WESTERN NEUROPATHY ASSOCIATION

Neuropathy Hope

Hope through caring, support, research, education, and empowerment

A newsletter for members of Western Neuropathy Association (WNA)

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- Neuropathy And Pharmacy: A Pharmacist's Perspective
- Neuropathy Pain: An Update On Effective Management Strategies
- WNA Support Groups
- President's Message
- PN Literature Review
- Balance

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NEUROPATHY AND PHARMACY: A PHARMACIST'S PERSPECTIVE

By Sonya Wells, Pharm.D., MPH

Please allow me introduce myself. My name is Sonya Wells. I have been a pharmacist for 27 years in the Sacramento area. I also have the privilege of having neuropathy, secondary to Fibromyalgia. I have prepared a set of speeches to help others, like myself, obtain a deeper understanding of the pharmaceutical and non-pharmaceutical treatments of neuropathy. As I expressed in my first series of speeches, there is no known cure for neuropathy. Therefore, the emphasis of treatment rests on symptom relief. So as to preface my first series of speeches on pharmaceutical intervention in peripheral neuropathy, I spent some time reviewing the significance of the unique origins of pain in peripheral neuropathy. This was my intention to arm you with knowledge in a world where the origin and cure of our disease in not yet known. Because knowledge is power!

Some of you have been present for my first series of speeches. However, California-Nevada-Oregon is a rather large area and I have only been able to be present at a small percentage of the neuropathy support groups around Northern California. So, for those of you who are "out of my reach," I have attached the full dialog of my first series of speeches on neuropathic pain and the pharmaceuticals used to treat it. At the various groups which I attended there were varying degrees of discussion throughout the meeting and we "strayed "from the main subject accordingly. It is my intention to give all of you some insight into the pharmaceutical and non-pharmaceutical interventions that our present world of pharmaceutical science can provide. A follow-up article will be presented to you in next month's newsletter regarding my next series of speeches on non-pharmaceutical interventions for peripheral neuropathy.

Happy reading and feel free to e-mail me at wellssakde@hotmail.com if you have any questions about the content of the speech or anything else you wish to know. Please remember your pharmacist is your friend and is capable of answering a wide number of health care questions. Don't hesitate to consult with the pharmacist at your local pharmacy.

NEUROPATHY PAIN: AN UPDATE ON EFFECTIVE MANAGEMENT STRATEGIES

Introduction

Pain adversely affects millions of people every year, impacting their physical and emotional functioning, diminishing quality of life, and reducing functional capabilities. Chronic pain frequently results in absenteeism from work (about 50 million lost workdays each year), as well as "presenteeism," which is defined as reduced productivity at work.[1] Up to 40% of the US population experiences chronic pain annually, and at least four out of 10 chronic pain patients do not achieve adequate pain relief.[2,3]

Many common medical conditions are associated with pain, including cancer, sickle-cell disease, arthritis, low-back problems, diabetes, headache, multiple sclerosis, spinal cord disorders, infectious diseases (e.g., herpes zoster, AIDS), cerebrovascular accidents, and others. Pain is frequently accompanied by comorbid conditions such as anxiety and depressive disorders, and patients with persistent pain are more likely to have unfavorable health perceptions compared with patients not experiencing pain.[4]

Pharmacists frequently interact with patients suffering from chronic pain, and thus are in an excellent position to participate in their management plans. The etiology and management of chronic pain were discussed in sessions at an annual meeting of the American Pharmacists Association (APhA), held March 17-21, 2006, in San Francisco.

Categorizing Pain

Pain can be categorized in many different ways. For example, we can compare and contrast acute versus chronic pain, or malignant versus nonmalignant pain, or we can consider the pathogenesis of the pain. One noted pain researcher has classified pain as adaptive (protecting the body from injury or injury progression) or maladaptive (pain as disease).[5]

– Continued on page 4

Please contact your group leader or check your local paper to find out about the topic/speaker for the upcoming meeting.

Bev Anderson
Editor

Newsletter Design by
Diane Blakley Designs

Roster of Our WNA Information and Support Groups

CALIFORNIA

Alturas
For information call:
Bev Anderson (877) 622-6298

Antioch-Brentwood
3rd Wednesday, 2 PM– odd numbered months
Speaker: Sandra Grafrath, Regional Coordinator
Antioch–Kaiser
AMC-1H2 (from hospital lobby)
Bev Anderson 877-622-6298

Auburn
Next Meeting Oct. 5
1st Monday, 11 AM
Woodside Village MH Park
12155 Luther Road
Sharlene McCord (530) 878-8392

Bakersfield
For information call
Bev Anderson 877-622-6298

Berkeley-Oakland
3rd Wed., 3-4 PM
North Berkeley Senior Center
1901 Hearst Ave.
Kathleen Nagel (510) 653-8625

Carmichael - Eskaton
2nd Tuesday, 1:30 PM
Eskaton, 3939 Walnut Ave.
Karen Robison (916) 972-1632
Call Karen before coming as it is a gated community and sometimes the day/time changes. She welcomes newcomers!

