:1029-35.
5. Middha P, Weinstein S, Mannisto S, Albanes D, Mondul A. *β-Carotene supplementation and lung cancer incidence in the alpha-tocopherol, beta-carotene cancer prevention study: the role of tar and nicotine*. Nicotine & Tobacco Research, 2019,1-6.
6. Zhao L, Li L, Zhu H, and The Epidemiological Evidence-Based Eye Disease Study Research Group. *The effect of multivitamin/mineral supplements on age-related cataracts: a systematic review and meta-analysis*. Nutrients. 2014;6:931-49.
7. Sperduto R, Hu T, Milton R, Zhao J, Everett D, Cheng Q, et al. *The Linxian cataract studies. Two nutrition intervention trials*. Arch Ophthalmol. 1993;111:1246-53.
8. Clinical Trial of Nutritional Supplements and Age-Related Cataract Study Group; Maraini G, Williams S, Sperduto R, Ferris F, Milton R et al. *A randomized, double-masked, placebo-controlled clinical trial of multivitamin supplementation for age-related lens opacities*. Clinical trial of nutritional supplements and age-related cataract report no. 3. Ophthalmology. 2009;115:599-607.
9. Mathew M, Ervin A, Tao J, Davis R. *Antioxidant vitamin supplementation for preventing and slowing the progression of age-related cataract*. Cochrane Database Syst Rev. 2012; 13(6): CD004567.
10. Wang A, Han J, Jiang Y, Zhang D. *Association of vitamin A and β-carotene with risk for age-related cataract: A meta-analysis*. Nutrition. 2014;30:1113-1121.
11. Schwinglashackl L, Boeing H, Stelmach-Mardas M, Gottschald M, Dietrich S, Hoffman G, et al. *Dietary supplements and risk of cause-specific death, cardiovascular disease, and cancer: a systematic review and meta-analysis of primary prevention trials*. Adv Nutr 2017;8:27-39.
12. Andres M, Sivera F, Falzon L, Buchbinder R, Carmona L. *Dietary supplements for chronic gout*. Cochrane Database Syst Rev. 2014;10:CD010156
13. Hemilä H, Chalker E. *Vitamin C for preventing and treating the common cold*. Cochrane Database Syst Rev. 2013 Jan 31;1:CD000980.
14. Ran L, Zhao W, Wang J, Wang H, Zhao Y, Tseng Y et al. *Extra dose of vitamin C based on a daily supplementation shortens the common cold: A meta-analysis of 9 randomized controlled trials*. BioMed Research International. 2018; Article ID 1837634, 12 pages.
15. Bischoff-Ferrari HA, Willett WC, Wong JB, et al. *Prevention of nonvertebral fractures with oral vitamin D and dose dependency: a meta-analysis of randomized controlled trials*. Arch Intern Med. 2009 Mar 23;169(6):551-61.
16. Grant AM, Avenell A, Campbell MK, et al. *Oral vitamin D3 and calcium for secondary prevention of low-trauma fractures in elderly people (Randomised Evaluation of Calcium Or vitamin D, RECORD): a randomised placebo-controlled trial* [comment in: Lancet 2005;366(9485):543]. Lancet 2005;365(9471):1621–8
17. Miller ER 3rd, Pastor-Barriuso R, Dalal D, et al. *Meta-analysis: high-dosage vitamin E supplementation may increase all-cause mortality*. Ann Intern Med. 2005 Jan 4;142(1):37-46.
18. Klein EA, Thompson IM Jr, Tangen CM, et al. V*itamin E and the risk of prostate cancer: the Selenium and Vitamin E Cancer Prevention Trial (SELECT)*. JAMA. 2011 Oct 12;306(14):1549-56.

