

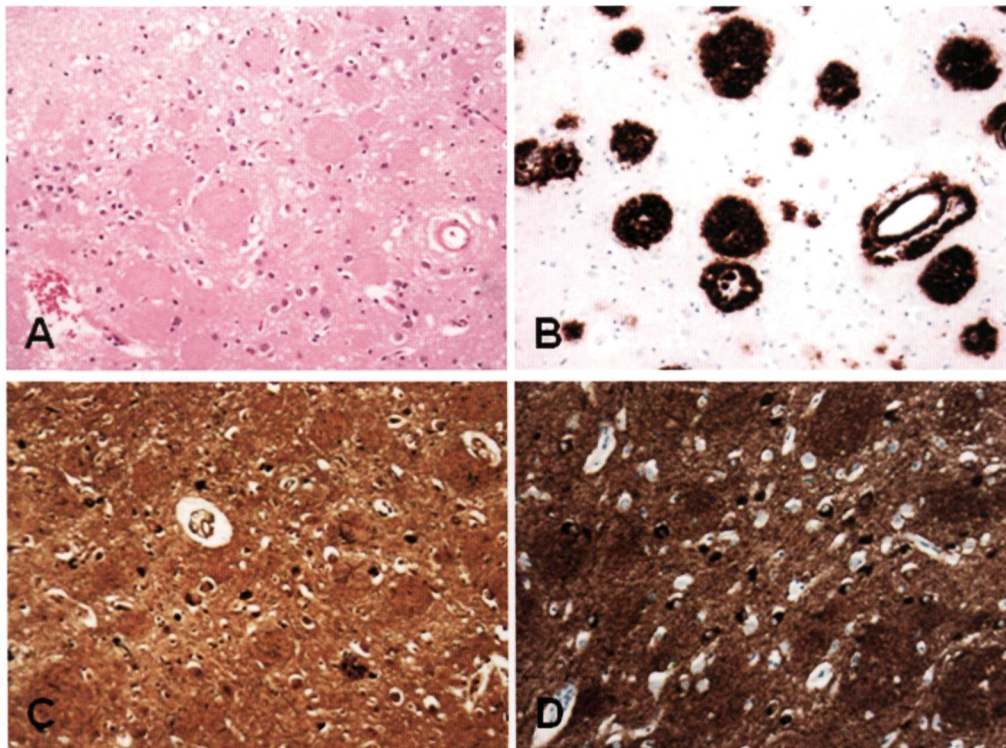


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# The Journal

Canadian Journal of Neurological Sciences

Volume 38 Number 4 July 2011



**Variant Alzheimer Disease with Spastic Paraparesis: A Rare Presenilin-1 Mutation - Pages 659-661**

Jacqueline A. Pettersen, David G. Patry, Peter H. St. George-Hyslop, Bernadette Curry

**Figure:** "Cotton wool" plaques from the frontal lobe as seen at 20X magnification on sections stained with A) hematoxylin and eosin; B)  $\beta$ -amyloid immunostain; C) Bielschowsky silver stain; and D) Tau stain. Note the distinct borders, strong positivity to  $\beta$ -amyloid but only minor neuritic pathology within these plaques, differentiating them from neuritic plaques.

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# Canadian Neurological Sciences Federation