Carmichael - Atria
3rd Thursday, 6 PM
Atria, El Camino Gardens
2426 Garfield, Ave.
Tanysha Kaye (916) 488-5722

Castro Valley
2nd Wednesday, 1:30 PM
First Presbyterian Church
2490 Grove Way (next to Trader Joe)
Judson Leong (510) 581-6697

Clearlake
For information, call
Bev Anderson (877) 622-6298

Concord
Next meeting Sept. 17
Speaker: Bev Anderson, WNA President
3rd Thursday, 1:30 PM
First Christian Church
3039 Willow Pass Road
Wayne Korsinen (925)685-0953

Crescent City
For information call:
Bev Anderson (877) 622-6298

Davis
Next meeting Sept. 8
2nd Tuesday, 3:30-5:00 PM
Davis Senior Center
646 A Street
Mary Sprifke (530) 756-5102

Elk Grove
2nd Tuesday, 1 PM
Elk Grove Senior Center
8830 Sharkey Avenue
Roger White (916) 686-4719

Eureka
For information call:
Earlene (707) 496-3625

Folsom
2nd Thursday, 12:30 PM– odd numbered months
Speaker: Sonya Wells, Pharmacist
Journey Church
450 Blue Ravine Rd.
Bev Anderson (877) 622-6298

Fort Bragg
For information call:
Bev Anderson ((707) 964-3327

Fresno
3rd Tuesday, 11:00 AM
Denny's Restaurant
1110 East Shaw
Marvin Arnold (559) 226-9466

Garberville
For information call:
Bev Anderson (877) 622-6298

Grass Valley
Next meeting Sept. 14
Speaker: Bev Anderson, WNA President
2nd Monday, 1:30 PM
GV United Methodist Church
236 S. Church Street
Salli Hearn (530) 268-1017

Jackson
For information, call
Bev Anderson (877) 622-6298

Lakeport
Lakeport Senior Center
507 Konocti Ave.
Mito Shiraki (707) 245-7605

Lincoln
For information call:
Bev Anderson (877) 622-6298

Livermore
4th Tuesday, 10 AM
Heritage Estates
900 E. Stanley Blvd.
Sandra Grafrath (925) 443-6655

Madera
For information, call
Bev Anderson (877) 622-6298

Merced
2nd Thursday, 1 PM
Central Presbyterian Church
1920 Canal Street
(The Hoffmeiser Center across the street from the church)
Larry Frice (209) 358-2045

Modesto
Next meeting, Sept. 21
3rd Monday, 10:30 AM
Trinity United Presbyterian Church
1600 Carver Rd., Rm. 503
Monte Schrader (209) 531-3838

Monterey
Next meeting, Sept. 16
3rd Wed.,10:30 AM–odd numbered months
First Presbyterian Church
501 El Dorado Street
Don & Ann Trout (831) 372-6959

Napa
1st Thursday, 2 PM
Napa Senior Center
1500 Jefferson Street
Ron Patrick (707) 257-2343
bonjournapa@hotmail.com

Oxnard
For information call:
Bev Anderson (877) 622-6298

Placerville
For information, call
Bev Anderson (877) 622-6298

Quincy
1st Thursday, 1 PM
Our Savior Lutheran Church
298 High St.
Stacey Harrison (530) 283-3702

Redding
For information call:
Tiger Michiels (530) 246-4933

Redwood City
4th Tuesday, 1 PM
Sequoia Hospital Health and Wellness Center
749 Brewster Avenue
Stan Pashote (510) 490-4456

Roseville
Next meeting September 9
Speaker: Sonya Wells, Pharmacist
2nd Wednesday, 1PM - odd numbered months
Sierra Point Sr. Res.
5161 Foothills Blvd.
Carol Brosk (916) 531-2752

Sacramento
3rd Tuesday, 1:30 PM
Northminster Presby. Church
3235 Pope Street
Charles Moore (916) 485-7723

