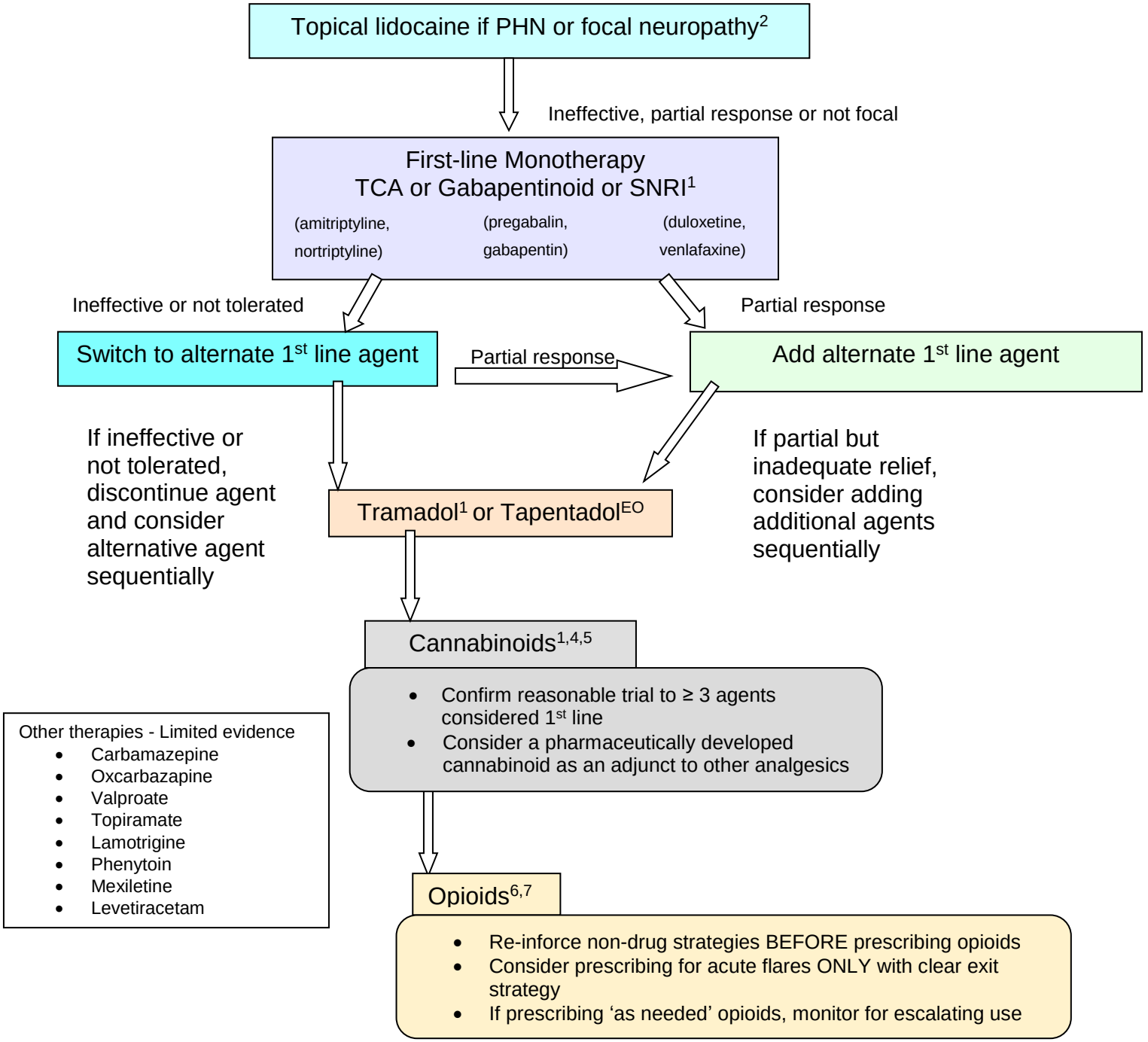
Neuropathic Pain

Pharmacological Evidence-Based Treatment Algorithm for Primary Care



1. Mu A, Weinberg E, Moulin D, Clarke, H. Pharmacological management of chronic neuropathic pain. Review of CPS consensus statement. Can Fam Physician 2017; 63:844-52.
2.Deng Y, Luo L, Hu Y, et al. Clinical practice guidelines for the management of neuropathic pain: a systematic review. BMC Anesthesiology 20016; 16:12
3.Cavalli E, Mammana S, Nicoleeti F, et al. The neuropathic pain: An overview of the current treatment and future therapeutic approaches. International Journal Of Immunopathology and Pharmacology. 2019;33: 1-10.
4. Canadian Agency for Drug and Technologies in Health. Rapid response report: summary with critical appraisal. Medical cannabis for the treatment of chronic pain: a review of clinical effectiveness and guidelines. July 24, 2019.
5. Allan GM, Ramji J, Perry D, Ton J, Beahm NP, Crisp N, Dockrill B, Dubin RE, Findlay T, Kirkwood J, Fleming M, Makus K, Zhu X, Korownyk C, Kolber MR, McCormack J, Nickel S, Noël G, Lindblad AJ. Simplified guideline for prescribing medical cannabinoids in primary care. Can Fam Physician. 2018 Feb;64(2):111-120. PMID: 29449241; PMCID: PMC5964385.
6.Busse JW, Craigie S, David N et al. Guideline for opioid therapy and chronic noncancer pain. CMGAJ 2017 May 8;189:E659-66.doi: 10.1503/cmaj.170363
7. AnGee Baldini, Michael Von Korff, Elizabeth H. B. Lin. A Review of Potential Adverse Effects of Long-Term Opioid Therapy: A Practitioner's Guide. Prim Care Companion CNS Disord. 2012; 14(3): PCC.11m01326.. doi: 10.4088/PCC.11m01326
8.. M LeBras, L Regier, A Crawley, L Kosar, RxFiles Chronic Pain Strategies, Drug Therapy and Tools. 2nd ed.Saskatoon, SK: Saskatoon Health Region; 2020. P 6-17, 22-25.
9. BC. Provincial academic detailing service .PAD: Medications for Neuropathic Pain, Dec 2018
10.Wiffen PJ, Derry S, Bell RF, Rice AS, Tolle TR, Philips T, et al. Gabapentin for chronic neuropathic pain in adults. Cochrane Database Syst Rev. 2017 Jun 9;6: CD007938