## 46th Annual Congress

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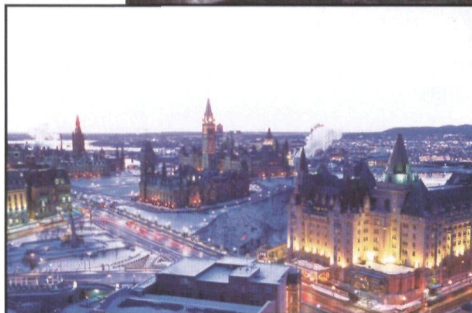
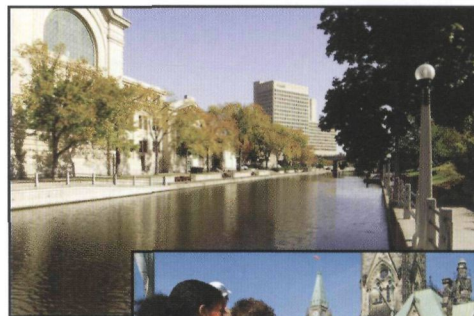
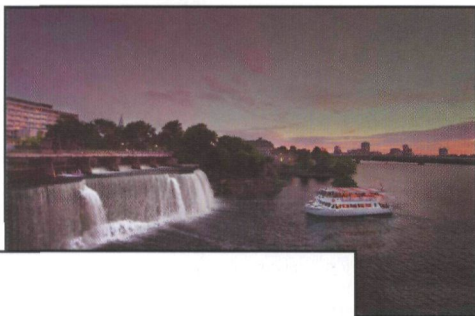
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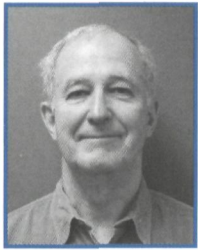
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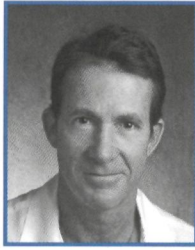
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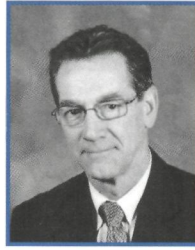
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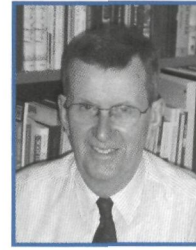
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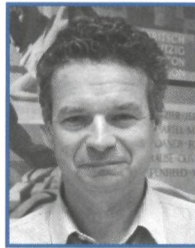
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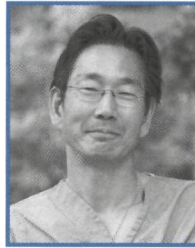
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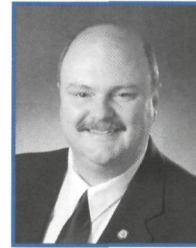
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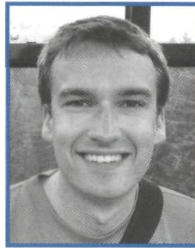
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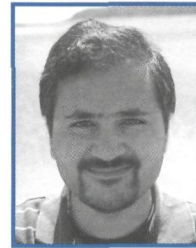
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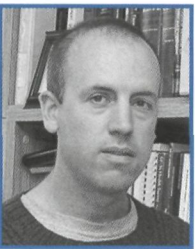
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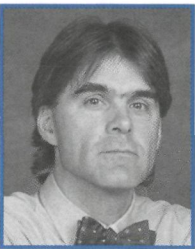
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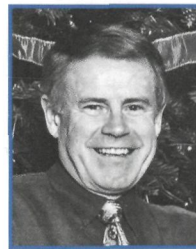
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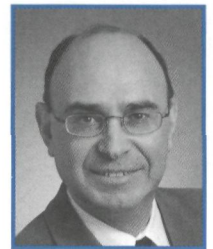
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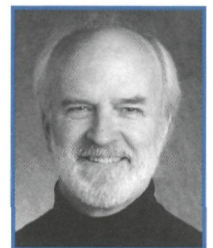
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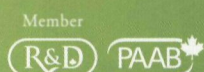
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Cymbalta®: Third Analgesic Indication<sup>1</sup>  
**CHRONIC LOW BACK  
PAIN**

**Cymbalta® is also an analgesic for use in:<sup>1</sup>**

- Diabetic Peripheral Neuropathic Pain
- Pain associated with Fibromyalgia

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All patients who participated in the chronic low back pain clinical trials had a clinical diagnosis of CLBP with pain present on most days for at least 6 months and no signs of radiculopathy or spinal stenosis.<sup>1</sup>

Cymbalta® (duloxetine hydrochloride) is indicated for the management of chronic low back pain (CLBP).