Salinas
Contact Bill Donovan (831) 625-3407

San Francisco
4th Thursday, 10 AM
UC-San Francisco Med Ctr.
400 Parnassus Avenue
Amb. Care Ctr. 8th Flr., Rm A888
Y-Nhy (e nee) Duong
Nhy-y.duong@ucsf.edu

San Jose
3rd Saturday, 10:30 AM
O'Conner Hospital
2105 Forest Avenue
SJ DePaul Conf. Rm.
Stan Pashote (510) 490-4456

San Rafael
3rd Wednesday, 1 PM
Lutheran Church of the Resurrection
1100 Las Galinas Avenue
Scott Stokes (415) 246-9156

Santa Barbara
4th Saturday, 10AM - odd numbered months
The First Methodist Church
Garden & Anapamu
Shirley Hopper (805) 689-5939

– Continued on page 3

President's Message

By Bev Anderson

This month, I received some encouraging notes from people saying that the article in last month's newsletter on hand controls for driving was helpful. Others commented favorably on the article alerting people to be wary of those that will promise something they can't deliver for a high price in a convincing way that many are swayed to a purchase. The marketing strategy is why they can afford large expensive newspaper ads. Some readers sent me ads out of their newspaper for my collection of ads. One person called to let me know that besides neuropathy, some of these companies are claiming to cure low thyroid. Others thanked me for sending them information or responded to a phone call with a lovely note. Any time you want to send a note telling us of something that WNA has done that has helped you, we are always glad to receive it. These are highlights of our days when they arrive.

We are pleased to announce that we have reached one of our goals. With the addition of two new board members, we now have nine people on our Board of Directors. We have an accomplished Board with the two new members bringing some unique knowledge and experience that will benefit our members.

Anne (pronounced Annie) Trim is a Folsom resident and health and medical analyst at Health Net. Her reason for wanting to join the Board is "to work together with like-minded individuals toward a goal of helping support neuropathy efforts."

A number of you have met Sonya Wells, a pharmacist and resident of Roseville, as she has spoken to support groups in the greater Sacramento area and beyond. She has also written articles for the

– Continued on page 8

WNA Information and Support Groups *– continued from page 2*

Santa Cruz
3rd Wednesday, 1PM- odd numbered months
Trinity Presbyterian Church
420 Melrose Avenue
Mary Ann Leer (831) 477-1239
maleer@comcast.net

Santa Maria
For information call
Bev Anderson (877) 622- 6298
or Mary (805) 344-6845

Santa Rosa
1st Thursday, 10:30 AM
Santa Rosa Senior Center
704 Bennett Valley Road
Larry Metzger (707) 541-6776

Sonoma
For information, call
Bev Anderson (877) 622-62988

Sonora
For information, call
Bev Anderson (877) 622-6298

Stockton
For information, call
Bev Anderson (877) 622-6298

Susanville
For information call:
Bev Anderson (877) 622-6298

Thousand Oaks Region
For information, call
Bev Anderson (877) 622-62988

Truckee
For information call:
Bev Anderson (877) 622-6298

Tulare-Visalia
For information call
Bev Anderson (877) 622-6298

Turlock
Next meeting Sept. 21
Speaker: Sonya Wells, Pharmacist
3rd Monday, 1 PM
Covenant Village Adm. Bldg. Classroom
2125 N. Olive St.
Joanne Waters (209) 634-0683

Ukiah
Next meeting, Sept 29
Last Tuesday, 5:30 PM
North Coast Opportunities (NCO)
413 N. State St.
Shirley Blattner (707) 621-0208
Carole Hester (707) 972-2795

Walnut Creek
4th Friday, 10 AM
Rossmoor, Hillside Clubhouse
Las Trampas Room
David Woods (925) 287-8100

West Sacramento
No meeting until new leader is found
Sandra Vinson (916) 372-6093
slvins11@gmail.com

Woodland
Next meeting, Sept. 8
2nd Tuesday, 1:00 PM
Speaker: Sonya Wells, Pharmacist
Woodland Comm & Senior Center
2001 East Street
Elizabeth Chaudhry (530) 661-3859

Yreka
For information call
Bev Anderson (877) 622-6298

Yuba City-Marysville
For information call
Bev Anderson (877) 622-6298

NEVADA

Reno-Sparks
For information call
Bev Anderson (877) 622-6298

OREGON

Brookings
For information, call
Robert Levine (541) 469-4075

Grants Pass
3rd Wednesday, 10:30 AM
Three Rivers Medical Center
500 S.W. Ramsey Ave.
Carol Smith (541) 955-4995

Medford
For information, call
Bev Anderson (877) 622-62988

Portland
For information call
Bev Anderson (877) 622-6298

Salem
Next meeting, Sept. 21
3rd Monday, 6:30 PM
Community Health Education Center
Salem Hospital Campus, Bldg. D
890 Oak Street SE
Michael (503) 857-3508
newsofsalem@gmail.com

Start a support group in your area: Contact Bev Anderson at (877) 622-6298 or info@pnhelp.org

Help With Health Care Challenges
If the number is not in your area, call the one listed and ask for the right number.

