



THE CANADIAN JOURNAL OF

Neurological Sciences

LE JOURNAL CANADIEN DES

Sciences Neurologiques

AN INTERNATIONAL JOURNAL / UN JOURNAL INTERNATIONAL

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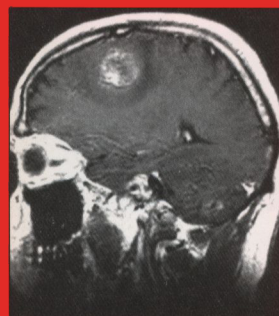
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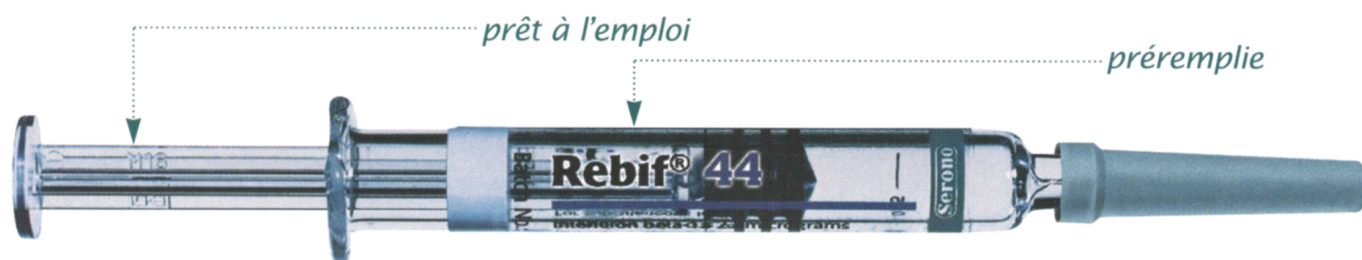


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¹ Groupe d'étude PRISMS (Prevention of Relapses and Disability by Interferon β -1a Subcutaneously in Multiple Sclerosis), 1998. Randomised double-blind placebo-controlled study of Interferon β -1a in relapsing/remitting multiple sclerosis. *Lancet*, 352:1498-1504



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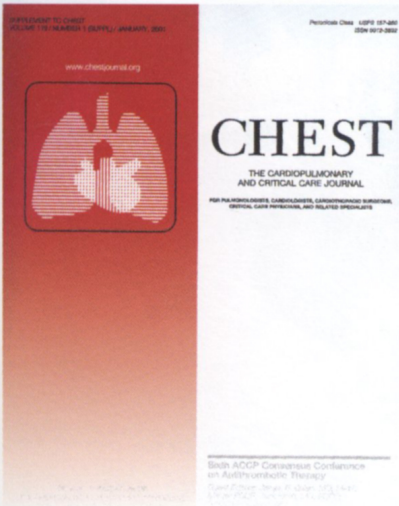


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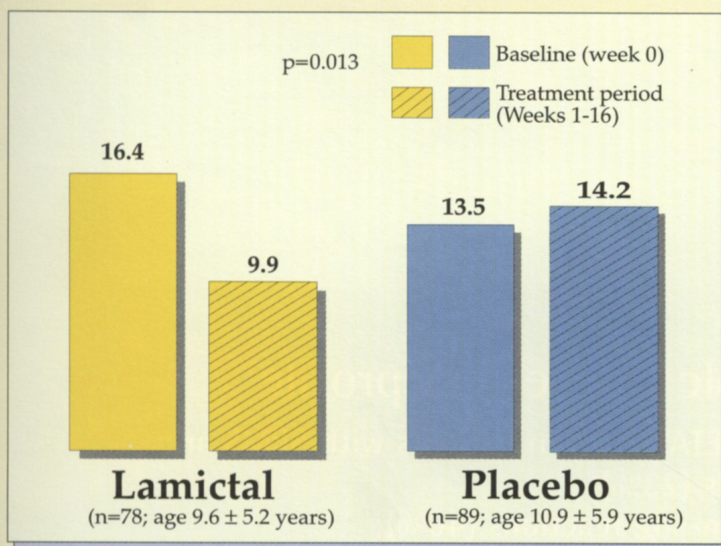
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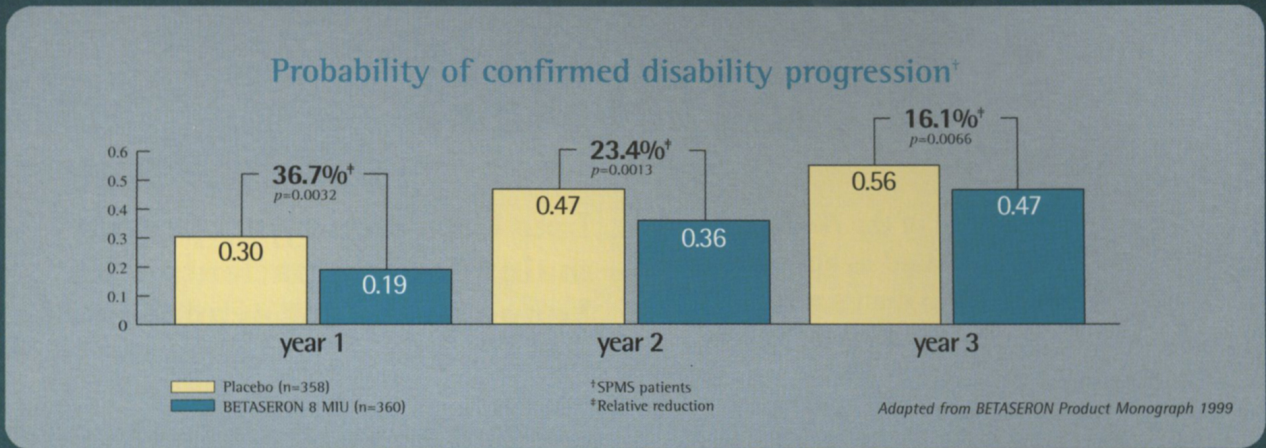
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PARB