19. Schürks M, Glynn RJ, Rist PM, et al. *Effects of vitamin E on stroke subtypes: meta-analysis of randomised controlled trials*. BMJ. 2010 Nov 4;341:c5702.
20. Rombouts E, Rosendaal F, Van Der Meer F. *Daily vitamin K supplementation improves anticoagulant stability*. J Thromb Haemost. 2007;5(10):2043-8.
21. Choi HK, Gao X, Curhan G. *Vitamin C intake and the risk of gout in men: a prospective study*. Arch Intern Med. 2009 Mar 9;169(5):502-7.
22. Stamp L, O'Donnell J, Frampton C, Drake J, Zhang M, Chapman P. *Clinically insignificant effect of supplemental vitamin C on serum urate in patients with gout: a pilot randomized controlled trial*. Arthritis Rheum 2013;65(6):1636-42.
23. Tavazzi L, Maggioni A, Marchioli R, Barlera S, Franzosi M, Latini R, et al. *Effect of n-3 polyunsatruated fatty acids in patients with chronic heart failure (the GISSI-HF trial): a randomized, double-blind, placebo-controlled trial*. Lancet. 2008;372(9645):1223-30.
24. Wang CH, Fang CC, Chen NC, et al. Arch Intern Med. 2012 Jul 9; 172(13):988-96.

MISCELLANEOUS

Vaccines for Older Adults

GERI-RXFILES VACCINES FOR OLDER ADULTS REFERENCES:

1. The Public Health Agency of Canada. *Canadian Immunization Guide*. https://www.canada.ca/en/public-health/services/canadian-immunization-guide.html, accessed July 30, 2019.
2. Kim DK, Riley LE, Hunter P; Advisory Committee on Immunization Practices. *Recommended Immunization Schedule for Adults Aged 19 Years or Older, United States, 2018*. Ann Intern Med. 2018 Feb 6;168(3):210-220.
3. The Public Health Agency of Canada. *Pneumococcal Vaccine*. Canadian Immunization Guide. https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-16-pneumococcal-vaccine.html, accessed July 30, 2019.
4. The Public Health Agency of Canada. *Tetanus Toxoid*. Canadian Immunization Guide. https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-22-tetanus-toxoid.html, accessed July 30, 2019.
5. Liang JL, Tiwari T, Moro P, et al. *Prevention of Pertussis, Tetanus, and Diphtheria with Vaccines in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP)*. MMWR Recomm Rep 2018;67(No. RR-2):1–44. DOI: https://www.cdc.gov/mmwr/volumes/67/rr/rr6702a1.htm#, accessed July 30, 2019.
6. Hammarlund E, Thomas A, Poore EA, et al. *Durability of Vaccine-Induced Immunity Against Tetanus and Diphtheria Toxins: A Cross-sectional Analysis*. Clin Infect Dis. 2016 May 1;62(9):1111-1118.
7. World Health Organization. Internation travel and health. *Tetanus*. http://www.who.int/ith/vaccines/tetanus/en/, accessed July 30, 2019
8. The Public Health Agency of Canada. *Cholera and Entertoxigenic Escherichia Coli Travellers' Diarrhea Vaccine. Canadian Immunization Guide*. https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-3-cholera-enterotoxigenic-escherichia-coli-travellers-diarrhea-vaccine.html, accessed July 30, 2019.
9. The Public Health Agency of Canada. *Statement on Older Travellers*. 2011. 37(ACS-2):1-24. https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2011-37/statement-on-older-travellers.html, accessed July 30, 2019. doi: https://doi.org/10.14745/ccdr.v37i00a02

GERI-RXFILES HERPES ZOSTER REFERENCES:

1. The Public Health Agency of Canada. *An Advisory Committee Statement (ACS) National Advisory Committee on Immunization (NACI) – Updated Recommendations on the Use of Herpes Zoster Vaccines*. June 2018
2. *Shingrix®, Zostavax II® - Monographs*, RxTx, accessed December 28, 2017
3. Boivin G, Jovey R, Elliott CT, Patrick DM. *Management and prevention of herpes zoster: A Canadian perspective*. Can J Infect Dis Med Microbiol 2010;21(1):45-52.
4. Clinical Resource, *Shingles Vaccine: FAQs*. Pharmacist's Letter/Prescriber's Letter. December 2017
5. Chen N, Li Q, Yang J et al. *Antiviral treatment for preventing postherpetic neuralgia*. Cochrane Database Syst Rev. 2014;(2):CD006866. doi: 10.1002/14651858.CD006866.pub3

6. Tyring S, Barbarash RA, Nahlik JE, Cunningham A, Marley J, Heng M, Jones T, Rea T, Boon R, Saltzman R. *Famciclovir for the treatment of acute herpes zoster: effects on acute disease and postherpetic neuralgia. A randomized, double-blind, placebo-controlled trial*. Collaborative Famciclovir Herpes Zoster Study Group. Ann Intern Med. 1995 Jul 15;123(2):89-96.

