Pregabalin Therapeutic Cheat Sheet

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TRADE NAME

- Lyrica

MECHANISM OF ACTION

- Although the exact mechanism of action is not well-understood, pregabalin is a gabapentinoid agent which binds and inhibits the $\alpha_2\delta$ auxiliary subunit of voltage-gated calcium channels containing this specific subunit, thereby disrupting neurotransmitter-mediated communication between the dorsal root ganglion and the spinal dorsal horn.[6] Pregabalin reduces the spinal cord release of substance P and calcitonin gene-related peptide, which are important mediators in sensation of itch and pain through interplay with C-fibers.[7]

FDA APPROVED FOR

- Neuropathic pain associated with diabetic peripheral neuropathy or spinal cord injury[8]
- Postherpetic neuralgia[8]
- Fibromyalgia[8]
- Partial-onset seizures in patients 1 month and older, adjunctive therapy[8]

OFF-LABEL USES

- Chronic pruritus[9,10]
- Uremic pruritus[11]
- Neuropathic or neurogenic pruritus[11]
- Prurigo nodularis[12]
- Brachioradial pruritus[13]
- Notalgia paresthetica[14]
- Scalp dysethesia[15]
- Vulvodynia[16]
- Red scrotum syndrome[17]
- Pain symptoms associated with acral erythrodysesthesia or hand-foot-skin reaction[18]
- Acute zoster[19]
- Erythromelalgia[20]

DOSING

- Adult indications; begin dosing at 150mg daily, although evidence of efficacy of lower starting doses in management of pruritic diseases[8]
  - Diabetic peripheral neuropathy pain; 3 divided doses daily of 300mg daily within 1 week
  - Postherpetic neuralgia; 2-3 divided doses per day of 300mg daily within 1 week (max. dose of 600mg daily)
  - Adjunctive treatment for partial-onset seizures in pediatric and adult patients weighing 30kg+
    - 2-3 divided doses, max. dose of 600mg daily
  - Adjunctive treatment for partial-onset seizures in pediatric patients weighing <30kg
    - 1 month to <4 years; 3 divided doses of 14mg/kg daily
    - 4 years and older; 2-3 divided doses of 14mg/kg daily
  - Fibromyalgia; 2 divided doses daily, 300mg daily within 1 week, max. dose of 450mg daily
  - Off-label use in chronic pruritic diseases; evidence for efficacy of 75mg once daily, with titration upwards to twice daily dosing, and/or 150mg once daily, with titration upwards to twice daily dosing, with max. dose of 600mg daily[10,12,21]
- Dose adjustment in adult patients with reduced kidney function[8]
- Withdrawal recommended over min. of 1 week to prevent seizures[8]

SIDE EFFECTS

- Most commonly: Dizziness, somnolence, dry mouth, edema, blurred vision, weight gain, difficulty with concentration & attention[8]
- Angioedema, hypersensitivity reactions[8]
- Respiratory depression[8]
- Suicidal thoughts & behavior (however, evidence is inconclusive)[8]
- Seizures with withdrawal[8]
- Possible creatine kinase elevations, decreased platelet counts, and PR interval prolongation[8]

WARNINGS

- Caution in patients with previous episode of angioedema or in patients on other drugs also associated with increased risk of angioedema (ex. angiotensin converting enzyme inhibitors)[8]

CONTRAINDICATIONS

- Patients with known hypersensitivity to the drug or any of its components8

PREGNANCY & BREASTFEEDING

- No well-controlled studies studying medication in pregnant human women; further study is needed[8,22]
- Recent cohort study providing evidence for lack of significantly increased occurrence of major congenital malformations in offspring of patients using medication[22]
- Evidence from animal studies suggest increased risk of fetal abnormalities in offspring of rats and rabbits exposed to 16 times the max. recommended human dose of medication[2]
- Small amounts of medication detected in milk of women who are lactating (about 7% of mother's dose, effects on infant breastfed this medication are unknown)[8]

MONITORING

- Monitor for symptoms of swelling of face, mouth, or neck (angioedema may occur with initial or chronic treatment)
- Monitor for new or worsening depression, suicidal ideation, behavior
- Monitor for respiratory depression