<https://doi.org/10.1017/S0317167100049696> Published online by Cambridge University Press

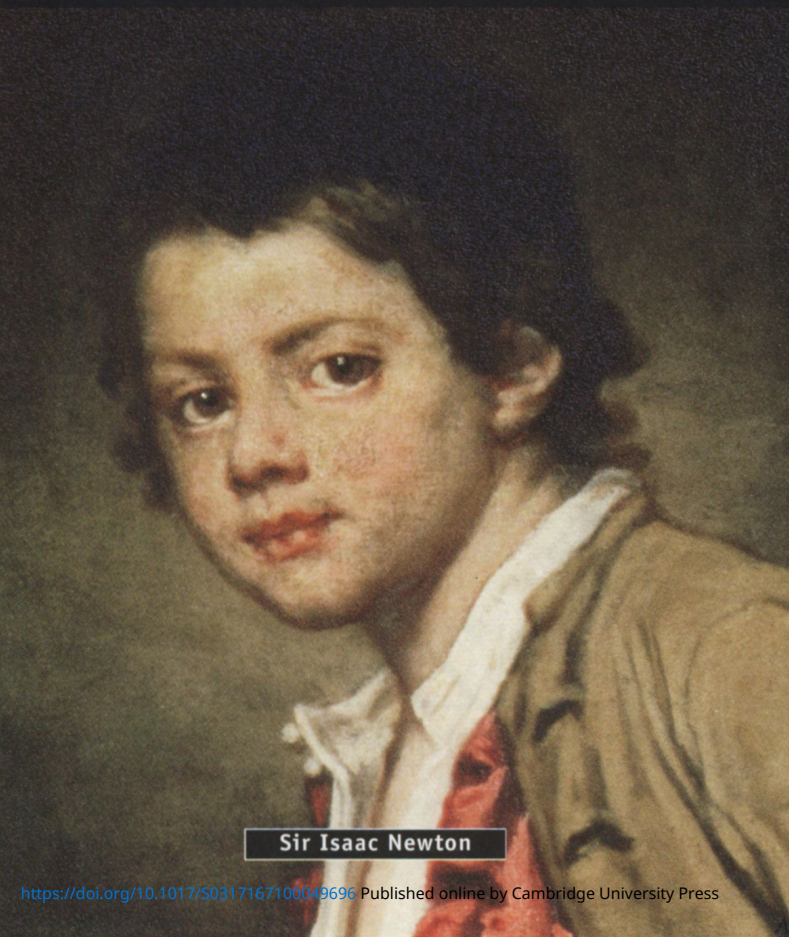


Vincent Van Gogh

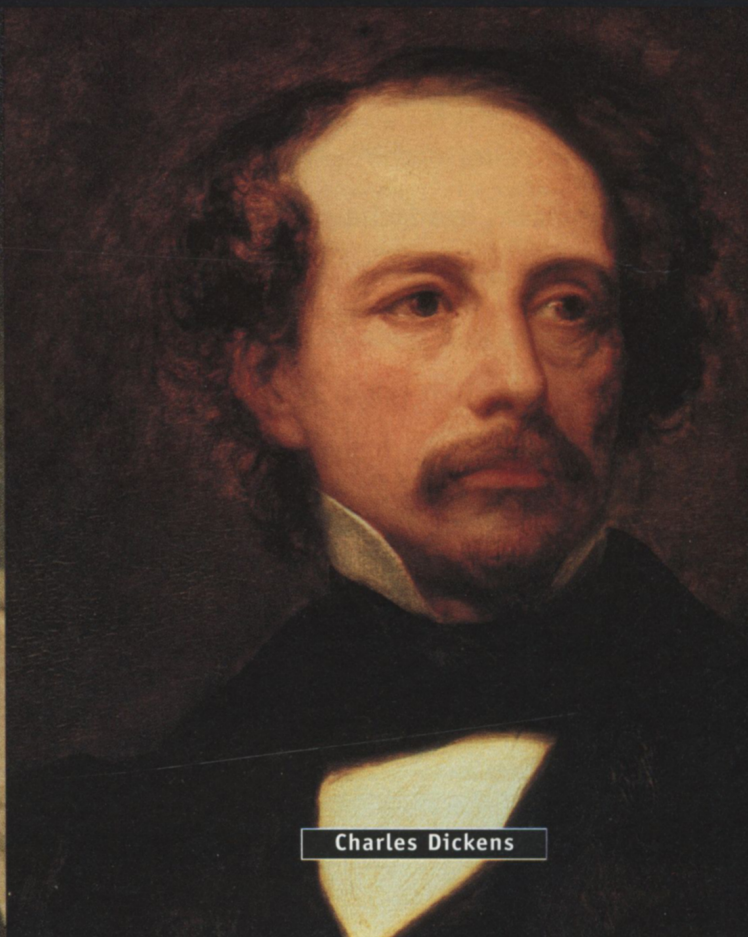


Joan of Arc

**YESTERDAY, PEOPLE WITH EPILEPSY
HAD TO BE EXTRAORDINARY TO SUCCEED.**



Sir Isaac Newton



Charles Dickens

EFFICACY ACROSS A BROAD RANGE OF SEIZURES.

- TOPAMAX demonstrates efficacy in Partial Onset, Primary Generalized Tonic-Clonic, and Lennox-Gastaut Seizures¹
- Desirable seizure-free results were shown in both Adults (19%)[†] and Children (22%)[†] with Partial Onset Seizures^{2,3}

NO EVIDENCE OF LIFE-THREATENING SIDE EFFECTS.