Cymbalta® is indicated for the management of neuropathic pain associated with diabetic peripheral neuropathy (DPN).<sup>1</sup>

Cymbalta® is indicated for the management of pain associated with fibromyalgia (FM).<sup>1</sup>

The efficacy of Cymbalta® has been demonstrated in controlled clinical trials for up to 12 weeks in DPN and FM and up to 13 weeks in patients with CLBP. The physician who elects to use Cymbalta® for extended periods in DPN, FM or CLBP should periodically re-evaluate the long-term usefulness of the drug for the individual patient.<sup>1</sup>

**Cymbalta® is not indicated for use in children under 18 years of age.<sup>1</sup>**

**Rigorous clinical monitoring for suicidal ideation or other indicators of potential for suicidal behaviour is advised in patients of all ages. This includes monitoring for agitation-type emotional and behavioural changes. Please see Prescribing Information for complete warnings.<sup>1</sup>**

**Patients currently taking Cymbalta® should NOT be discontinued abruptly due to risk of discontinuation symptoms. A gradual reduction in the dose is recommended.<sup>1</sup>**

Cymbalta® is contraindicated in patients with a known hypersensitivity to the drug or the other components of the product.<sup>1</sup>

Cymbalta® is contraindicated in patients with end-stage renal disease (requiring dialysis) or with severe renal impairment (estimated creatinine clearance <30 mL/min).<sup>1</sup>

Cymbalta® is contraindicated in patients with any liver disease resulting in hepatic impairment.<sup>1</sup>

Cymbalta® is contraindicated in patients concomitantly taking any of the following medications: monoamine oxidase inhibitors (MAOI), including the antibiotic linezolid and the thiazine dye methylthionium (methylene blue) which are less well-known examples of MAOIs, or within at least 4 days of discontinuing treatment with an MAOI, potent CYP1A2 inhibitors (e.g. fluvoxamine) and some quinolone antibiotics (e.g. ciprofloxacin or enoxacin), and thioridazine.<sup>1</sup>

Cymbalta® is contraindicated in patients with uncontrolled narrow-angle glaucoma.<sup>1</sup>

The most commonly observed adverse events in Cymbalta®-treated CLBP patients (incidence 5% or greater and at least twice the incidence in placebo patients) included nausea (16%), dry mouth (9%), insomnia (8%), somnolence (8%), constipation (7%), fatigue (6%), and dizziness (6%).<sup>1</sup>

Please see Product Monograph for complete prescribing details including warnings, precautions, adverse events, dosing, administration and indications.

1. Cymbalta® Product Monograph, Eli Lilly Canada Inc., April 8, 2011.



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## Attention CNSF Members

Welcome to the next stage in the evolution of the Canadian Neurological Sciences Federation (CNSF) e-CPD Project website...

**medlearn.ca** is an e-learning website dedicated to the learning needs of CNSF Members. In fall 2011, the CNSF will begin showcasing Section 1 and 2 learning activities, including the Discussion Centre, Media Repository (Seizure Disorders, Movement Disorders) and Online Resources & Reports.

It is our goal to begin offering Section 3 Self-Assessment learning activities in 2012 in the areas of Clinical NeuroPathological Conferences (CNPCs) and NeuroDiagnostic Challenges (NDCs).

**medlearn.ca** is a CNSF Member driven website with physicians and surgeons dedicated to the ongoing continuing professional development of their colleagues, volunteering their time as authors and reviewers.

**medlearn.ca** is intuitive, easy to access and easy to navigate, acting as a learning content management system dedicated to hosting learning activities, with ownership of scientific content remaining with the authors and their institutions.

As it evolves, **medlearn.ca** will provide neurologists and neurosurgeons with access to relevant online CPD activities, resources and reports to ensure they may fulfill the Royal College of Physicians and Surgeons MOC requirements for group learning, self-learning, and assessment, while also providing information to assist in enhancing the care of their patients with diseases of the nervous system.



See prescribing summary of pages A-17 to A-20



\* Fictitious patient. May not be representative of all fibromyalgia cases.



