www.cpha.com
California Pharmacist 2016
A peer-reviewed publication of the California Pharmacists Association

CLINICAL PRACTICE CAPSULE

Recommendations for the Treatment of Neuropathic Pain

By Andrew Magnaye, PharmD Candidate 2016; Craig S. Stern, RPh, PharmD, MBA, FASCP, FASHP, FICA, FLMI, FAMCP, FCPhA, CSP

ARTICLE HISTORY
Published: October, 2016

INTRODUCTION

Clinical Practice Capsules (CPC) are short summaries of diseases and syndromes written for all prescribers. The CPCs contain a description of the disease/syndrome, diagnostic criteria, treatment algorithms including options and prices. We welcome submissions from all students and practicing pharmacists. Multiple examples are available on the CPhA Journal website.

According to the International Association for the Study of Pain (IASP), neuropathic pain (NP) is "initiated or caused by a primary lesion or dysfunction in the nervous system," and damage in the peripheral or central nervous system is often due to common diseases, injuries, and interventions. The management of NP can be challenging due to the complex and frequently inadequate treatment options. Healthcare professionals must be able to properly diagnose and assess a patient's NP in order to successfully treat his/her condition.

Choice of Therapy

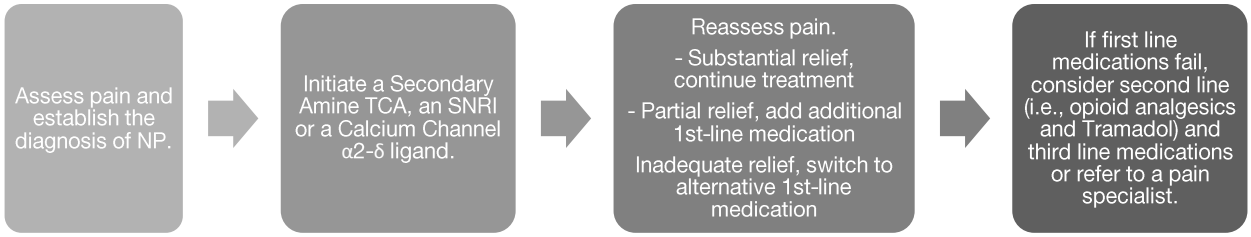
Multiple guidelines with slightly different approaches exist for the treatment of NP. However, most studies have been based around treatment for painful diabetic neuropathy and below are recommendations for treatment options.

American Diabetes Association (ADA) Algorithm for Management of Diabetic Neuropathy

American Academy of Neurology (AAN) Recommendations for Treatment of Diabetic Neuropathy

Level A (Effective)	Level B (Probably Effective)	
Pregabalin 300-600mg/d	**Gabapentin** 900-3600mg/day	**Dextromethorphan** 400mg/day
	Sodium valproate 500-1200mg/day	**Morphine sulfate** titrate to 120mg/day
	Venlafaxine 75-225mg/day	**Tramadol** 210mg/day
	Duloxetine 60-120mg/day	**Oxycodone** max 120mg/day
	Amitriptyline 25-100mg/day	**Capsaicin** 0.075% QID

International Association for the Study of Pain (IASP) Stepwise Approach of Neuropathic Pain Treatment



First-Line Pharmacologic Options

	Dosing	Duration	Side Effects	AWP Cost
Secondary Amine TCAs				
Nortriptyline (PAMELOR)	25 mg at bedtime. Increase by 25 mg daily q 3-7 days. (MAX: 150 mg/day)	6-8 weeks (at least 2 weeks of max tolerated dose)	• Dry mouth, somnolence (initiate therapy at bedtime)	$17
Desipramine (NORPRAMIN)				$82
SNRIs				
Duloxetine (CYMBALTA)	30 mg once daily. After 1 week, increase to 60 mg once daily. (MAX: 60 mg BID)	4 weeks	• Nausea (decreased when Duloxetine is titrated)	$320
Venlafaxine (EFFEXOR)	37.5 mg once or twice daily. Increase by 75 mg weekly. (MAX: 225 mg/day)	4-6 weeks		$110
Calcium Channel α2-δ ligand				
Gabapentin (NEURONTIN)	100-300 mg at bedtime or 100-300 mg TID. Increase by 100-300 mg TID q 1-7 days. (MAX: 3600 mg/day); no benefit > 1800 mg/d	3-8 weeks titration (2 weeks at max dose)	• Sedation, dizziness (reduced when dose is titrated) • peripheral edema (dose-dependent ≥ 1800 mg)	$15
Pregabalin (LYRICA)	50 mg TID or 75 mg BID. Increase to 300 mg/day after 3-7 days. Then by 150 mg/day q 3-7 days. (MAX: 600 mg/day)	4 weeks		$550 (B)

*Pricing is based on AWP Unit Price of all generic/brand (B) formulations available for a 30-day supply of maximum daily dose.

About the Author

Andrew Magnaye, PharmD Candidate USC School of Pharmacy 2016.

Craig S. Stern, PharmD, MBA, is the president of Pro Pharma Pharmaceutical Consultants in Chatsworth, CA, and a professor pharmacy at the University of Southern California, University of California, San Francisco and Western University of Health Sciences. He is a fellow of the Academy of Managed Care Pharmacy, the American Society of Consultant Pharmacists and the American Society of Health-System Pharmacists. Conflict of Interest Disclosure: None reported.

References

1. Bril V, England J, Franklin GM, et al. Evidence-based guideline: Treatment of painful diabetic neuropathy. Neurology 2011;76:1758-1765.
2. Dworkin R, O'Connor A, Backonja M, et al. Pharmacologic management of neuropathic pain: Evidence-based recommendations. Pain 2007;132:237-251.
3. Boulton A, Vinik A, Arezzo J, et al. Diabetic Neuropathies: A statement by the American Diabetes Association. Diabetes Care 2005;28(4):956-962.
4. Red Book Online. Micromedex. www.micromedexsolutions.com (accessed 2016 Feb 2).

