

PAIN MANAGEMENT COMPOUNDS

**** CALL PHARMACY FOR PRICING DETAILS ****

1-800-523-1486

Neuropathic Pain Creams:

1. Neuropathic Cream

(Ketoprofen 5%/amitriptyline 2%/gabapentin 2%/tetracaine2%/lidocaine5% in cream base)

- ❖ **Uses:** Neuropathic pain
 - ✓ **Ketoprofen** is an anti-inflammatory drug
 - ✓ **Amitriptyline** relieves nerve pain/tricyclic antidepressant
 - ✓ **Gabapentin** is a seizure medication that has been shown to be very beneficial for treating neuropathic pain. It prevents allodynia and hyperalgesia.
 - ✓ **Tetracaine and Lidocaine** are topical anesthetics to numb the area treated
- ❖ **Precautions/warnings:** Do not use on broken skin/blisters. Do not occlude area. Hypersensitivity to any ingredients. Pregnancy/Breastfeeding. Do not use with oral NSAIDS.
- ❖ **Comments:** Apply a small amount topically to painful area 3 to 4 times daily. Wash hands after application and avoid contact with eyes and mouth. This is a very effective treatment for neuropathic pain, we have seen great results and are getting great feedback from physicians and patients about this compound.

2. Neuropathic Pain with Inflammation Cream

(Ketoprofen 20%/Gabapentin 5%/Lidocaine 5%/Ketamine 2% in cream base) *Ketamine is CIII*****

- ❖ **Uses:** Neuropathic pain and inflammation
 - ✓ **Ketoprofen** is an anti-inflammatory drug
 - ✓ **Gabapentin** is a seizure medication that has been shown to be very beneficial for treating postherpetic neuralgia. It prevents allodynia and hyperalgesia
 - ✓ **Lidocaine** is a topical anesthetic used to numb the treated area
 - ✓ **Ketamine** is an anesthetic typically used for general anesthesia and can be used alone for surgical procedures that do not require skeletal muscle relaxation. Has less cardiorespiratory depressant effects than other anesthetic agents. Interacts with NMDA receptors, opioid receptors, monoaminergic receptors, muscarinic receptors and voltage sensitive Ca⁺⁺ ion channels. Can reduce the effects of Substance P. Does not interact with GABA receptors.
- ❖ **Precautions/warnings:** Do not use on broken skin/blisters. Do not occlude area. Hypersensitivity to any ingredients. Pregnancy/Breastfeeding. Do not use with oral NSAIDS.
- ❖ **Comments:** This cream is a stronger version of the other topical neuropathic/anti-inflammatory creams. It contains the higher strength of ketoprofen and gabapentin and also contains ketamine.

3. Sciatica Cream

(Flurbiprofen 10%/Cyclobenzaprine 2%/Ketoprofen 10%/Bupivacaine 3%/Pentoxifylline 3% in cream base)

- ❖ **Uses:** Treatment of pain.
 - ✓ **Flurbiprofen** is an anti-inflammatory drug, shown to be beneficial in neuropathic pain
 - ✓ **Cyclobenzaprine** is a centrally acting skeletal muscle relaxant closely related to the antidepressant amitriptyline use to reduce pain and tenderness and improve mobility. It binds to the serotonin receptor and is considered a 5-HT₂ receptor antagonist reducing muscle tone by decreasing the activity of descending serotonergic neurons.
 - ✓ **Ketoprofen** is an anti-inflammatory drug

- ✓ **Bupivacaine** is an anesthetic used to numb the treated area
- ✓ **Pentoxifylline** is a hematologic agent that has been studied in diabetic angiopathies and neuropathies. It improves blood flow by decreasing blood viscosity.
- ❖ **Precautions/warnings:** Do not use on broken skin/blisters. Do not occlude area. Hypersensitivity to any ingredients. Pregnancy/Breastfeeding. Do not use with oral NSAIDS.
- ❖ **Comments:** Apply to the lower back/hip area at first to relieve pain. Work cream further down as necessary for pain relief.