GERI-RXFILES PNEUMOCOCCAL DISEASES REFERENCES:

1. The Public Health Agency of Canada. *Pneumococcal Vaccine*. Canadian Immunization Guide.https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-16-pneumococcal-vaccine.html, accessed July 30, 2019
2. The Public Health Agency of Canada. *Invasive Pneumococcal Disease*. Canadian Immunization Guide.https://www.canada.ca/en/public-health/services/immunization/vaccine-preventable-diseases/invasive-pneumococcal-disease.html, accessed July 30, 2019.
3. *Prevnar 13 Product Monograph*. https://pdf.hres.ca/dpd_pm/00033084.PDF, accessed July 30, 2019
4. *Pneumovax 23 Product Monograph*. https://pdf.hres.ca/dpd_pm/00035855.PDF, accessed July 30, 2019.
5. The Public Health Agency of Canada. *Herpes Zoster (Shingles) Vaccine: Canadian Immunization Guide*. https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-8-herpes-zoster-(shingles)-vaccine.html, accessed July 30, 2019.
6. Falkenhorst G, Remschmidt C, Harder T, et al. *Effectiveness of the 23-Valent Pneumococcal Polysaccharide Vaccine (PPV23) against Pneumococcal Disease in the Elderly: Systematic Review and Meta-Analysis*. PLoS One. 2017 Jan 6;12(1):e0169368.
7. Bonten MJ, Huijts SM, Bolkenbaas M, et al. *Polysaccharide conjugate vaccine against pneumococcal pneumonia in adults*. N Engl J Med. 2015 Mar 19;372(12):1114-25.
8. The Public Health Agency of Canada. *An Advisory Committee Statement (ACS) National Advisory Committee on Immunization (NACI). Update on the use of 13-valent pneumococcal conjugate vaccine (PNEU-C-13) in addition to 23-valent pneumococcal polysaccharide vaccine (PNEU-P-23) in immunocompetent adults 65 years of age and older – Interim Recommendation*. Canadian Immunization Guide. https://www.canada.ca/en/public-health/services/publications/healthy-living/update-use-of-13-valent-pneumococcal-conjugate-vaccine-pneu-c-13-in-addition-to-23-valent-pneumococcal-polysaccharide-vaccine-pneu-p-23-immunocompetent-adults-65-years-and-older-interim-recommendation.html, accessed July 30, 2019.
9. Vila-Corcoles A, Ochoa-Gondar O, de Diego C, et al. *Evaluating clinical effectiveness of 13-valent pneumococcal conjugate vaccination against pneumonia among middle-aged and older adults in Catalonia: results from the EPIVAC cohort study*. BMC Infect Dis. 2018 Apr 27;18(1):196.
10. Jackson LA, Gurtman A, van Cleeff M, Jansen KU, Jayawardene D, Devlin C, Scott DA, Emini EA, Gruber WC, Schmoele-Thoma B. *Immunogenicity and safety of a 13-valent pneumococcal conjugate vaccine compared to a 23-valent pneumococcal polysaccharide vaccine in pneumococcal vaccine-naive adults*. Vaccine. 2013 Aug 2;31(35):3577-84.
11. Van Buynder P, Booy R. *Pneumococcal vaccination in older persons: where are we today?* Pneumonia (Nathan). 2018 Jan 5;10:1.
12. Ramji J, Kolber M. Pneumonia vaccine for adults: is the efficacy as effective as the effort. Tools for Practice. Alberta College of Family Physicians. 2018;July 30. http://campaign.r20.constantcontact.com/render?m=1126690796893&ca=536b4b19-2b29-42fd-99d2-cefc7082b48d , accessed July 30, 2019.
13. Weinberger DM, Bruhn CA, Shapiro ED. *Vaccine against Pneumococcal Pneumonia in Adults*. N Engl J Med. 2015 Jul 2;373(1):92.
14. Black S. *Decline in invasive pneumococcal disease after the introduction of protein-polysaccharide conjugate vaccine*. J Pediatr. 2003 Nov;143(5):688-9.