# **FACED WITH PAIN**\*

IN HER STRUGGLE WITH FIBROMYALGIA



First treatment indicated in Canada for adults for the management of pain associated with

**fibromyalgia<sup>1</sup>**

Pregabalin: first-line treatment for chronic

**neuropathic pain<sup>2</sup>**

## DEMONSTRATED SIGNIFICANT RELIEF IN PAIN AND PAIN-RELATED SLEEP DIFFICULTIES IN FIBROMYALGIA<sup>1</sup>

### Demonstrated powerful, rapid and sustained pain relief<sup>1,3-5</sup>

#### In fibromyalgia:

- In a 14 week study, LYRICA demonstrated significant pain reduction as early as week 1 ( $p < 0.05$  for all doses). Mean changes in pain scores at the end of the study for LYRICA-treated patients were significantly greater versus placebo (300 mg/day,  $n=183$ : -1.75,  $p=0.0009$ ; 450 mg/day,  $n=190$ : -2.03,  $p < 0.0001$ ; 600 mg/day,  $n=188$ : -2.05,  $p < 0.0001$ ; placebo,  $n=184$ : -1.04)<sup>3</sup>
- In another study of 26 weeks' duration of patients who initially responded to LYRICA during a 6-week, open-label phase, 68% of those who continued on their optimized dose ( $n=279$ ) maintained a treatment response versus 39% of those on placebo ( $n=287$ ). The time to loss of therapeutic response was longer in the LYRICA group ( $p < 0.0001$ )<sup>4</sup>

#### Also in neuropathic pain (NeP):

- Sustained pain relief (starting at week 2 for LYRICA 150-600 mg/day,  $n=141$ ;  $p < 0.05$  vs placebo,  $n=65$ ) was demonstrated throughout a 12 week study in patients with DPN or PHN<sup>5</sup>

### Demonstrated effective in relieving pain-related sleep difficulties<sup>1,6</sup>

#### In fibromyalgia:

- In a 13 week study, LYRICA reduced overall MOS-Sleep Scale scores significantly more at the end of the study vs. placebo (300 mg/day -19.1,  $p=0.0174$ ; 450 mg/day: -20.41,  $p=0.0026$ ; 600 mg/day: -19.49,  $p=0.0101$ ; placebo: -14.29)<sup>6</sup>

#### Also in NeP:

- LYRICA reduced sleep disturbances across several studies in DPN and PHN, of 8-12 weeks duration<sup>7</sup>

### Flexible dosing across all indications<sup>1†</sup>

LYRICA (pregabalin) is indicated for the management of neuropathic pain associated with diabetic peripheral neuropathy (DPN), postherpetic neuralgia (PHN) and spinal cord injury in adults. LYRICA may be useful in the management of central neuropathic pain in adults. LYRICA is indicated for the management of pain associated with fibromyalgia in adults. The efficacy of LYRICA in the management of pain associated with fibromyalgia for up to 6 months was demonstrated in a placebo-controlled trial in patients who had initially responded to LYRICA during a 6-week open-label phase.

LYRICA is contraindicated in patients who are hypersensitive to pregabalin or to any ingredient in the formulation or component of the container.

The most commonly observed adverse events ( $\geq 5\%$  and twice the rate as that seen with placebo) in the recommended dose range of 150 mg/day to 600 mg/day in PHN and DPN patients were: dizziness (9.0-37.0%), somnolence (6.1-24.7%), peripheral edema (6.1-16.2%), and dry mouth (1.9-14.9%) and were dose related; in spinal cord injury patients: somnolence (41.4%), dizziness (24.3%), asthenia (15.7%), dry mouth (15.7%), edema (12.9%), constipation (12.9%), amnesia (10.0%), myasthenia (8.6%), amblyopia (8.6%), and thinking abnormal (8.6%); in fibromyalgia patients: dizziness (37.5%), somnolence (18.6%), weight gain (10.6%), dry mouth (7.9%), blurred vision (6.7%), and peripheral edema (6.1%). In LYRICA-treated fibromyalgia patients, the most commonly observed dose-related adverse events were: dizziness (22.7-46.5%), somnolence (12.9-20.7%), weight gain (7.6-13.7%), peripheral edema (5.3-10.8%). The most commonly observed adverse events in the PHN, DPN, spinal cord injury and fibromyalgia patients were usually mild to moderate in intensity. Discontinuation rates due to adverse events for LYRICA and placebo, respectively, were 9% and 4% in DPN, 14% and 7% in PHN, 21% and 13% in spinal cord injury, and 20% and 11% in fibromyalgia. There was a dose-dependent increase in rate of discontinuation due to adverse events in fibromyalgia.