4. Neuralgia Cream

(Gabapentin 6%/Ketamine 2%/Baclofen 2%/Cyclobenzaprine 2%/Diclofenac 3%/Lidocaine 2% in cream base) *ketamine is CIII*****

- ❖ **Uses:** Neuropathic pain
 - ✓ **Gabapentin** is a seizure medication that has been shown to be very beneficial for treating neuropathic pain. It prevents allodynia and hyperalgesia
 - ✓ **Ketamine** is an anesthetic typically used for general anesthesia and can be used alone for surgical procedures that do not require skeletal muscle relaxation. Has less cardiorespiratory depressant effects than other anesthetic agents. Interacts with NMDA receptors, opioid receptors, monoaminergic receptors, muscarinic receptors and voltage sensitive Ca⁺⁺ ion channels. Can reduce the effects of Substance P. Does not interact with GABA receptors.
 - ✓ **Baclofen** is a centrally acting skeletal muscle relaxant. It has been shown to relieve pain associated with trigeminal neuralgia by decreasing the release of excitatory amino acids presynaptically and by producing postsynaptic neuronal hyperpolarization, extending use for other types of neuropathic pain.
 - ✓ **Cyclobenzaprine** is a centrally acting skeletal muscle relaxant closely related to the antidepressant amitriptyline use to reduce pain and tenderness and improve mobility. It binds to the serotonin receptor and is considered a 5-HT₂ receptor antagonist reducing muscle tone by decreasing the activity of descending serotonergic neurons.
 - ✓ **Diclofenac** is an anti-inflammatory drug
 - ✓ **Lidocaine** is an anesthetic used to numb the treated area
- ❖ **Precautions/warnings:** Hypersensitivity to any ingredients. Do not use on broken skin/blisters, do not occlude the area. Pregnancy/Breastfeeding. Do not use with oral NSAIDS. May cause drowsiness, avoid alcohol with use.
- ❖ **Comments:** This cream is designed to combat pain from many different angles. The combination of and AMPA-Na Channel blocker, NMDA-Ca Channel blocker, muscle relaxers, anti-inflammatory and local anesthetic make it one of the strongest creams compounded.

Inflammatory Pain Creams:

1. Arthritis Cream

(Tramadol 2%/Diclofenac 3%/Ketoprofen 10%/Lidocaine 2% in cream base) **Tramadol is CIV******

- ❖ **Uses:** Relief of pain and inflammation caused by rheumatoid and/or osteoarthritis.
 - ✓ **Tramadol** is a centrally acting synthetic opioid analgesic. Mechanism is not completely understood, but binding of parent and M1 metabolite to mu-opioid receptors and weak inhibition of reuptake of norepinephrine and serotonin appear to be the mechanisms for pain relief.
 - ✓ **Diclofenac** is an anti-inflammatory drug
 - ✓ **Ketoprofen** is an anti-inflammatory drug
 - ✓ **Lidocaine** is an anesthetic used to numb the treated area

- ❖ **Precautions/warnings:** Hypersensitivity to any ingredients. Do not use on broken skin/blisters, do not occlude the area. Pregnancy/Breastfeeding. Do not use with oral NSAIDS. Caution in patients using antidepressants due to increased risk of serotonin syndrome from the tramadol. Monitor for serotonin syndrome.
- ❖ **Comments:** Wait until area is dry then apply sunscreen to affected area. (Diclofenac can cause photosensitivity) Best results when applied three times daily.

2. Anti-Inflammatory Cream

(Ketoprofen 10% or 20% add Lidocaine 10% (optional) in cream base)

- ❖ **Uses:** Relief of pain from arthritis, injuries, local inflammation.
- ❖ **Precautions/warnings:** Hypersensitivity to active/inactive ingredient. Pregnancy/Breastfeeding. Do not use with oral NSAIDS.
- ❖ **Comments:** This compound is very beneficial for patients who cannot take NSAIDS by mouth due to ulcer risk/ cardiovascular risk. Minimal amounts of drug are absorbed into system, reducing risks of side effects.