15. Ladhani SN, Collins S, Djennad A, Sheppard CL, Borrow R, Fry NK, Andrews NJ, Miller E, Ramsay ME. *Rapid increase in non-vaccine serotypes causing invasive pneumococcal disease in England and Wales, 2000-17: a prospective national observational cohort study*. Lancet Infect Dis. 2018 Apr;18(4):441-451.
16. Quach C, Baclic O; National Advisory Committee on Immunization (NACI). *Summary of NACI Statement: Interim Recommendations on the Use of Pneumococcal Vaccines in Immunocompetent Adults 65 Years of Age and Older*. Can Commun Dis Rep. 2016 Dec 1;42(12):260-262. eCollection 2016 Dec 1.
17. Tomczyk S, Bennett NM, Stoecker C, et al; Centers for Disease Control and Prevention (CDC). *Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine among adults aged ≥65 years: recommendations of the Advisory Committee on Immunization Practices (ACIP)*. MMWR Morb Mortal Wkly Rep. 2014 Sep 19;63(37):822-5.
18. Weinberger DM, Harboe ZB, Shapiro ED. *Developing Better Pneumococcal Vaccines for Adults*. JAMA Intern Med. 2017 Mar 1;177(3):303-304.
19. Okasha O, Rinta-Kokko H, Palmu AA, et al. *Population-level impact of infant 10-valent pneumococcal conjugate vaccination on adult pneumonia hospitalisations in Finland.* Thorax. 2018 Mar;73(3):262-269.

GERI-RXFILES INFLUENZA REFERENCES:

1. Vaudry W, Zhao L, Stirling R on behalf of the National Advisory Committee on Immunization (NACI). *Summary of the NACI Seasonal Influenza Vaccine Statement for 2018–2019*. Can Commun Dis Rep 2018;44(6):123-8. https://doi.org/10.14745/ccdr.v44i06a01
2. Centers for Disease Control and Prevention. *Influenza (Flu)*. https://www.cdc.gov/flu/index.htm, accessed July 30, 2019.
3. Centers for Disease Control and Prevention. *Influenza (Flu) – Key facts about flu vaccines*. https://www.cdc.gov/flu/protect/keyfacts.htm, accessed July 30, 2019.
4. Centers for Disease Control and Prevention. *Influenza (Flu) – Vaccine Effectiveness Studies*. https://www.cdc.gov/flu/professionals/vaccination/effectiveness-studies.htm, accessed July 30, 2019.
5. Demicheli V, Jefferson T, Di Pietrantonj C, et al. *Vaccines for preventing influenza in the elderly*. Cochrane Database Syst Rev. 2018 Feb 1;2:CD004876.
6. DiazGranados CA, Dunning AJ, Kimmel M, et al. *Efficacy of high-dose versus standard-dose influenza vaccine in older adults*. N Engl J Med. 2014 Aug 14;371(7):635-45.
7. Gravenstein S, Taljaard M, Gozalo P, et al. *Relative effect of high-dose influenza vaccination on hospitalizations of older adults in United States nursing homes: results from a cluster-randomized controlled trial*. Open Forum Infect Dis. 2015;2(Suppl 1):S67.
8. McNeil SA, Hatchette T, Andrew MK, et al. *Influenza vaccine effectiveness in the prevention of influenza-related hospitalization in Canadian adults over the 2011/12 through 2013/14 season: a pooled analysis from the Serious Outcomes Surveillance (SOS) Network of the Canadian Influenza Research Network (CIRN)*. Open Forum Infect Dis. 2016;3(suppl_1):910.
9. Spadea A, Unim B, Colamesta V, et al. *Is the adjuvanted influenza vaccine more effective than the trivalent inactivated vaccine in the elderly population? Results of a case-control study.* Vaccine. 2014;32(41):5290-4.
10. The Public Health Agency of Canada. Canadian Immunization Guide Chapter on Influenza and Statement on Seasonal Influenza Vaccine for 2019-2019. https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-statement-seasonal-influenza-vaccine-2018-2019.html, accessed July 30, 2019.