- Like most antiepileptics, the most common side effects are CNS related, usually mild to moderate and transient^{§1}

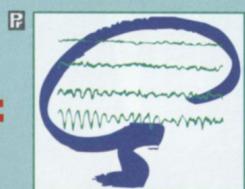
ADULT PATIENTS MAY EXPERIENCE WEIGHT LOSS.

- 73% of patients (n=52) showed a mean weight decrease of 5.97 lb (Interim analysis. Average duration 60 days)⁴
- 96% of children in clinical trials (≥ one year) who lost weight showed resumption of weight gain in test period^{**}

TODAY, THERE'S TOPAMAX.

B.I.D. DOSING WITH THE PATIENT IN MIND.

- TOPAMAX is initiated and titrated to clinical response regardless of existing anticonvulsant therapy
- Tablets available on formulary^{††}



TOPAMAX^{®*}
topiramate

**NOW AVAILABLE
IN SPRINKLE
CAPSULES**

**NOW INDICATED
FOR CHILDREN**

HELPING PATIENTS MAKE MORE OF THEIR LIVES.

TOPAMAX topiramate Tablets and Sprinkle Capsules: indicated as adjunctive therapy for the management of patients (adults and children two years and older) with epilepsy who are not satisfactorily controlled with conventional therapy. There is limited information on the use of topiramate in monotherapy at this time.*

[†] Open label, 20 week trial (n=450 Adults). Optimal dosing was 300-350 mg/day (Average 288 mg/day).

[‡] Open label trial for children (n=72) treated for ≥ 3 months. Average dose of 10 mg/kg/day.

[§] CNS adverse events: Somnolence (30.1%), dizziness (28.3%), ataxia (21.2%), speech disorders (16.8%), psychomotor slowing (16.8%), nystagmus (15.0%), paresthesia (15.0%), nervousness (15.9%), difficulty with concentration/attention (8.0%), confusion (9.7%), depression (8.0%), anorexia (5.3%), language problems (6.2%) and mood problems (3.5%). In an audit of 1446 adults and 303 children, there appeared to be a similar pattern of adverse events.

^{**} The long-term effects of weight loss in pediatric patients are not known.

^{††} Limited use benefit: Ontario, Nova Scotia, New Brunswick, PEI. Full benefit: Quebec, Saskatchewan, British Columbia, Alberta, Manitoba.

Please refer to the TOPAMAX Prescribing Information for complete prescribing details.

REFERENCES: 1. TOPAMAX* topiramate Tablets and Sprinkle Capsules Product Monograph, May 11, 1999. 2. Kamin M, Kraut L, Olson W. Dose optimization of topiramate as add-on therapy in adults with treatment-resistant partial-onset seizures *Neurology* 1999;52 (Suppl 2):A525-526. 3. Glauser TA, Elterman R, Wyllie E et al. Open label topiramate in paediatric partial epilepsy *Epilepsia* 1997;38 (Suppl 3):94. 4. Rosenfeld WE et al. Topiramate and concomitant weight loss. *Epilepsia* 1997;38 (Suppl 8):98.



AS IN
MS,
SOME
THINGS
ARE NOT
ALWAYS
OBVIOUS.

*Danger can lurk behind
the face of an apparently
healthy MS patient.*

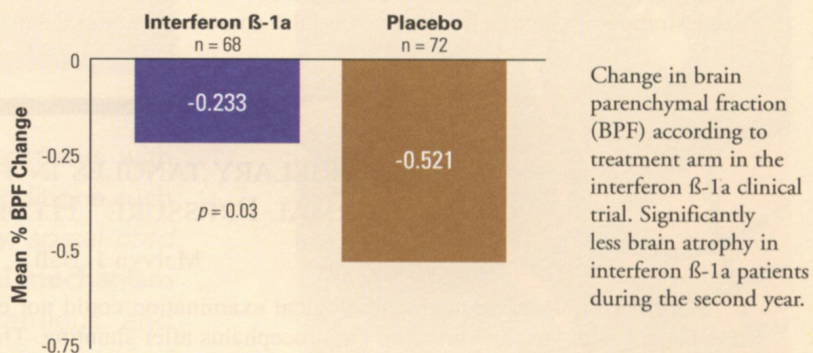
Progressive brain atrophy begins early in the course of MS and is likely irreversible.¹ Cognitive disturbances begin early in the MS process, but are often subtle and easily overlooked by patient and clinician alike.²⁻⁴

*AVONEX[®] has shown a 55% reduction
in brain atrophy progression.⁵*

The use of AVONEX[®] can help patients with relapsing forms of MS maintain both physical AND mental function longer. In a clinical trial, patients treated with AVONEX[®] showed a 55% reduction in brain atrophy progression versus placebo, during the second year of treatment.⁵ AVONEX[®] is proven to slow the progression of physical disability - patients treated with AVONEX[®] showed a 37% reduction in the risk of disability progression and a 32% reduction in annual exacerbation rate over two years.¹⁶ AVONEX[®] also demonstrated a significant MRI effect showing an 89% reduction in gadolinium-enhanced lesions in patients with enhancement at baseline.⁰⁷

Change in Brain Parenchymal Fraction⁵

(Adapted from Rudick et al.)



Once-a-Week AVONEX[®] is generally well tolerated.⁶

The once-a-week intramuscular dosing regimen with AVONEX[®], means few opportunities for injection-related side effects to disrupt patient's lifestyle.⁶ The most common side effects associated with treatment are flu-like symptoms and usually resolve within 24 hours after injection.^{6,8} Incidence of side effects decrease over time with continued treatment for most people.⁸ Please see product monograph for important patient selection and monitoring information.