3. Gout Cream

(Ketoprofen 10%/Indomethacin 0.1%/Triamcinolone 2%/Lidocaine 5% in cream base)

- ❖ **Uses:** Pain caused by gout.
 - ✓ **Ketoprofen** is an anti-inflammatory drug
 - ✓ **Indomethacin** inhibits inflammation by inhibition of prostaglandin synthesis with greater selectivity for COX-1. (is commonly used in acute gouty arthritis)
 - ✓ **Triamcinolone** is a synthetic glucocorticoid used to reduce inflammation
 - ✓ **Lidocaine** is a topical anesthetic used to numb the treated area
- ❖ **Precautions/warnings:** Hypersensitivity to any ingredients, do not apply to broken skin. Do not occlude the area. Pregnancy/Breastfeeding. Do not use with oral NSAIDS.
- ❖ **Comments:** The pain caused from an acute gout “attack”, also known as gouty arthritis, is a deposition of sodium urate crystals in connective tissues and articular cartilage around a joint or joints. This deposition causes extreme inflammation in the joint and surrounding tissues. NSAIDS and steroids have long been known to be highly effective at treating gout related pain and inflammation; however, their dangerous side effects include gastrointestinal discomfort, bleeding, and cardiovascular events. Topical use of creams for pain not only drastically reduce these side effects, it allows for continued high dose use as needed.

Shingles Pain Creams/Sprays:

1. Shingles Cream

(Ketoprofen 10%/Acyclovir 5%/Lidocaine 5% OR Tetracaine 0.75% in cream base)

- ❖ **Uses:** Pain from acute Herpes Zoster infection.
 - ✓ **Ketoprofen** is an anti-inflammatory drug
 - ✓ **Acyclovir** is an antiviral medication that stops the replication of the herpes viral DNA
 - ✓ **Lidocaine** and **Tetracaine** are anesthetics used to numb the treated area
- ❖ **Precautions/warnings:** Avoid eye area!!! Hypersensitivity to any ingredients. Do not use on broken skin/blisters, do not occlude the area. Pregnancy/Breastfeeding. Do not use with oral NSAIDS.
- ❖ **Comments:** Shingles can cause significant pain. This particular cream is for use during active infection to relieve pain from inflammation, combat the virus directly with acyclovir, and to numb the area for optimal pain relief.

2. Shingles 2 Cream

(Acyclovir 5%/Carbamazepine 2%/Ketamine 10%/

Lidocaine 2%/Gabapentin 4%/Diclofenac 3% in cream base) ****ketamine is CIII****

- ❖ **Uses:** Pain from acute Herpes Zoster infection/post herpetic neuralgia
 - ✓ **Acyclovir** is an antiviral medication that stops the replication of the herpes viral DNA
 - ✓ **Carbamazepine** is an anticonvulsant that may produce analgesia by raising the threshold for repetitive firing of neurons involved in nociception and may activate certain pathways for pain suppression in the CNS. Although carbamazepine's mechanism of action is unknown, it appears to act by reducing polysynaptic responses and blocking posttetanic potentiation
 - ✓ **Ketamine** is an anesthetic typically used for general anesthesia and can be used alone for surgical procedures that do not require skeletal muscle relaxation. Has less cardiorespiratory depressant effects than other anesthetic agents. Interacts with NMDA receptors, opioid receptors, monoaminergic receptors, muscarinic receptors and voltage sensitive Ca⁺⁺ ion channels. Can reduce the effects of Substance P. Does not interact with GABA receptors.
 - ✓ **Lidocaine** is an anesthetic used to numb the treated area
 - ✓ **Gabapentin** is a seizure medication that has been shown to be very beneficial for treating neuropathic pain in postherpetic neuralgia. It prevents allodynia and hyperalgesia
 - ✓ **Diclofenac** is an anti-inflammatory drug
- ❖ **Precautions/warnings:** History of bone marrow depression; coadministration with monoamine oxidase inhibitors (MAOIs) or within 14 days of MAOI use (carbamazepine). Hypersensitivity to any ingredients. Do not use on broken skin/blisters, do not occlude the area.
Pregnancy/Breastfeeding. Do not use with oral NSAIDs. May cause drowsiness, avoid alcohol with use.
- ❖ **Comments:** The shingles 2 cream is much stronger than the original shingles cream. Use for active infection to relieve pain from inflammation, combat the virus directly with acyclovir, and to numb the area for optimal pain relief. This one also addresses neuropathic pain associated with shingles.