11. The Public Health Agency of Canada. An Advisory Committee Review National Advisory Committee on Immunication (NAC). *Literature review update on the efficacy and effectiveness of High-Dose (Fluzone® High Dose) and MF59-Adjuvanted (Fluad®) Trivalent Inactivated Influenza Vaccines in Adults 65 Years of Age and Older*. http://publications.gc.ca/collections/collection_2018/aspc-phac/HP40-210-2018-eng.pdf, accessed July 30, 2019.
12. The Public Health Agency of Canada. Canadian Immunization Guide. *Literature review update on the efficacy and effectiveness of High-Dose (Fluzone® High Dose) and MF59-Adjuvanted (Fluad®) Trivalent Inactivated Influenza Vaccines in Adults 65 Years of Age and Older - Executive Summary*. https://www.canada.ca/en/public-health/services/publications/healthy-living/executive-summary-literature-review-update-efficacy-effectiveness-fluzone-high-dose-fluad-trivalent-inactivated-influenza-vaccines-adults-65-older.html, accessed July 30, 2019.
13. Grohskopf LA, Sokolow LZ, Broder KR, et al. *Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2017–18 Influenza Season*. MMWR Recomm Rep 2017;66(No. RR-2):1–20. DOI: http://dx.doi.org/10.15585/mmwr.rr6602a1, https://www.cdc.gov/mmwr/volumes/66/rr/rr6602a1.htm; https://www.cdc.gov/flu/weekly/, accessed July 30, 2019.
14. *Saskatchewan Influenza Immunization Policy 2018-2019*. 2018; July. http://formulary.drugplan.health.gov.sk.ca/PDFs/Saskatchewan_Publicly_Funded_Influenza_Immunization_Policy_2018-19.pdf, accessed July 30, 2019
15. Gravenstein S, Davidson HE, Taljaard M, et al. *Comparative effectiveness of high-dose versus standard-dose influenza vaccination on numbers of US nursing home residents admitted to hospital: a cluster-randomised trial*. Lancet Respir Med. 2017 Sep;5(9):738-746.
16. Greenhawt M, Turner PJ, Kelso JM. *Administration of influenza vaccines to egg allergic recipients: A practice parameter update 2017*. Ann Allergy Asthma Immunol. 2018 Jan;120(1):49-52.