There have been post-marketing reports of angioedema in patients, some without reported previous history/episodes, including life-threatening angioedema with respiratory compromise. Caution should be exercised in patients with previous history/episodes of angioedema and in patients who are taking other drugs associated with angioedema.

In clinical trials and in post-marketing experience, there have been reports of patients, with or without previous history, experiencing renal failure alone or in combination with other medications. Caution is advised when prescribing to the elderly or those with any degree of renal impairment.

There have been post-marketing reports of events related to reduced lower gastrointestinal tract function (e.g., intestinal obstruction, paralytic ileus, and constipation) in patients, some without reported previous history/episode(s), during initial/acute and chronic treatment with LYRICA, primarily in combination with other medications that have the potential to produce constipation. Some of these events were considered serious and required hospitalization. In a number of instances, patients were taking opioid analgesics including tramadol. Caution should be exercised when LYRICA and opioid analgesics are used in combination, and measures to prevent constipation may be considered, especially in female patients and elderly as they may be at increased risk of experiencing lower gastrointestinal-related events.

**Dosage reduction is required in patients with renal impairment (creatinine clearance <60 mL/min) and in some elderly patients as LYRICA is primarily eliminated by renal excretion.**

Please see Prescribing Information for complete Warnings and Precautions, Adverse Reactions, Dosage and Administration and patient selection criteria.

† Please consult Prescribing Information for complete Dosage and Administration instructions.



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- ◆ VIMPAT **significantly increased seizure control**, with a  $\geq 50\%$  reduction in seizure frequency from baseline to the maintenance phase for **38-41% of patients** who added VIMPAT 400 mg/day to current therapy compared to placebo ( $p \leq 0.01$ ) (responder rates in Chung *et al*: 38.3% VIMPAT vs. 18.3% placebo; in Halász *et al*: 40.5% vs. 25.8%; in Ben-Menachem *et al*: 41.1% vs. 21.9%).<sup>\*1,2,3,4</sup>
- ◆ Some of the most frequently reported **adverse reactions** (dizziness, nausea, and vision-related events, including diplopia and blurred vision) were **dose-related** and usually **mild to moderate** in intensity.<sup>1</sup>

Since the first global approval of VIMPAT on August 29<sup>th</sup> 2008 through to February 28<sup>th</sup> 2010, there were approximately **25,899 patient-years of exposure to VIMPAT**<sup>1</sup>

VIMPAT (lacosamide) is indicated as adjunctive therapy in the management of partial-onset seizures in adult patients with epilepsy ( $\geq 18$  years of age) who are not satisfactorily controlled with conventional therapy. The clinical experience with VIMPAT in elderly patients with epilepsy ( $\geq 65$  years of age) is limited. Caution should be exercised during dose titration and age-associated decreased renal clearance should be considered in elderly patients. The safety and efficacy of VIMPAT in pediatric patients ( $< 18$  years of age) have not been established and its use in this patient population is not indicated.

VIMPAT is contraindicated in patients who are hypersensitive to the active substance or to any of the excipients and in patients with a history of, or presence of, second- or third-degree atrioventricular (AV) block. Patients with hypersensitivity to peanuts or soya should not take VIMPAT film-coated tablets.