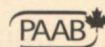
* It remains to be determined whether brain atrophy during the relapsing-remitting stage of MS will predict long-term disability progression better than clinical features in the majority of patients. Additional prospective studies are needed to determine the biologic factors associated with atrophy progression, the clinical significance of BPF change during the relapsing-remitting disease stage, and the impact and time course of therapeutic intervention.

† Kaplan-Meier estimate of percentage progressing at two years for placebo patients: 34.9% (n=143); AVONEX[®]-treated patients: 21.9% (n=158); (p=0.02). Placebo annual exacerbation rate: 0.90 (n=87); AVONEX[®] annual exacerbation rate: 0.61 (n=85); (p=0.002).

‡ The exact relationship between MRI findings and clinical status is unknown (n=44). AVONEX[®] is indicated for the treatment of relapsing forms of MS.

ONCE-A-WEEK
AVONEX[®]
(Interferon beta-1a)
IM Injection

Helping people with relapsing forms of MS
get on with their lives.



25 Years Ago in the Canadian Journal of Neurological Sciences

THE POSSIBLE LOCAL SYNTHESIS OF ANTIBODIES TO HERPES SIMPLEX VIRUS IN NORMAL CEREBROSPINAL FLUID

Anthony Science Russell

SUMMARY: We have used the technique of antibody mediated cell dependent immune lysis to examine paired samples of serum and CSF for antibody to herpes simplex virus. The 40 patients studied had no inflammatory disease of the nervous system, yet 20 of the CSF specimens did have antiviral antibody. This is an extremely sensitive technique for the detection of at least one type of antiviral antibody and “*in vitro*” is a very effective way of killing virus infected cells. There is no correlation between the level of antiviral antibody in the CSF with total protein content, but the high CSF:serum antibody ratio in some subjects who are particularly susceptible to recurrent herpes infection raises the possibility that local stimulation and production of this antibody may occur.

Can. J. Neurol. Sci. 1976;4:219

A THEORY OF THE MECHANISM OF CEREBRAL VASOSPASM AND ITS REVERSAL, THE ROLE OF CALCIUM AND CYCLIC AMP

Eric W. Peterson and Richard Leblanc

SUMMARY: It is proposed that the basic mechanism of vasospasm which sometimes follows subarachnoid hemorrhage is dependent on increased free intracellular calcium ion produced by spasmogens from closely applied extravasated blood. Relaxation of this spasm occurs when the intracellular cyclic AMP levels are raised, resulting in sequestration of calcium ion by the vascular smooth muscle cell sarcoplasmic reticulum.

Can. J. Neurol. Sci. 1976;4:223

NEUROFIBRILLARY TANGLES IN THE DEMENTIA OF “NORMAL PRESSURE” HYDROCEPHALUS

Melvyn J. Ball

SUMMARY: Routine neuropathological examination could not explain the dramatic improvement exhibited by one patient with “normal pressure” hydrocephalus after shunting. The improved patient contrasted remarkably with the unchanged condition of four others also shunted successfully. The five brains were analyzed by quantitative morphometry to determine the degree of neurofibrillary tangle formation in mesial temporal neurons. The density of tangle-bearing nerve cells in the four unimproved cases was markedly greater than in age-matched control brains from nineteen normal subjects, and fell in the same range as that of eight demented with neuropathologically confirmed Alzheimer’s disease. The density of the one who recovered was within normal limits.

The duration of dementia before shunting, and the total duration of dementia in these five patients rank in the same order as their degree of neurofibrillary formation. Furthermore, a positive linear correlation exists between the Tangle Indices and the total duration of dementia. The data suggest that early diagnosis may improve the chances of reversing the dementia of normal pressure hydrocephalus before histological alterations prove too severe.

Can. J. Neurol. Sci. 1976;4:227

Continued on page A-20

Introducing *Zanaflex*[®]
A new option in the treatment of spasticity

Start from a position of strength



Zanaflex is effective first-line therapy for patients with spasticity associated with disorders and conditions such as *Multiple Sclerosis, stroke, cerebral palsy, spinal cord injury and traumatic brain injury*.^{1,2,3} The **dual mechanism of action**, targeting both the locus ceruleus and polysynaptic pathways, reduces hyperactivity of spinal motor neurons.^{2,4}

Reduces muscle tone. Preserves muscle strength.¹



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Mississauga, Ontario L4V 1P1

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In multiple-dose, placebo-controlled studies, the most frequently reported adverse events included dry mouth (49%), sedation/somnolence (48%), asthenia (weakness, fatigue and/or tiredness) (41%) and dizziness (16%).⁴ The most common adverse events leading to discontinuation of therapy were asthenia (3%), somnolence (3%) and dry mouth (3%).⁵ Sedation may be additive when Zanaflex is taken in conjunction with drugs or substances that act as CNS depressants. Caution is advised when treatment is used in patients who have a history of orthostatic hypotension or are receiving concurrent antihypertensive therapy. Monitoring of aminotransferase levels is recommended during the first six months of treatment, and periodically thereafter, based on clinical status.

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call 1-800-563-7546.



Relief. Strength. Flexibility.

Nouveau dans le syndr



Lamotrigine, gabapentine, vigabatrine et topiramate (à distinguer des antiépileptiques standards).

†À l'exception des absences épileptiques atypiques.

‡Signification statistique non indiquée.

§Dans de rares cas, des éruptions cutanées graves, y compris le syndrome de Stevens-Johnson et l'épidermolyse nécrosante suraiguë (syndrome de Lyell), ont été signalées. Bien que la plupart des patients se soient rétablis après le retrait du médicament, certains patients ont éprouvé des séquelles irréversibles et il y a eu de rares cas de décès associés¹.

¶Les effets indésirables fréquemment signalés sont la pharyngite, la fièvre, les infections et les éruptions cutanées (p = non significatif).