TAPERING MEDICATIONS IN OLDER ADULTS

1. Beier MT, Martin CM. *Gradual dose reduction and medication tapering: a clinical perspective*. Consult Pharm 2007;22:628-44.
2. *Common oral medications that may need tapering*. Pharmacist's Letter/Prescriber's Letter 2008;24(12):241208.
3. *A practical guide to stopping medications*, BPJ; Issue 27; www.bpac.org.nz
4. *A practical guide to stopping medications*, BPJ; Issue 27; www.bpac.org.nz
5. Care Beyond Cure: Management of Pain and Other Symptoms, 4th Edition (2008). *Chapter 31: Discontinuation of Drugs in Palliative Care*.
6. Gauthier S, Patterson C, Chertkow H, et al. Soucy JP. *Recommendations of the 4th Canadian Consensus Conference on the Diagnosis and Treatment of Dementia (CCCDTD4)*. Can Geriatr J. 2012 Dec;15(4):120-6.
7. Care Beyond Cure: Management of Pain and Other Symptoms, 4th Edition (2008). *Chapter 31: Discontinuation of Drugs in Palliative Care*.
8. *Common oral medications that may need tapering*. Pharmacist's Letter/Prescriber's Letter 2008;24(12):241208.
9. Care Beyond Cure: Management of Pain and Other Symptoms, 4th Edition (2008). *Chapter 31: Discontinuation of Drugs in Palliative Care*.
10. Virani AS, Bezchlibnyk-Butler KZ, Jeffries JJ, Procyshyn RM, *Clinical Handbook of Psychotropic Drugs*,19th Rev.Ed. 2012.
11. *Tegretol Product Monograph*. Prepared by: eCPS. Date of Revision: August 8th, 2013.
12. *Neurontin Product Monograph*. Prepared by: eCPS. Date of Revision: December 30th, 2013.
13. *Gabapentin*; Prepared by Lexicomp: Lexi-Drugs.
14. *Pregabalin*; Prepared by Lexicomp: Lexi-Drugs.
15. *Lyrica Product Monograph*. Prepared by: eCPS. Date of Revision: January 23rd, 2013.
16. *Lamictal Product Monograph*. Prepared by: eCPS. Date of Revision: October 22nd, 2013.
17. *Lamotrigine*; Prepared by Lexicomp: Lexi-Drugs.
18. *Keppra Product Monograph*. Prepared by: eCPS. Date of Revision: March 5th, 2014.
19. *Phenytoin Product Monograph*. Prepared by: eCPS. Date of Revision: November 2011.
20. *Topamax Product Monograph*. Prepared by: eCPS. Date of Revision: August 20th, 2012.
21. *Apo-Valproic Capsules Product Monograph*. Prepared by: eCPS. Date of Revision: May 11, 2012.
22. *Epival Product Monograph*. Prepared by: eCPS. Date of Revision: November 8th, 2013.
23. Virani AS, Bezchlibnyk-Butler KZ, Jeffries JJ, Procyshyn RM, *Clinical Handbook of Psychotropic Drugs*,19th Rev.Ed. 2012.
24. *Wellbutrin XL Product Monograph*. Prepared by: eCPS. Date of Revision: December 12th, 2012.
25. *Bupropion*; Prepared by Lexicomp: Lexi-Drugs.
26. *Zyban Product Monograph*. Prepared by: eCPS. Date of Revision: August 1st, 2013.
27. *Mirtazapine*; Prepared by Lexicomp: Lexi-Drugs.
28. *Remeron Product Monograph*. Prepared by: eCPS. Date of Revision: January 15th, 2014.
29. *Effexor XR Product Monograph*. Prepared by: eCPS. Date of Revision: September 5th, 2012.
30. *Venlafaxine*; Prepared by Lexicomp: Lexi-Drugs.
31. *Pristiq Product Monograph*. Prepared by: eCPS. Date of Revision: March 18th, 2013.
32. *Desvenlafaxine*; Prepared by Lexicomp: Lexi-Drugs.
33. *Cymbalta Product Monograph*. Prepared by: eCPS. Date of Revision: June 13th, 2013.
34. *Duloxetine*; Prepared by Lexicomp: Lexi-Drugs.
35. Virani AS, Bezchlibnyk-Butler KZ, Jeffries JJ, Procyshyn RM, *Clinical Handbook of Psychotropic Drugs*,19th Rev.Ed. 2012.
36. *Selective Serotonin Reuptake Inhibitors Product Monograph*. Prepared by: eCPS. Date of Revision: March 2014.