Medicare
www.Medicare.gov

•••

The Affordable Health Care Act
For current information go to www.HealthCare.gov

•••

HICAP Health Insurance Counseling
for seniors and people with disabilities.
www.cahealthadvocates.org/HICAP/
Call (800) 434-0222 to ask a question or to make an appointment.

•••

Health Rights Hotline
Serving Placer, El Dorado, Yolo, & Sacramento Counties, regardless where you receive your health coverage.
Tollfree (888) 354-4474
or TDD (916) 551-2180.
In Sacramento,
(916) 551-2100.
www.hrh.org.

•••

HMO Help Center
Assistance
24 hours a day, seven days a week.
(888) HMO-2219
or (877) 688-9891 TDD

•••

DRA's Health Access Project Free publications about the health care, insurance rights and concerns of people with disabilities and serious health conditions. For more information, go to http://dralegal.org/ and click on "Projects".

Neuropathy Pain: An Update On Effective Management Strategies - *Continued from page 1*

Adaptive pain includes nociceptive pain and inflammatory pain. Nociception is the term used to describe the processing of stimuli that damage normal tissue (or may do so with continued exposure to the stimulus) into a conscious pain experience. Clearly, nociceptive pain has some value, because it serves as an early warning system of potential injury from a damaging stimulus.

There are four steps in the nociceptive process: transduction (the conversion of a noxious stimulus into electrical activity in the afferent primary peripheral neurons); transmission (moving the neural impulse from the site of transduction to the brain); perception (interpreting the neural impulse relayed from the periphery as pain); and modulation (changing or inhibiting the pain impulse).

Inflammatory pain occurs when the body shifts its attention to healing the injured tissue. For example, the injured area is far more sensitive to further injury, and the person is motivated to protect the damaged area. If you had a broken arm, you would inherently protect the injured arm from further injury, and any stimulus (e.g., touch or pressure) would readily evoke pain as a protective mechanism.

Neuropathic pain is a prime example of maladaptive pain. The International Association for the Study of Pain (IASP) has defined neuropathic pain as "pain initiated or caused by a primary lesion or dysfunction of the nervous system."[6] These lesions may be in the peripheral or central nervous system, and frequently both systems are involved with chronic neuropathic pain states. Many commonly experienced persistent pain states are partially or completely neuropathic in nature. Examples include phantom limb and spinal cord injury pain, painful diabetic neuropathy, post-herpetic neuralgia, sciatica, trigeminal neuralgia, and drug-induced (e.g., vinca alkaloids) neuropathy.

Backonja[7] defines neuropathic pain and differentiates it from other types of pain as follows:

Pain and sensory symptoms that persist beyond the healing period. Presence, in variable degree, of neurological sensory signs manifesting as negative and positive sensory phenomena. Presence, in variable degree, of other neurological signs, including motor, manifesting as negative and positive motor phenomena or autonomic signs.

Reference to the presence of negative and positive sensory phenomena indicates abnormal sensations that are seen on physical exam. Neuropathic pain may be "stimulus-evoked" by light touch, pressure of clothing or bedding, or either hot or cold temperatures. Pain in response to a non-painful stimulus is referred to as "allodynia." An exaggerated pain response to a painful stimulus (eg, a pinprick) is termed "hyperalgesia."[8] Patients also may complain of hypoesthesia (diminished sensation), paresthesia (an abnormal sensation), or dysesthesia (an unpleasant abnormal sensation).[8]

Spontaneous neuropathic pain is usually described by the patient as a constant burning, plus intermittent pain that may be described as "shooting" or "electric shock-like." Patients with painful diabetic neuropathy, for example, frequently describe the pain as though they were "walking on broken glass," "buzzing," or feeling the sensation of bugs crawling on their feet.

Negative sensory phenomena refer to loss of sensation, such as loss of feeling secondary to pinprick, thermal, tactile, or vibratory sensation. For patients with diabetic neuropathy, it is important to explain the importance of the loss of this protective sensation.