11. Derry S, Bell RF, Straube S, Wiffen PJ, Aldington D, Moore RA. Pregabalin for neuropathic pain in adults. Cochrane Database of Systematic Reviews 2019, Issue 1. Art. No.: CD007076. DOI: 10.1002/14651858.CD007076.pub3.
12. Lunn MP, Hughes RA, Wiffen PJ. Duloxetine for treating painful neuropathy, chronic pain or fibromyalgia. Cochrane Database Syst Rev. 2014 Jan 3: 3: CD007115
13. Lexicomp
EO. Expert Opinion

Tricyclic Antidepressants

- ✓ NNT ~4; NNH 4; NNH(drug W/D) 14
- ✓ Initiate nortriptyline or amitriptyline 10§-25mg qHS (~1-3hr before bedtime); titrate by 10mg increments q week; max useful dose: 75§-100mg qHS
- ✓ Trial: ~1 wk to assess tolerability; ~ 2 wks to assess benefit, ~4 wks to assess full effects
- ✓ Contraindications: use of MAOI and cisapride, acute recovery MI, severe hepatic impairment, acute heart failure
- ✓ Common SE; constipation, dizziness, xerostomia, blurred vision, orthostatic hypotension

Gabapentin (Neurontin®)

- ✓ NNT* 6 (PDN 1200mg^{+}/day); NNT* 7 (PHN 1200mg^{+} /day); NNH 8; NNH (drug W/D) 30
- ✓ Initiate100mg po qHS, titrate by 100§-300mg/day q week (slow titration to avoid SE); max useful dose 1800mg/day; divide dose once dose > 300mg/day; typically TID dosing
- ✓ Trial: ~1-2wks to assess tolerability and benefit, ~ 3-4 weeks to assess full effects
- ✓ Max dose due to renal function: CrCl 30-59mL/min 1400mg/day; CrCl 16-29mL/min 700mg/day; CrCl 15mL/min 300mg/day; BID dosing when CrCl < 30mL/min.
- ✓ Common SE: dizziness, drowsiness, gait disturbances, cognitive decline, peripheral edema

Pregabalin (Lyrica®)

- ✓ NNT 22 (PDN 300mg/day); NNT 8 (PDN 600mg/day); NNT 5 (PHN); NNH 8; NNH (drug W/D) 10-16, NNT (CNP 600mg/day) 10
- ✓ Initiate 25§--75mg/day; titrate by 25-50mg q week (slow titration to avoid SE); max useful dose 300mg/day
- ✓ Trial: ~1-2wks to assess tolerability and benefit, ~ 3-4 weeks to assess full effects
- ✓ Max dose due to renal function: CrCl 30-60mL/min 300mg/day; CrCl 15-30mL/min 150mg/day; CrCl <15mL/min 75mg/day; consider once daily dosing when CrCl <30mL/min
- ✓ Common SE: dizziness, somnolence, edema, dry mouth, headache