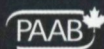
VIMPAT should be used with caution in patients with known conduction problems (e.g. marked first-degree AV block, sick sinus syndrome without pacemaker), or with severe cardiac disease such as myocardial ischemia or heart failure. In such patients, obtaining an ECG before beginning VIMPAT, and after VIMPAT is titrated to steady-state, is recommended. Caution should be exercised when VIMPAT is given with other drugs that prolong the PR interval (e.g. carbamazepine, pregabalin, lamotrigine, beta-blockers, and class I antiarrhythmic drugs), as further PR prolongation is possible. In clinical trials of healthy subjects and patients with epilepsy, VIMPAT treatment was associated with PR interval prolongation in a dose-dependent manner. VIMPAT administration may predispose to atrial arrhythmias (atrial fibrillation or flutter), especially in patients with diabetic neuropathy

and/or cardiovascular disease. Patients should be made aware of the symptoms of atrial fibrillation and flutter (e.g. palpitations, rapid pulse, shortness of breath) and told to contact their physician should any of these symptoms occur.

Multisystem hypersensitivity reactions (also known as Drug Rash with Eosinophilia and Systemic Symptoms, or DRESS), Stevens-Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN) have been reported with other anticonvulsants. If any of these hypersensitivity reactions are suspected, VIMPAT should be discontinued and alternative treatment started.

Treatment with VIMPAT has been associated with dizziness and ataxia, which could increase the occurrence of accidental injury or falls. Accordingly, patients should be advised not to drive a car or to operate other complex machinery or perform hazardous tasks until they are familiar with the effects of VIMPAT on their ability to perform such activities.

In controlled trials in patients with partial-onset seizures, VIMPAT treatment was associated with vision-related adverse events such as blurred vision and diplopia. Patients should be informed that if visual disturbances occur, they should notify their physician promptly. If visual disturbance persists, further assessment, including dose reduction and possible discontinuation of VIMPAT, should be considered. More frequent assessments should be considered for patients with known vision-related issues or those who are already routinely monitored for ocular conditions.

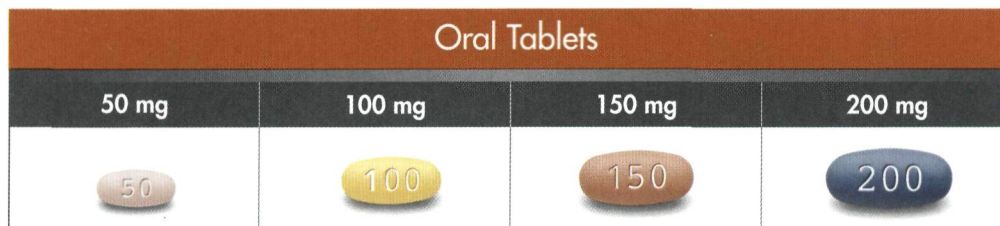


# NEW FOR PATIENTS WITH EPILEPSY

VIMPAT is indicated as adjunctive therapy in the management of partial-onset seizures in adult patients ( $\geq 18$  years) with epilepsy who are not satisfactorily controlled with conventional therapy.<sup>1</sup>

## A variety of strengths for you and your patients

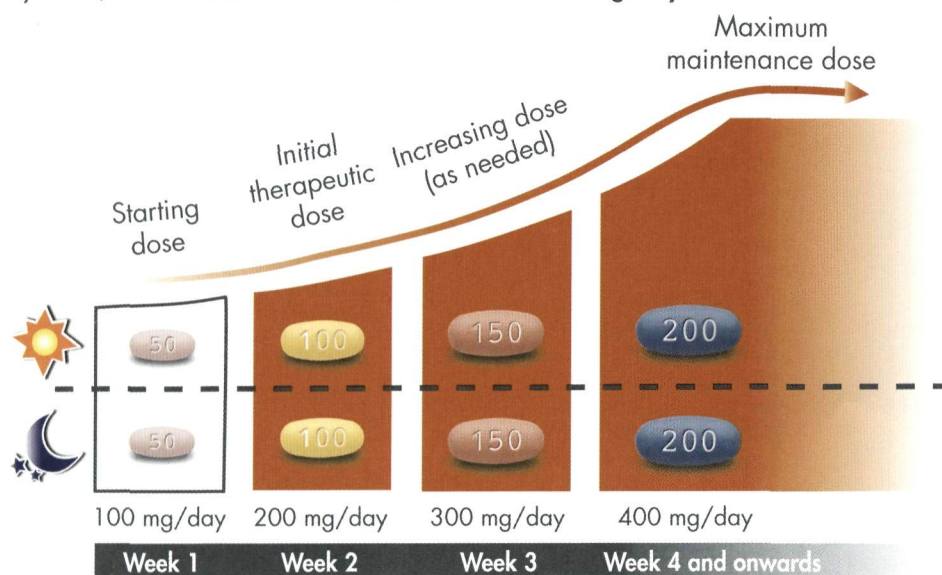
- ◆ VIMPAT tablets are available in 4 strengths for convenient dosing.<sup>1</sup>