So what pathophysiologic changes occur to produce symptomatic, persistent neuropathic pain? Changes may occur in both the peripheral and central nervous systems.[5,9]

Changes in the peripheral nervous system include the following:

§ Ectopic discharge and ephaptic conduction. After nerve injury, there is an increase in the level of spontaneous firings from newly formed nerve sprouts, or neuromas, which have grown from the injured nerve. This ectopic activity is likely due to changes in the sodium channels. After some period of time, atypical connections may develop between the nerve sprouts and neighboring afferent neurons, leading to "ephaptic conduction" or "cross-talk" between neurons. Therefore, pain that results from peripheral nerve damage may originate in injured or intact sensory neurons.

§ Alterations in ion channel expression. Sodium channels are critical to the physiology of excitable membranes, such as neurons, and are likely increased in number and density with neuronal damage. Calcium channels may also be affected with peripheral nerve injury.

§ Other causes of peripheral sensitization include heightened responsiveness to inflammatory mediators released by damaged cells, collateral sprouting of primary afferent neurons, and sprouting of sympathetic neurons in the dorsal root ganglion.

After peripheral nerve injury, there is considerable reorganization of the spinal cord. Within several weeks of nerve damage, new growth of the central terminals of the low-threshold afferents (sensory

– *Continued on page 5*

DISCOUNTS FOR WNA MEMBERS

The following companies or individuals have agreed to give WNA a discount to WNA members. Give them a call or visit. If you choose to purchase the service or wares of any on this list, pull out your PCNA/WNA Membership Card and claim the discount.

Anodyne Therapy
Infrared Light Therapy equipment - **$50 off Model Freedom 300 (single leg at a time) and $50 discount on Model 120 that does both legs at the same time.** Contact: 800-521-6664 or www.anodynetherapy.com

HealthLight Infrared Light Therapy equipment - **10% off Single Boot System and Dual boot system.**
Contact: 888-395-3040 or www.healthlight.us

Auburn
The Footpath
825 Lincoln Way
(530) 885-2091
www.footpathshoes.com
PCNA Discount: 10% off the regular price shoes.

Elk Grove
Shoes That Fit
8649 Elk Grove Blvd.
(916) 686-1050
PCNA Discount: 20% off the regular price shoes.

Fortuna
Strehl's Family Shoes & Repair
Corner of 12th & Main
1155 Main Street
(707) 725-2610
Marilyn Strehl, C.PED is a Certified Pedorthic
PCNA Discount: 10% off the regular price shoes.

Sacramento
Midtown Comfort Shoes
3400 Folsom Blvd.
(916) 731-4400
PCNA discount: 15% on the regular price.

– *Continued on page 5*

Neuropathy Pain: An Update On Effective Management Strategies - *Continued from page 4*

fibers) terminate where the pain impulse neurons usually terminate exclusively. This pathophysiologic change explains how the normal sensation of touch can be perceived as pain.

Treatment of Neuropathic Pain

Pharmacists who attended the APhA annual meeting had an opportunity to attend an educational session titled "Neuropathic Pain." In this session, pharmacists learned about the pathogenesis and clinical presentation of neuropathic pain, as well as treatment options.

When considering pharmacologic options to treat chronic pain, we first think of non-opioids (e.g., acetaminophen, nonsteroidal anti-inflammatory agents), opioids, and co-analgesics. Generally speaking, the non-opioids are unlikely to provide any significant degree of pain relief in patients with neuropathy. Given the complicated nature of neuropathic pain, it is not surprising to find that, at best, an opioid or co-analgesic agent will effect a 30% reduction in the pain severity rating. In fact, this response is considered to be "clinically important" and, at this level, patients will report "moderate relief" or say they are "much improved." The medications used to treat neuropathic pain commonly cause adverse effects and are frequently involved in drug interactions. Careful analgesic selection and dosage titration are required, as many patients with neuropathic pain are elderly, take multiple medications, and have numerous comorbid conditions.

At present there are only five co-analgesic agents that carry US Food and Drug Administration (FDA)-approved indications for neuropathic pain. These are carbamazepine (Tegretol [Novartis]) for trigeminal neuralgia, gabapentin (Neurontin [Parke-Davis]) and transdermal lidocaine (LidoDerm [Endo]) for post-herpetic neuralgia, duloxetine (Cymbalta [Eli Lilly]) for diabetic neuropathy, and pregabalin (Lyrica [Pfizer]) for both diabetic neuropathy and post-herpetic neuralgia. However, there is a significant body of literature demonstrating the effectiveness of these and other co-analgesics in treating a wide variety of neuropathic pain states.

