The Carlat Psychiatry Report

NEURONTIN (gabapentin) Fact Sheet

Manufacturer: Various manufacturers; available as generic gabapentin.

Indications:

- Epilepsy, both adult and pediatric
- Postherpetic Neuralgia
- Off-label use in anxiety disorders, bipolar disorder (although two randomized controlled trials (RCT) have not shown effectiveness), insomnia, and alcohol withdrawal.

Mechanism: Since it is structurally related to GABA (the main inhibitory neurotransmitter in the nervous system), it is thought to exert its action by modulating GABA, but the evidence is unclear.

Dosing:

- Supplied in 100 mg, 300 mg, and 400 mg capsules (not breakable), and 600 mg and 800 mg tablets (breakable), and as a 250 mg/5 ml oral solution.
- Dosing for psychiatric indications is guesswork. Neurologists use 900-1800 mg/day, sometimes going as high as 3600 mg/day. Controlled trials for anxiety disorders have averaged 2000-3000 mg/day. Psychiatrists often use low doses initially for insomnia (100 mg q.h.s.), but when treating anxiety might start at 300 mg q.h.s., increasing gradually to 300 mg t.i.d., then higher as tolerated.
- Dosage should be decreased in renal impairment, but not in hepatic impairment.

Side Effects:

- Most common are: Dizziness and sedation. Peripheral edema fairly common in FDA trials but rarely seen in psychiatric practice (maybe it's just not reported or recognized).
- Weight gain: Very little.
- Sexual functioning: Lowered libido has been reported, unclear how common.
- Overdose potential: Apparently none. One patient took 49 *grams* in overdose with no serious sequelae.
- In children: Can cause emotional lability and hostility in 5-6% of patients age 3-12.
- Pregnancy Category C.

Drug-drug interactions:

- Does not inhibit or induce liver enzymes.
- Maalox reduces bioavailability by 20%, so have patient take Neurontin at least 2 hours after Maalox.
- Decreases Vicodin (hydrocodone) levels by up to 20% for unknown reasons.

Pharmacokinetics:

- Neurontin is not metabolized in the body at all; it is simply excreted unchanged through the kidneys.
- Short half-life of 5-8 hours, leading to manufacturer's recommendation of BID or TID dosing, and this is commonly done in practice as well, unless it is being used only for insomnia.

Laboratory Monitoring:

- No monitoring of plasma concentrations, liver function tests, CBC, or BUN/Creatinine required.