Pour obtenir des précisions sur la posologie de LAMICTAL chez l'adulte ou chez l'enfant atteints du syndrome de Lennox-Gastaut, consulter les renseignements thérapeutiques détaillés sur ce produit. La posologie de LAMICTAL comme traitement d'appoint qui a été utilisée dans les études de Motte et al. et de Mullens et al. était de 50 à 400 mg par jour, après augmentation graduelle de la dose initiale. **NE PAS DÉPASSER la dose initiale de LAMICTAL ni l'augmentation posologique graduelle qui sont recommandées. Un ajustement plus rapide de la dose initiale a été associé à une fréquence accrue de réactions dermatologiques graves.

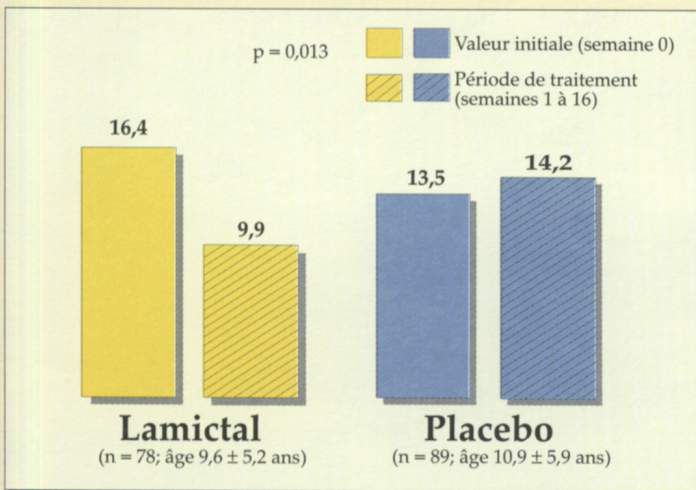
lamotrigine **Lamictal**[®]

LAMICTAL est le premier et le seul parmi les nouveaux antiépileptiques* qui soit indiqué comme traitement d'appoint chez les enfants et les adultes atteints du syndrome de Lennox-Gastaut (SLG)¹. LAMICTAL est également le premier et le seul parmi les antiépileptiques récents* qui soit indiqué comme monothérapie après polythérapie chez l'adulte.

Une supériorité significative pour maîtriser les divers types de crises liées au syndrome de Lennox-Gastaut[†]

- L'adjonction de LAMICTAL réduit, de façon significative, le nombre de crises majeures, les effondrements épileptiques et les crises tonico-cloniques chez les patients atteints de SLG¹.

NOMBRE MÉDIAN
DES CRISES MAJEURES/SEMAINE



Essai à double insu, à répartition aléatoire et à contrôle placebo chez des patients de 3 à 25 ans

Maintien d'un faible profil d'effets indésirables touchant le SNC chez les patients de 3 à 25 ans atteints du syndrome de Lennox-Gastaut

- Faible taux d'abandons comparativement au placebo^{1,2} : 3,8 % pour le groupe LAMICTAL (principalement reliés aux éruptions cutanées[§]) contre 7,8 % pour le groupe placebo (principalement reliés à une détérioration de la maîtrise des crises).
- Aucune différence significative dans la fréquence des effets indésirables entre LAMICTAL et le placebo, sauf pour le rhume ou des maladies virales (LAMICTAL, 5 % contre placebo, 0 %; p = 0,05)¹¹.

Amélioration de la fonction neurologique et des facultés cognitives^{2,3}

- Une plus forte proportion de patients (de 3 à 25 ans) atteints de SLG, traités à l'aide de LAMICTAL comme traitement d'appoint (n = 79) c. un placebo d'appoint (n = 90), ont connu une **amélioration cliniquement significative des symptômes neurologiques** durant la période de traitement de 16 semaines : comportement (30,4 % c. 14,4 %), parole (11,4 % c. 2,2 %) et communication non verbale (11,4 % c. 7,8 %)^{†3}.

LAMICTAL offre une plus grande maîtrise des divers types de crises liées au SLG, avec faible profil d'effets indésirables touchant le SNC. Vous pouvez aussi améliorer la fonction neurologique et les facultés cognitives de vos patients^{2,3}. Ajoutez LAMICTAL** dès que l'on soupçonne un SLG⁴.