Alpha2-Delta Ligands

Gabapentin was the first alpha2-delta ligand introduced to the market as an antiepileptic drug. At least eight clinical trials have shown gabapentin to be effective in treating a variety of neuropathic pain states, including post-herpetic neuralgia, painful diabetic neuropathy, mixed neuropathic pain syndromes, phantom limb pain, Guillain-Barré syndrome, and spinal cord injury pain.

Adverse effects associated with gabapentin therapy include somnolence, dizziness, gait and balance problems, and, less frequently, gastrointestinal complaints and peripheral edema. To maximize tolerability and acceptance of gabapentin therapy, it is vital that the practitioner start at a low dose (e.g., 100 mg qhs to 300 mg qhs) and titrate upward. After starting with a single bedtime dose, increase to twice-daily dosing, then to 3 times daily. Keeping the three times daily dosing interval, increase the total daily dose as tolerated, making adjustments every one to seven days as tolerated by the patient. It may take several weeks to get to the target dose for an individual patient, and this may range from 1800 to 3600 mg per day.

Pregabalin is another alpha2-delta ligand that is closely related to gabapentin. Not surprisingly, pregabalin has adverse effects that are quite similar to those seen with gabapentin, although patients seem to tolerate more rapid dosage titration. The recommended starting dose is either 50 mg three times daily or 75 mg twice daily, with titration to 300 mg daily after several days. Dosage of both gabapentin and pregabalin should be adjusted in patients with renal impairment.

Opioid Analgesics

Opioid analgesics have been the backbone of management of moderate to severe pain for thousands of years. Of interest, opioids have been unfairly maligned as ineffective analgesics for the management of neuropathic pain. Several double-blind, randomized clinical trials published in the last decade have demonstrated the effectiveness of opioids in treating a variety of neuropathic pain conditions such as post-herpetic neuralgia, painful diabetic neuropathy, and a variety of mixed peripheral and central neuropathic pain syndromes. Using opioids adjunctively with other co-analgesics, both at lower doses, has also been an effective strategy. For example, a study recently published in The New England Journal of Medicine [14] showed the combination of morphine plus gabapentin was more effective than either drug alone at higher doses.

The most common adverse effects associated with opioid therapy include constipation (to which tolerance will not develop), nausea, sedation, and confusion. All patients taking opioids chronically will develop some physical dependence, so therapy cannot be stopped abruptly. However, in patients with no previous history of drug abuse or diversion, psychological dependence is unlikely to develop when using these agents to treat chronic pain.

Some practitioners recommend starting with a short-acting opioid and switching to a longer-acting opioid once the effective daily dose is reached. Others begin with the lowest dose of a long-acting opioid and titrate

– *Continued on page 6*

DISCOUNTS FOR WNA MEMBERS

Continued from page 4

West Sacramento

Beverly's Never Just Haircuts and Lilly' Nails
2007 W. Capitol Ave, West
Hair–(916) 372-5606
Nails–(916) 346-8342
PCNA discount: 10% off the regular price.

Neuropathy Support Formula
(1-888-840-7142) is a supplement that a sizable number of people are taking and reporting it has helped them. The company gives members of WNA a discount and free shipping. The 30-day supply is $40 (normally $49.97). It can be auto-shipped monthly for the same. A 3-month supply via auto-ship is $95.00. They also have a Nerve Repair Optimizer that is available for $20 with free shipping. Marsha, the manager, said that if anyone wants more information about the product, they can call and ask for her. If she is not readily available, leave your number and she will call you back.

Free DVD on "Coping with Chronic Neuropathy", introduced by Dominick Spatafora of the NAF and endorsed by major university neurologists, is available by contacting the Neuropathy Support Network at www.neuropathysupportnetwork.org/order-neuropathy-dvd.html

Additional Discounts
Do you know a business that might offer our members a discount? Tell them that they will be listed each month in our newsletter and on our website so our members will know of their generosity and patronize their business. Call (877) 622-6298 or e-mail info@pnhelp.org.

We'll mail an agreement form to the business, and once we have it, we'll add them to this list.

accordingly. Oral long-acting opioids include morphine (MS Contin [Purdue Frederick], Kadian [Alpharma], Avinza [Ligand], and generic long-acting), oxycodone (OxyContin [Purdue Frederick] and generic long-acting), and methadone (dosed every eight to 12 hours for pain control). Transdermal fentanyl is also available, and the patch is usually changed every 72 hours (some patients require that it be changed every 48 hours). Caution is advised with "combination" analgesics such as hydrocodone plus acetaminophen (Vicodin [Abbott] or Lortab [UCB Pharma]) or oxycodone plus acetaminophen (Percocet [Endo]). Even though there is no ceiling dose for the opioid component, the total daily acetaminophen dose should not exceed four grams.