Tablets representative of actual size.

## Convenient BID dosing, with or without food<sup>1</sup>

- ◆ Depending on response and tolerability, the maintenance dose of VIMPAT can be increased by 50 mg twice daily every week, to a **maximum recommended dose of 400 mg/day**.<sup>1</sup>



Adapted from the VIMPAT Product Monograph.<sup>1</sup>  
Please consult the Product Monograph for complete dose, dose adjustment, and administration instructions.

Suicidal ideation and behavior have been reported in patients treated with antiepileptic agents in several indications. All patients treated with antiepileptic drugs, irrespective of indication, should be monitored for signs of suicidal ideation and behavior and appropriate treatment should be considered. Patients (and caregivers of patients) should be advised to seek medical advice should signs of suicidal ideation or behavior emerge. There are no studies with VIMPAT in pregnant women. Since the potential risk for humans is unknown, VIMPAT should not be used during pregnancy unless the benefit to the mother clearly outweighs the potential risk to the foetus. It is unknown whether VIMPAT is excreted in human breast milk. Because many drugs are excreted into human milk, a decision should be made whether to discontinue nursing or to discontinue VIMPAT, taking into account the importance of the drug to the mother.

As with all antiepileptic drugs, VIMPAT should be withdrawn gradually (over a minimum of 1 week) to minimize the potential of increased seizure frequency.

In controlled clinical trials in patients with partial-onset seizures, some of the most frequently reported adverse reactions with VIMPAT treatment were dizziness (16% and 30% for 200 mg and 400 mg treatment groups, respectively, vs. 8% placebo), nausea (7% and 11% vs. 4%), and vision related events [diplopia (6% and 10% vs. 2%) and blurred vision (2% and 9% vs. 3%)]. They were dose-related and usually mild to moderate in intensity. The adverse events most commonly leading to discontinuation were dizziness, coordination abnormal, vomiting, diplopia, nausea, vertigo, and vision blurred. Please see the VIMPAT Product Monograph for full prescribing information.

\* Responder rates ( $>50\%$  reduction in seizure frequency) from baseline to maintenance period (intent to treat, ITT) of 3 randomized, double-blind, placebo-controlled, multicentre trials studying VIMPAT (lacosamide) as adjunctive therapy in adult patients with POS with or without secondary generalization. Patients were to have been taking a stable dosage regimen of one to three AEDs, with or without VNS in the 4 weeks before enrollment during the baseline period. Enrolled patients entered an 8-week baseline period to obtain baseline seizure frequency data and to determine eligibility for the double-blind period of the trial. At the beginning of the 4-week forced titration period, patients were started on either placebo or VIMPAT 100 mg/day. In the case of patients randomized to VIMPAT 400 mg/day, the dose was increased by 100 mg/day each week until the 400 mg/day dose was reached at the beginning of week 4. Patients randomized to 200 mg/day received placebo during the first 2 weeks of titration, were started on VIMPAT 100 mg/day at week 3, and the dose was increased to 200 mg/day at the beginning of week 4. Patients then entered a 12-week maintenance phase period.<sup>2,3,4</sup>

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