3. Shingles Numbing Spray:

(Lidocaine 10%/Tetracaine 5%/Prilocaine 5%/Bupivacaine 1% topical spray in DMSO)

- ❖ **Uses:** Relieve pain. All ingredients are anesthetics used to numb the treated area
- ❖ **Precautions/warnings:** Hypersensitivity to any ingredients. Do not use on broken skin/blisters, do not occlude the area. Pregnancy/Breastfeeding.
- ❖ **Comments:** Since shingles causes such exquisite pain that can be aggravated by any sort of touch, this is a nice dosage form that can be sprayed on in a light mist rather than a cream that requires application by rubbing in. Counsel patients to avoid getting the spray in their eyes. Spray 3 to 4 sprays 3 to 4 times daily to the affected area as needed.
(~0.095ml/spray, so 60 ml would last somewhere between 30 to 60 days)

4. Shingles Pain Spray:

(Ketamine 10%/Bupivacaine 0.75% topical spray)

- ❖ **Uses:** Relieve pain.
 - ✓ **Ketamine** is an anesthetic typically used for general anesthesia and can be used alone for surgical procedures that do not require skeletal muscle relaxation. Has less cardiorespiratory depressant effects than other anesthetic agents. Interacts with NMDA receptors, opioid receptors, monoaminergic receptors, muscarinic receptors and voltage sensitive Ca⁺⁺ ion channels. Can reduce the effects of Substance P. Does not interact with GABA receptors.
 - ✓ **Bupivacaine** is an anesthetic used to numb the treated area

- ❖ **Precautions/warnings:** Hypersensitivity to any ingredients. Do not use on broken skin/blisters, do not occlude the area. Pregnancy/Breastfeeding. May possibly cause drowsiness, avoid alcohol with use.
- ❖ **Comments:** Ketamine addresses neuropathic pain from shingles and works well with bupivacaine for an immediate and then a sustained relief of pain. Spray 3 to 4 sprays 3 to 4 times daily to the affected area as needed.
(~0.095ml/spray, so 60 ml would last somewhere between 30 to 60 days)

Fibromyalgia Options:

1. Fibromyalgia Cream
2. Low Dose Naltrexone
3. Cyanocobalamin

1. Fibromyalgia Cream

(Ketoprofen 10%/Ketamine 10%/Tramadol 2%/Baclofen 2%/Lidocaine 2% in cream base)

****ketamine is CIII****

- ❖ **Uses:** Pain and inflammation.
 - ✓ **Ketoprofen** is an anti-inflammatory drug.
 - ✓ **Ketamine** is an anesthetic typically used for general anesthesia and can be used alone for surgical procedures that do not require skeletal muscle relaxation. Has less cardiorespiratory depressant effects than other anesthetic agents. Interacts with NMDA receptors, opioid receptors, monoaminergic receptors, muscarinic receptors and voltage sensitive Ca⁺⁺ ion channels. Can reduce the effects of Substance P. Does not interact with GABA receptors.
 - ✓ **Tramadol** is a centrally acting synthetic opioid analgesic. Mechanism is not completely understood, but binding of parent and M1 metabolite to mu-opioid receptors and weak inhibition of reuptake of norepinephrine and serotonin appear to be the mechanisms for pain relief.
 - ✓ **Baclofen** is a centrally acting skeletal muscle relaxant. It has been shown to relieve pain associated with trigeminal neuralgia by decreasing the release of excitatory amino acids presynaptically and by producing postsynaptic neuronal hyperpolarization, extending use for other types of neuropathic pain.
 - ✓ **Lidocaine** is an anesthetic used to numb the treated area.
- ❖ **Precautions/warnings:** Hypersensitivity to any ingredients. Do not use on broken skin/blisters, do not occlude the area. Pregnancy/Breastfeeding. Do not use with oral NSAIDS. Caution in patients using antidepressants due to increased risk of serotonin syndrome from the tramadol. Monitor for serotonin syndrome.
- ❖ **Comments:** While not intended for systemic absorption, ingredients may, to some degree, be absorbed systemically. Caution patients about the possibility of drowsiness especially if prescribed for use more than twice daily. Patients should avoid alcohol while using this cream.