Tramadol

Tramadol (Ultram [Ortho McNeil]; tramadol with acetaminophen as Ultracet [Ortho McNeil]) is a norepinephrine and serotonin reuptake inhibitor that has a weak mu opioid agonist as one of its metabolites. Tramadol is effective in treating painful diabetic neuropathy and polyneuropathy of various causes. Adverse effects include nausea, somnolence, constipation, dizziness, and orthostatic hypotension. Tramadol has also been shown to lower the seizure threshold. Caution should be used with other medications that increase serotonin levels because of an increased risk of serotonin syndrome.

The initial dose should be 50 mg once or twice daily, increased every three to seven days by 50 to 100 mg. The maximum daily dose is 400 mg in patients younger than 75 years, and 300 mg in older patients. Dosage should be further reduced in renal impairment.

5% Lidocaine Transdermal Patch

There are two published clinical trials demonstrating efficacy of the five percent lidocaine transdermal patch in treating post-herpetic neuralgia. Additional data have been published on the efficacy of this product in treating osteoarthritis of the knees and for other non-approved indications.

The FDA-approved dosing schedule is 12 hours on (with patches cut as needed and applied directly to the painful sites) and 12 hours off. With normal hepatic function, blood levels are minimal and the lidocaine does not accumulate. Adverse effects are minimal and include erythema or rash at the application site. The maximum recommended dose is three patches worn concurrently.

Tricyclic Antidepressants (TCA)

TCAs were among the earliest medications shown to have analgesic efficacy as "adjuvants" or "co-analgesics." Early clinical trials used amitriptyline, but later research has demonstrated the effectiveness of other TCAs such as desipramine and nortriptyline, which tend to be better tolerated than amitriptyline. Adverse effects can be considerable with the TCAs and include anticholinergic effects (eg, dry mouth, blurred vision, constipation, urinary retention, and cognitive impairment), sedation, and orthostatic hypotension. Of particular concern are the cardiovascular adverse effects and the risks associated with overdose.

Dosing should begin with 10 mg (older adults) or 25 mg at bedtime, and should be increased every three to seven days as tolerated. Generally, pain relief is achieved with 75-100 mg per day.

SNRI Antidepressants

The SNRIs are the latest group of co-analgesics used to treat neuropathic pain. Venlafaxine (Effexor [Wyeth]) and duloxetine have both been shown to be efficacious in treating neuropathic pain conditions, although duloxetine is the only SNRI with an FDA-approved indication for neuropathy (painful diabetic neuropathy).

Second-Line Co-analgesics

There are a variety of co-analgesics that could be considered "second-line" beyond those described above. Other antiepileptic agents include the first-generation agents (e.g., phenytoin and carbamazepine) and second-generation agents (e.g., lamotrigine, levetiracetam, oxcarbazepine, tiagabine, topiramate, and zonisamide). There are fewer data evaluating the role of these agents in the treatment of neuropathic pain.

The SSRIs have been disappointing in terms of pain relief, although they are better tolerated than the TCAs. Other co-analgesics include capsaicin, clonidine, dextromethorphan, and mexiletene.

Selecting a Co-analgesic Agent

As with the pharmaco-therapeutic management of any condition, there are many variables that affect drug therapy selection. Consider comorbid conditions (e.g., renal impairment or osteoarthritis), risk factors for adverse effects, age and cognitive status, and financial implications of therapy. Because any one co-analgesic is unlikely to completely relieve the neuropathic pain, some have suggested that combinations of analgesics be selected based on complementary mechanisms of action.

For example, co-analgesics that act to reduce peripheral sensitization are drugs that affect the sodium channels (e.g., carbamazepine, oxcarbazepine, phenytoin, topiramate, lamotrigine, lidocaine, and mexiletine). Co-analgesics that address central sensitization by affecting calcium channels include gabapentin, pregabalin, levetiracetam, oxcarbazepine, lamotrigine, topiramate, and ziconotide. TCAs, SNRIs, tramadol, and opioids will enhance the descending inhibitory pathway.[15]

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– Continued on page 7

PERIPHERAL NEUROPATHY LITERATURE REVIEW By William B. Donovan, M.D.

We can access the National Library of Medicine (**NLM**) to obtain information on peripheral neuropathy (**PN**). There are over 100 medical articles a month written on PN.