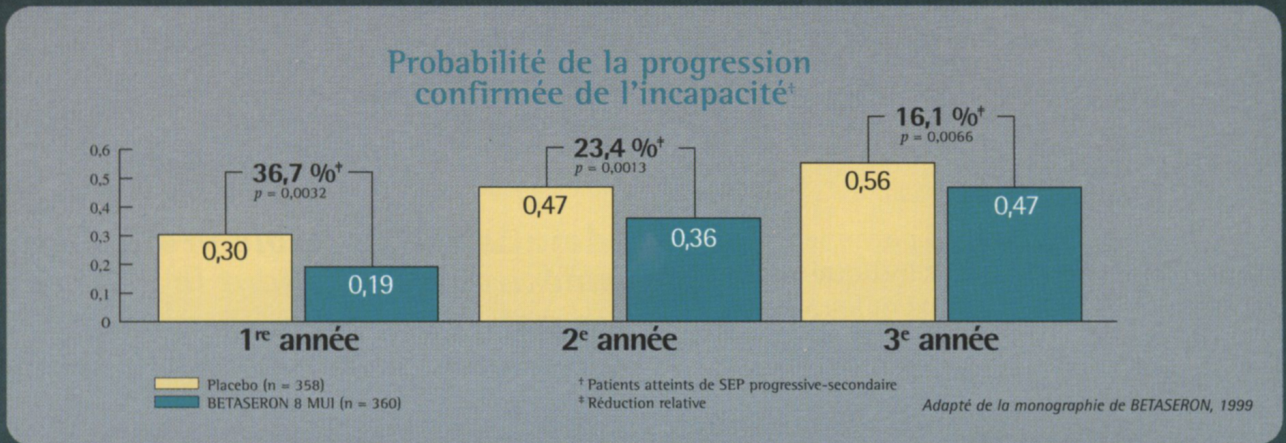
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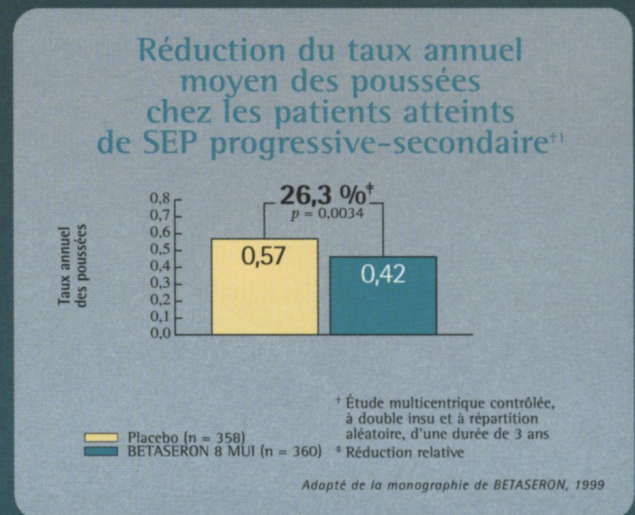
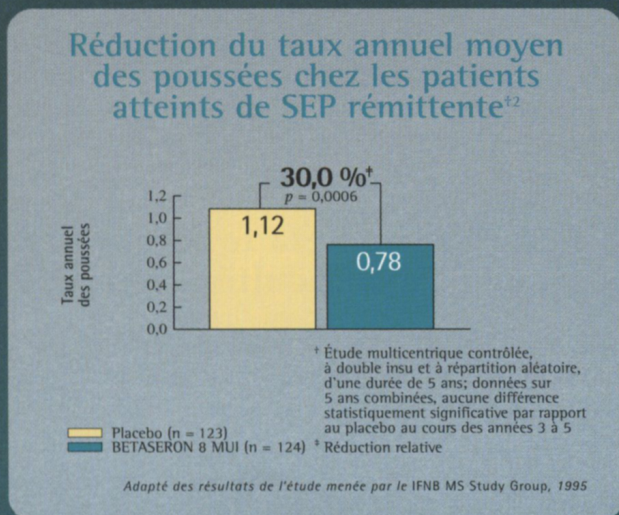
lamotrigine
Lamictal[®]
L'avenir en tête



BETASERON retarde la progression de l'incapacité*¹



BETASERON réduit le taux de poussées dans la SEP rémittente² et dans la SEP progressive-secondaire¹



Effets indésirables pouvant être pris en charge¹

Chez les patients atteints de SEP progressive-secondaire, les effets indésirables les plus fréquents de BETASERON sont : syndrome pseudo-grippal (61 %), fièvre (40 %), frissons (23 %), inflammation au point d'injection (48 %), réactions au point d'injection (46 %), myalgie (23 %), hypertension (41 %) et éruption cutanée (20 %)¹.

Les symptômes pseudo-grippaux et les réactions au point d'injection peuvent être pris en charge et diminuent de façon marquée avec le temps¹.

* Il a été démontré que BETASERON retarde la progression de l'incapacité chez les patients atteints de SEP progressive-secondaire¹.

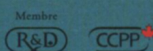
L'efficacité et l'innocuité de BETASERON dans la SEP progressive-primaire n'ont pas été évaluées.

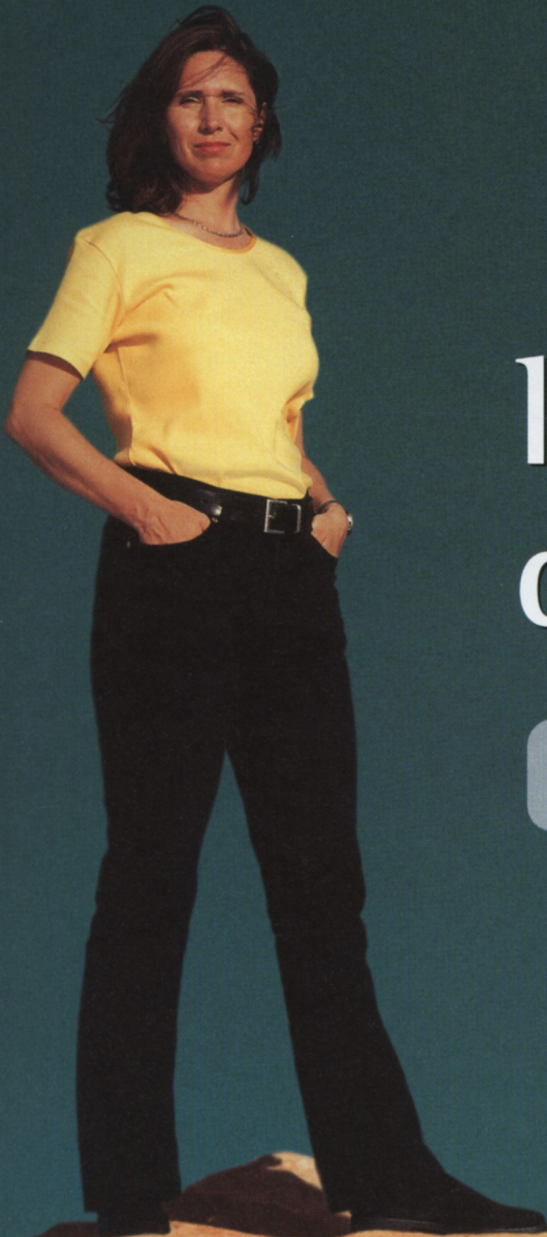
On ne dispose pas de données probantes sur l'efficacité du traitement dans la SEP rémittente au-delà de deux ans,

ni de données sur l'efficacité et l'innocuité du traitement dans la SEP progressive-secondaire au-delà de trois ans.