Duloxetine (Cymbalta®) **Pharmacare Special Authority available**

- ✓ NNT (PDN 60mg/day) 5; NNH (PDN) 12; NNH (drug W/D PDN) 18
- ✓ Initiate 30mg daily for 1-2 weeks; max useful dose 60mg daily
- ✓ Trial: ~1 wk to assess tolerability; ~2 wks to assess benefit, ~4 wks to assess full effects
- ✓ Contraindications: use of MAOI, hepatic and severe renal impairment CrCl< 30mL/min /ESRD, glaucoma, use of potent CYPIA2 inhibitor
- ✓ Common SE: nausea, dry mouth, sweating, constipation, anorexia, dizziness, fatigue, insomnia

Venlafaxine (Effexor®)

- ✓ Initiate 37.5mg/day increase by 37.5mg qweek titrate to 150-225mg/day as needed/required
- ✓ Trial: ~1 wk to assess tolerability; ~2 wks to assess benefit, ~4 wks to assess full effects
- ✓ Do not exceed 50% of maximum recommended dose if CrCl <30mL/min; mild to moderate hepatic dysfunction (Child-Pugh class A and B) reduce total daily dose by 50% or more
- ✓ Contraindications: use of MAOI
- ✓ Common SE: nausea, dizziness, drowsiness, sweating, weight loss, insomnia, weakness

Tramadol (various forms)

- ✓ Consider restricting to 300mg/day (i.e. ~50mg morphine equivalents)
- ✓ Contraindications: use of MAOI, GI obstruction, seizure disorder
- ✓ Common SE: dry mouth, constipation, drowsiness, tremor, headache, dizziness, nausea

Immediate release products: Tramacet® (acetaminophen 325mg + tramadol 37.5mg) and Ultram® (tramadol 50mg)

- ✓ Initiate 25-50mg q6h PRN, increase as needed/tolerate to 50-100mg q4-6h PRN.
- ✓ Adjust CRCL < 30mL/min to q12h interval; max dose 200mg/day; severe hepatic impairment: max dose 50mg q12h.

Extended release products: Zytram XL® , Raliva® , Tridural®, Durela® (do not interchange)

- ✓ Initiate 100mg daily; titrate by 100mg/day q5 days to max 300mg/day-swallow whole
- ✓ Recommended to use IR for at least 1 week, calculate 24hr tramadol IR dose and initial total ER daily dose (round down to next lowest 100mg increment)
- ✓ Do NOT USE CRCL < 30mL/min or severe hepatic insufficiency

Tapentadol (Nucynta®)

- ✓ Estimated that 160mg/day is ~ 50mg morphine equivalents and 300mg/day is ~90mg morphine equivalents
- ✓ Initiate 50mg ER q12h, increase by 50mg/dose qweek, max dose studies 500mg in 24hr.
- ✓ Max dose in moderate hepatic impairment (Child-Pugh class B) 50mg ER q24hr and max 100mg/day
- ✓ Contraindications: use of MAOI, severe renal impairment (<30mL/min), GI obstruction, seizure disorder, severe hepatic impairment (Child-Pugh class C)
- ✓ Common SE: nausea, constipation, somnolence, dizziness, vomiting, fatigue

Nabilone (Cesamet®)

- ✓ Initiate 0.25§-0.5mg qHS, increase by 0.5mg/day qweek, max dose 6mg/day (divided BID)
- ✓ Common SE: drowsiness, dizziness, vertigo, euphoria, lack of coordination, dry mouth, lack of concentration, visual disturbance

Nabiximol (Sativex®)

- ✓ Initiate 1 spray AM and 1 spray afternoon of HS (max dose on first day: 2 sprays); increase by one spray a day as needed and tolerated evenly distributing over course of day. Usual daily dose 4-8 sprays; limited evidence with >12 sprays
- ✓ Contraindications: cardiovascular disease (arrhythmias, severe HF, IHD, poorly controlled HTN), history of psychotic disorder (including schizophrenia)
- ✓ Common SEs: dizziness, fatigue, diarrhea, dry mouth, weakness, loss of energy

NNT= number needed to treat to obtain 1 patient achieving greater than 50% pain relief
NNT* = number needed to treat to obtain 1 patient achieving greater than 50% pain relief or PGIC very much improved
PDN = peripheral diabetic neuropathy, PHN = post herpetic neuralgia, CNP = central neuropathic pain,
NNH= numbers need to treat to experience any adverse effect
NNH (drug W/D) = numbers need to treat to have 1 patient withdraw from study.
§Use lower dose range if age> 65 years or history of sensitivity to CNS meds