I review these references and select articles that would appear to be most interesting to us neuropathy sufferers. This is the link to **PubMed** that will take us to the **NLM: www.ncbi.nlm.nih.gov/sites/entrez**

If you are reading this article on the computer, just click on the above link to go there. If you are reading the print edition of the newsletter, type this link into the address bar of the browser on a computer. If you don't know how, get a librarian or friend to help you.

After you get to **PubMed,** you will see a line that says "**Search** *_PubMed*" followed by "**for**" and a space. Every article in the **NLM** is given a **PMID,** an eight digit identification number. I will give you **PMID** numbers of the selected articles. Type the **PMID** into the space after the "**for**" and click on "**Go**" at the end of the space, or press the ENTER key on your keyboard. You will then see a one paragraph abstract of the article appear, as well as links to related articles.

This month's PMIDs:

- 9583771 This randomized controlled trial of analgesia for post-surgical pain in 15 cancer patients found that amantadine (Symmetrel®) 200mg administered intravenously on two occasions a week apart reduced pain by 85%, where placebo reduced pain by 45% (p=0.009).
- 12581262 This double blind randomized placebo controlled crossover study of amantadine 200mg in a single infusion for painful diabetic peripheral neuropathy showed a significant improvement (p=0.003) over placebo, sustained for at least a week.
- 14566521 This uncontrolled open 4 week trial of oral amantadine (Symmetrel®) 200mg daily with 19 neuropathic pain patients found intolerable side effects in over half. Only two patients had good or excellent pain relief.
- 14982566 This placebo controlled double blind randomized crossover study of 15 posttraumatic neuropathy patients at the University of Oslo compared dextromethorphan (DM) 270mg with placebo. At high doses of DM light-headedness was a problem for some. Analgesia was achieved with extensive metabolizers indicating that the main metabolite, dextrorphan, was important for analgesia
- 15047649 This study assessed the effectiveness of low-intensity ("cold") laser therapy (LILT) for painful symptoms of diabetic sensorimotor polyneuropathy (DSP). After conducting a randomized double-masked sham therapy, controlled trial of biweekly sensing of either sham or LILT for four weeks," ...results do not provide sufficient evidence to recommend this treatment for painful symptoms of DSP.

BALANCE From YOUR BODY BOOK by Doranne Long, PT, MS

To improve balance, practice standing on one foot. Stand next to a counter or railing as needed for safety. Standing on a soft surface such as a couch cushion and/or balancing with eyes closed is more challenging. It is best to practice barefoot. The goal is to balance at least 10 seconds on each leg.

For improved leg strength, do small squats (about a 30 degree knee bend), pain free, without popping/grinding of the knee cap (patella). Standing on one leg and doing small squats improves both strength and balance. Build up to 30 or more repetitions.

For additional strength, balance, and coordination, walk: forward, backward, sideways, on toes, on heels, heel to toe with one foot directly in front of the other. Use a counter or railing as needed for safety.

Balance activities should usually be done once a day, about five minutes or more until tired.

Neuropathy Pain: An Update On Effective Management Strategies - *Continued from page 6*

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President's Message – *Continued from page 3*

newsletter. This month's article authored by Sonya, provides significant and important information.. I suggest you make a copy and take it to your doctor as a gift. Her reason for joining the board is "I wish to add insight regarding both experience with neuropathy and Fibromyalgia as well as perspective from a health care professional standpoint. I also have a master's degree in public health so I can offer a perspective on approaches to disease management and education on a generalized level."

Thank you to those of you who are joining WNA, renewing your membership, and making contributions. Do remember that your dues and contributions are tax deductible when you do your income taxes. Some groups send out a monthly contribution opportunity. We send ours twice a year. However, any time you find it in your heart to give, you can always mail something in or give a contribution on our website. Some people do this from time to time or even monthly.

With the three healthcare medical people on our Board and William Donovan, MD, in Monterey, we are designing an approach to doctors and other health care professions to educate them about neuropathy. There will be a cost for this but it will be a great help to all of us. Plans are being laid for next year's conference in April that will have a special medical focus. We hope to have a sponsor but there are always added costs.

September ushers in the Fall season. I'm trusting for rain early and often enough to at least put a big dent in the drought.

Bev

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Our mission is to provide support, information and referral to people with neuropathy and to those who care about them, to inform and connect with the health care community, and to support research.

Dues - $30 a year
All contributions and dues are tax-deductible.

We are supported by dues-paying members, contributions by members and friends, and occasionally, small grants and fundraisers.