VEUILLEZ CONSULTER LA MONOGRAPHIE DE PRODUIT POUR OBTENIR LA LISTE COMPLÈTE DES MISES EN GARDE ET DES PRÉCAUTIONS.

MONOGRAPHIE DE PRODUIT OFFERTE SUR DEMANDE AUX PROFESSIONNELS DE LA SANTÉ.





Retarde la progression de l'incapacité*

Indiqué dans la SEP rémittente
et la SEP progressive-secondaire

Dans la SEP rémittente et la SEP progressive-secondaire



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INTERFÉRON BÊTA-1b

Dès le tout début

25 Years Ago in the Canadian Journal of Neurological Sciences

SOME NEUROPHYSIOLOGICAL EFFECTS OF CEREBELLAR STIMULATION IN MAN

Adrian R.M. Upton and Irving S. Cooper

SUMMARY: This paper presents the results of neurophysiological studies of the effects of cerebellar stimulation on H reflexes, late reflexes, blind reflexes, evoked potentials and EEG patterns in 18 human subjects (male 13, female 5, age 25.8 ± 10.0 , epileptic 9, cerebral palsy 9).

In addition to the effects of cerebellar stimulation on the H reflex studies on soleus we assessed V_1 and V_2 "late" responses (Upton et al, 1971), cortical somatosensory evoked potentials (SSEP) after median nerve stimulation, and visual evoked response (VER) after flash stimulation. Experiments were extended to assess recovery curves of all the potentials and we examined the effects of changes on the rate or voltage of cerebellar stimulation.

Cerebellar stimulation was inhibitory to all the responses except the visual evoked potentials. Serial studies in five patients produced consistent results. Preoperative and postoperative results were compared in two patients with no significant difference in the results in the absence of cerebellar stimulation.

Ipsilateral cerebellar stimulation (CS) had the greatest inhibitory effects on H, V_1 and V_2 responses in the arm and leg, whereas contralateral CS produced the greatest effects on cortical SSEPs. There was a greater bilateral effect on SSEPs and reflex responses after right CS than left CS and this may be the first indication of "dominance" in the cerebellar hemispheres. Cerebellar stimulation in patients on diphenylhydantoin produced minimal effects on SSEPs and this observation has led to further studies in patients taking diphenylhydantoin.

Recovery of amplitude of the reflex and cortical responses took eight to 30 minutes after one minute of cerebellar stimulation. Serial CS of one minute on and one minute off produced increasing inhibition of SSEPs and reflexes for up to five stimulations. Recovery after cessation of cerebellar stimulation was associated with rebound excitation in six patients, the rebound being noted in the amplitude of H reflexes and SSEPs as well as in the frequency of paroxysmal spike and wave discharges in the EEG.

The correlation of the results of such quantitative neurophysiological tests with clinical improvement may allow prediction of clinical results after cerebellar stimulation. These techniques have already been used to measure the threshold of stimulation and may allow optimal stimulation characteristics to be assessed. The prolonged neurophysiological effects of stimulation may allow the use of maximum effective intervals between optimal epochs of stimulation so that any cerebellar damage can be minimized.

Can. J. Neurol. Sci. 1976;4:237

THE REACTIVITY OF CANINE CEREBRAL ARTERIES TO O_2 AND CO_2 IN VITRO

P. Steinbok, M.J. Kendall, R.J. Clarke and S.J. Peerless

SUMMARY: The responses of canine middle cerebral arteries to change in pCO_2 and pO_2 were tested *in vitro*. It was found that there was no response to changes in pCO_2 from 38.1 mmHg to 26.6 mmHg, but there was some constriction of vessels with lowering of the pCO_2 below 26.6 mmHg and there was minimal dilatation of the vessels when the pCO_2 was increased from 38.1 mmHg to 87.2 mmHg. There was no response to changes in pO_2 from more than 500 mmHg to 59.6 mmHg, but when pO_2 was lowered below 50 mmHg there was a sudden, massive constriction of the arteries tested. It is postulated that this constriction is due to build-up of a substance (substances) during a period of hypoxia ($pO_2 < 50$ mmHg). The significance of the results obtained are discussed.

Can. J. Neurol. Sci. 1976;4:255



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- Can be taken anytime, anywhere.^{1,2*}
- Excellent choice for patients experiencing nausea and unable to drink water.
- Dissolves on the tongue.
- Effective migraine relief[†] demonstrated as early as 30 minutes.¹
- **Orange** flavoured, orally dispersible tablets.
- Side effect profile consistent with Zomig® 2.5 mg tablet.^{2,††}


Available in packages of
2 or 6 orally dispersible
tablets 2.5 mg



* Zomig® is indicated for the acute treatment of migraine with or without aura. Zomig® is not intended for use prophylactically and is contraindicated in hemiplegic, basilar, or ophthalmoplegic migraine. Safety and efficacy have not been established for cluster headache, which is present in an older, predominantly male population.