37. *Paroxetine*; Prepared by Lexicomp: Lexi-Drugs.
38. *Trazodone Product Monograph*. Prepared by: eCPS. Date of Revision: November 2012.
39. *Cyclic Antidepressant Product Monograph*. Prepared by: eCPS. Date of Revision: November 2012.
40. *Common oral medications that may need tapering*. Pharmacist's Letter/Prescriber's Letter 2008;24(12):241208.
41. *Common oral medications that may need tapering*. Pharmacist's Letter/Prescriber's Letter 2008;24(12):241208.
42. *Sinemet Product Monograph*. Prepared by: eCPS. Date of Revision: February 6th, 2014.
43. *Prolopa Product Monograph*. Prepared by: eCPS. Date of Revision: June 12th, 2009.
44. *Amantadine Product Monograph*. Prepared by: eCPS. Date of Revision: October 2009.
45. *Amantadine*; Prepared by Lexicomp: Lexi-Drugs.
46. *Comtan Product Monograph*. Prepared by: eCPS. Date of Revision: May 2nd, 2011.
47. *Mirapex Product Monograph*. Prepared by: eCPS. Date of Revision: November 27, 2012.
48. *Pramipexole*; Prepared by Lexicomp: Lexi-Drugs.
49. *Ropinirole*; Prepared by Lexicomp: Lexi-Drugs.
50. *Requip Product Monograph*. Prepared by: eCPS. Date of Revision: October 11th, 2013.
51. *Ropinirole*; Prepared by Lexicomp: Lexi-Drugs.
52. *Requip Product Monograph*. Prepared by: eCPS. Date of Revision: October 11th, 2013.
53. *Common oral medications that may need tapering*. Pharmacist's Letter/Prescriber's Letter 2008;24(12):241208.
54. Dilsaver SC. *Withdrawal phenomena associated with antidepressant and antipsychotic agents*. Drug Saf. 1994 Feb;10(2):103-14.
55. Mathews M, Gratz S, Adetunji B, George V, Mathews M, Basil B. *Antipsychotic-induced movement disorders: evaluation and treatment*. Psychiatry (Edgmont). 2005 Mar;2(3):36-41.
56. Burns T, Chabannes JP, Demytthenaere K. *Switching antipsychotic medications. General recommendations and switching to amisulpride*. Curr Med Res Opin. 2002;18:201-208. Available at: http://www.medscape.com/viewarticle/439736 Accessed March 31, 2006.
57. *Quetiapine Product Monograph*. Prepared by: eCPS. Date of Revision: December 20th, 2013.
58. *Risperidone*; Prepared by Lexicomp: Lexi-Drugs.
59. *Olanzapine*; Prepared by Lexicomp: Lexi-Drugs.
60. *Clozaril Product Monograph*. Prepared by: eCPS. Date of Revision: May 14th, 2013.
61. *Clozapine*; Prepared by Lexicomp: Lexi-Drugs.
62. *Common oral medications that may need tapering*. Pharmacist's Letter/Prescriber's Letter 2008;24(12):241208.
63. Care Beyond Cure: Management of Pain and Other Symptoms, 4th Edition (2008). *Chapter 31: Discontinuation of Drugs in Palliative Care*.
64. *Beta-adrenergic Blocking Agents Product Monograph*. Prepared by: eCPS. Date of Revision: February, 2014.
65. *Bisprolol, atenolol, metoprolol*; Prepared by Lexicomp: Lexi-Drugs.
66. *Common oral medications that may need tapering*. Pharmacist's Letter/Prescriber's Letter 2008;24(12):241208.
67. Care Beyond Cure: Management of Pain and Other Symptoms, 4th Edition (2008). *Chapter 31: Discontinuation of Drugs in Palliative Care*.
68. *Benzodiazepines Product Monograph*. Prepared by: eCPS. Date of Revision: September, 2012.
69. *Benzodiazepine tookit*. Pharmacist's Letter/Prescriber's Letter 2011;27(4):270406
70. *Common oral medications that may need tapering*. Pharmacist's Letter/Prescriber's Letter 2008;24(12):241208.
71. Care Beyond Cure: Management of Pain and Other Symptoms, 4th Edition (2008). *Chapter 31: Discontinuation of Drugs in Palliative Care*.
72. *Common oral medications that may need tapering*. Pharmacist's Letter/Prescriber's Letter 2008;24(12):241208.
73. *Corticosteroids Product Monograph*. Prepared by: eCPS. Date of Revision: October 2011.

74. Care Beyond Cure: Management of Pain and Other Symptoms, 4th Edition (2008). *Chapter 31: Discontinuation of Drugs in Palliative Care*.
75. *Using oral corticosteroids: a toolbox*. Pharmacist's Letter/Prescriber's Letter 2010;26(5):260507
76. *Nitrates Product Monograph*. Prepared by: eCPS. Date of Revision: February, 2010.
77. *Nitro-Dur Product Monograph*. Prepared by: eCPS. Date of Revision: February 1st, 2011.
78. *Nitroglycerin*; Prepared by Lexicomp: Lexi-Drugs.
79. *Zopiclone Product Monograph*. Prepared by: eCPS. Date of Revision: September, 2013.
80. *Zolpidem Product Monograph*. Prepared by: eCPS. Date of Revision: August 27th, 2013.
81. *Opioids Product Monograph*. Prepared by: eCPS. Date of Revision: July, 2013.
82. RxFiles. *Opioid Tapering Template*. Available: http://www.rxfiles.ca/rxfiles/uploads/documents/Opioid-Taper-Template.pdf
83. *Tramacet Product Monograph*. Prepared by: eCPS. Date of Revision: March 19th, 2014.
84. *Nucynta Product Monograph*. Prepared by: eCPS. Date of Revision: May 3rd, 2014.
85. *Proton pump inhibitors and rebound acid hypersecretion*. Pharmacist's Letter/Prescriber's Letter 2009;25(9):250920.
86. *Lioresal Product Monograph*. Prepared by: eCPS. Date of Revision: September 18th, 2013.
87. *Tizanidine*; Prepared by Lexicomp: Lexi-Drugs.