

CARBAMAZEPINE:

Class: Anticonvulsant

Indications: Treatment of epilepsy, trigeminal neuralgia or glossopharyngeal neuralgia.

Available dosage form in the hospital: SYRUP 100MG, TAB CR (200 MG, 300 MG,400MG) , TAB (200 MG, 400MG)

Trade Names:

Dosage:

Dosage must be adjusted according to patient's response and serum concentrations. Administer tablets (chewable or conventional) in 2-3 divided doses daily and suspension in 4 divided doses daily.

-Epilepsy: Oral: Initial: 400 mg/day in 2 divided doses (tablets or extended release tablets) or 4 divided doses (oral suspension); increase by up to 200 mg/day at weekly intervals using a twice daily regimen of extended release tablets or capsules, or a 3-4 times/day regimen of other formulations until optimal response and therapeutic levels are achieved; usual dose: 800-1200 mg/day

Maximum recommended dose: 1600 mg/day; however, some patients have required up to 1.6-2.4 g/day

-Trigeminal or glossopharyngeal neuralgia: Oral: Initial: 200 mg/day in 2 divided doses (tablets, extended release tablets, or extended release capsules) or 4 divided doses (oral suspension) with food, gradually increasing in increments of 200 mg/day as needed.

Maintenance: Usual: 400-800 mg daily in 2 divided doses (tablets, extended release tablets, or extended release capsules) or 4 divided doses (oral suspension); maximum dose: 1200 mg/day

-Bipolar disorder: Oral: Initial: 400 mg/day in 2 divided doses (tablets, extended release tablets, or extended release capsules) or 4 divided doses (oral suspension), may adjust by 200 mg/day increments; *Maximum dose:* 1600 mg/day.

Note: Equetro® is the only formulation specifically approved by the FDA for the management of bipolar disorder.

-Neuropathic pain, critically-ill patients (unlabeled use): Oral: Initial: 50-100 mg twice daily in combination with I.V. opioids; Maintenance: 100-200 mg every 4-6 hours; maximum dose: 1200 mg daily (Barr, 2013)

Renal Impairment:

Dosage adjustments are not required or recommended in the manufacturer's labeling;

The following guidelines have been used by some clinicians (Aronoff, 2007):

Adults:

-GFR <10 mL/minute: Administer 75% of dose

-Hemodialysis, peritoneal dialysis: Administer 75% of dose (postdialysis)

-Continuous renal replacement therapy (CRRT):

No dosage adjustment recommended

Hepatic Impairment:

Use with caution in hepatic impairment; metabolized primarily in the liver

Common side effect:

Cardiovascular: Hypertension (3%), atrioventricular block, cardiac arrhythmia, cardiac failure, coronary artery disease exacerbation, edema, hypotension, syncope, thromboembolism, thrombophlebitis

Central nervous system: Dizziness (44%), drowsiness (32%), headache (22%), ataxia (15%), speech disturbance (6%), abnormality in thinking (2%), paresthesia (2%), vertigo (2%), agitation, amnesia, chills, confusion, depression, fatigue, fever, hallucination, neuroleptic malignant syndrome (NMS), peripheral neuritis, slurred speech, talkativeness

Dermatologic: Pruritus (8%), skin rash (7%), abnormal thyroid function test, acute generalized exanthematous pustulosis, alopecia, dyschromia, erythema multiforme, erythema nodosum, exfoliative dermatitis, onychomadesis, purpura, skin photosensitivity, Stevens-Johnson syndrome, toxic epidermal necrolysis, urticaria

Endocrine & metabolic: Hypocalcemia, hyponatremia, SIADH, abnormal thyroid function test

Gastrointestinal: Nausea (29%), vomiting (18%), constipation (10%), xerostomia (8%), abdominal pain, anorexia, diarrhea, dry throat, gastric distress, glossitis, pancreatitis, stomatitis

Genitourinary: Impotence, urinary frequency, urinary retention

Hematologic & oncologic: Agranulocytosis, anemia, aplastic anemia, bone marrow depression, eosinophilia, leukocytosis, leukopenia, lymphadenopathy, pancytopenia, porphyria, thrombocytopenia

Hepatic: Abnormal hepatic function tests, hepatic failure, hepatitis, jaundice

Hypersensitivity: Hypersensitivity reaction, multi-organ hypersensitivity

Neuromuscular & skeletal: Weakness (8%), tremor (3%), twitching (2%), arthralgia, leg cramps, myalgia, osteoporosis, systemic lupus erythematosus exacerbation

Ophthalmic: Blurred vision (6%), cataract, conjunctivitis, diplopia, increased intraocular pressure, nystagmus, oculomotor disturbance

Otic: Hyperacusis, tinnitus

Renal: Albuminuria, azotemia, glycosuria, increased blood urea nitrogen, oliguria, renal failure

Miscellaneous: Diaphoresis

Pregnancy Risk Factor D