2. Low Dose Naltrexone (0.5mg-6mg)

- ❖ **Precautions/warnings:** Hypersensitivity to naltrexone or any component of the formulation; opioid dependence or current use of opioid analgesics (including partial opioid agonists); acute opioid withdrawal; failure to pass naloxone challenge or positive urine screen for opioids. (see attached page for all warnings/precautions)
- ❖ **Comments:** There are very few articles regarding low-dose naltrexone, however some patients may respond to it, so it is included here as an option.
 - i. Dosage in studies is 4.5mg qhs

- ii. Mechanism at lower doses, has an antagonist effect on non-opioid receptors that are found on macrophages such as microglia. By preventing activation of microglia, you prevent the production of inflammatory and excitatory factors that cause pain sensitivity, fatigue, cognitive disruption, sleep disorders, mood disorders and general malaise. (Activated microglia produce pro-inflammatory cytokines, substance P, nitric oxide, and excitatory amino acids) – Fibromyalgia may involve chronic glial cell activation and production of proinflammatory factors.
- iii. Another possible mechanism is that the small opioid blockade produced by low dose naltrexone will lead to the body upregulating endogenous opioids and opioid receptors.
- iv. Must give at least 2 months to gauge efficacy.
- v. Low/no side effects, low cost, no abuse potential

3. Cyanocobalamin 1000mcg/ml 30 ml vial

- ❖ **Uses:** Vitamin B12 deficiency
- ❖ **Precautions/warnings:** Sensitivity to cobalt and/or Vitamin B12 or any other ingredients
- ❖ **Comments:** Useful to combat fatigue associated with fibromyalgia. Dosage typically 1ml IM once weekly, 1ml IM once every 2 weeks or 1ml IM once monthly. This has been unavailable by a manufacturer off and on for years. We are always able to compound this!

Hemorrhoids/Anal Fissure Compounds:

1. Nitroglycerin 0.2% Ointment

- ❖ **Uses:** Anal Fissures—apply rectally (topically) three times daily.
- ❖ **Precautions/warnings:**
 - Taking a medicine for erectile dysfunction (male impotence), such as Viagra® (sildenafil), Cialis® (tadalafil), or Levitra® (vardenafil), or for pulmonary hypertension
 - Severe anemia (low numbers of red blood cells)
 - Increased intracranial pressure
 - Allergies to any ingredients
- ❖ **Comments:** May lower blood pressure. When getting up from a lying or sitting position, counsel pts to get up slowly. Avoid alcohol because it may lower blood pressure. The most common side effects are headaches, which can be severe, dizziness, faintness on standing, or light-headedness.

**Nitroglycerin works to dilate blood vessels, increasing blood flow to injured tissues. It also works to reduce pressure in the internal anal sphincter, which decreases pain and further facilitates healing. The dosage of nitroglycerin is usually a small, pea-sized dot of 0.2 percent ointment applied around the anal opening two to three times daily, as well as before and after bowel movements. This strength of nitroglycerin must be compounded (custom-made) by a pharmacist. It is very important to use the correct strength and amount of nitroglycerin ointment to avoid dangerous side effects. It is also important to wash the hands before and after applying the ointment.

2. Nifedipine 0.2% Cream or Ointment

- ❖ **Uses:** Anal Fissures—apply rectally (topically) three times daily
- ❖ **Precautions/warnings:** Hypersensitivity to any ingredients. Pregnancy/breastfeeding.
- ❖ **Comments:** Topical nifedipine is a blood pressure medication that works by reducing the internal anal sphincter pressure as well as increasing blood flow to the area. Nifedipine is available in pill form for other Uses, but is best used for fissure treatment when compounded

into cream or ointment form and applied directly to the fissure. Topical treatment with 0.2% nifedipine up to four times a day has few side effects.

3. **Lidocaine/Hydrocortisone Rectal Rockets**

(Lidocaine 2-3%/Hydrocortisone 1 – 2.5%, rectal suppository)

- ❖ **Uses:** Internal/External hemorrhoids
 - ✓ **Lidocaine** is an anesthetic used to numb the area
 - ✓ **Hydrocortisone** is a steroid that will relieve itching/irritation/swelling associated with hemorrhoids
- ❖ **Precautions/warnings:** Hypersensitivity to active or inactive ingredients.
- ❖ **Comments:** Designed to treat internal and external hemorrhoids. Patient should be instructed to only be used when they are able to lie down for at least 6 hours. The suppository should be at room temperature when placed in the rectum and should be placed under warm water for a few seconds before insertion. Patients should consult the doctor if they are experiencing continued excessive bleeding from their hemorrhoids. Lidocaine may cause an initial burning sensation prior to providing pain relief by numbing. (see additional handout)