†† The most common side effects reported with Zomig® compared to placebo were nausea (9% vs. 3.7%), head/face sensations (8.6% vs. 1.7%), dizziness (8.4% vs. 4%) and neck/throat/jaw sensations (7% vs. 3%).²

† Improvement in headache pain (a 1 point drop in headache intensity, 22% vs. 15%, p=0.0385). Double-blind, placebo-controlled, parallel group. Adapted from Purdy A et al.¹ n=470
Zomig® is contraindicated in patients with history, symptoms or signs of ischemic, cardiac, cerebrovascular or peripheral vascular syndromes, valvular heart disease or cardiac arrhythmias (especially tachycardias). In addition, patients with other significant underlying cardiovascular disease, cerebrovascular syndromes or peripheral vascular disease should not receive Zomig®. Zomig® is also contraindicated in patients with uncontrolled or severe hypertension.
Zomig® should not be used within 24 hours of treatment with another 5-HT₁ agonist, or an ergotamine-containing or ergot-type medication like dihydroergotamine or methysergide.
Concurrent administration of MAO inhibitors or use of zolmitriptan within 2 weeks of discontinuation of MAO inhibitor therapy is contraindicated.

AstraZeneca 

 **Zomig Rapimelt™**
zolmitriptan orally dispersible tablets 2.5 mg

Convenient migraine relief

Member
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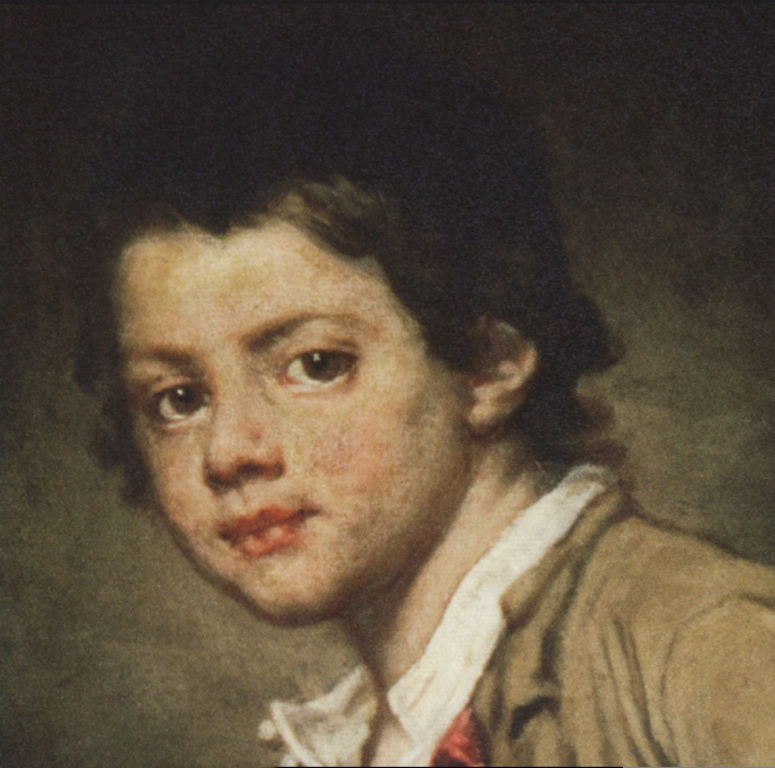


Vincent Van Gogh



Jeanne d'Arc

**AUPARAVANT, LES PERSONNES ÉPILEPTIQUES DEVAIENT
SE MONTRER EXCEPTIONNELLES POUR RÉUSSIR.**



EFFICACE CONTRE UN GRAND NOMBRE DE TYPES DE CRISES.

- TOPAMAX est efficace contre les crises partielles initiales, les crises tonico-cloniques primaires généralisées et les crises associées au syndrome de Lennox-Gastaut¹
- Des résultats souhaitables avec absence totale de crises chez 19 % des adultes¹ et 22 % des enfants¹ atteints de crises partielles initiales^{2,3}

AUCUN SIGNE D'EFFETS SECONDAIRES CAPABLES DE MENACER LE PRONOSTIC VITAL.

- Comme pour la plupart des antiépileptiques, les effets secondaires le plus fréquemment signalés relèvent du SNC et sont généralement légers à modérés et de nature passagère⁵¹

IL EST INDISPENSABLE DE CONSULTER LE MÉDECIN

SINCE 1997, COPAXONE® HAS BEEN AVAILABLE TO HELP MEET YOUR NEEDS AND THOSE OF YOUR RRMS PATIENTS.

For the reduction of relapse frequency in ambulatory patients with relapsing-remitting multiple sclerosis...



COPAXONE® is an excellent choice for early treatment.

COPAXONE® has a side effect profile that compares to placebo and is an excellent choice to start with.

In clinical trials, only 8% of 844 patients discontinued treatment due to an adverse event.¹ The most commonly observed adverse events associated with the use of COPAXONE® in controlled clinical trials which occurred at a higher frequency than placebo were¹:

Adverse Event	Non-interferon COPAXONE® [†]	Placebo
Injection Site Reactions [†]	2.4% - 66.4%	0.0% - 36.5%
Asthenia	64.8%	61.9%
Hypertonia	35.2%	29.4%
Vasodilatation	27.2%	11.1%
Back Pain	26.4%	22.2%
Chest Pain	26.4%	10.3%
Arthralgia	24.8%	17.5%
Nausea	23.2%	17.5%
Pain (Neck)	12.8%	7.1%
Infection (Vaginal Moniliasis)	12.8%	7.1%
Agitation (Anxiety)	5.6%	3.2%

[†] Depending on reaction.



COPAXONE® is an excellent choice for the long-term (2 years), too.

COPAXONE® is supported by long-term evidence of up to 2 years and efficacy that's been demonstrated in 6 clinical studies.²⁻⁷ A correlation between a reduction in attack frequency and a decreased risk of future disability remains to be established. The safety and efficacy of COPAXONE® beyond two years have not been adequately studied in placebo-controlled trials.

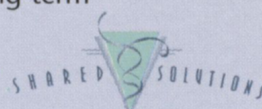
COPAXONE® is an antigenic substance and thus, it is possible detrimental host responses can occur with its use.

Only COPAXONE® has Shared Solutions™.

Shared Solutions™ helps support patients through early treatment and in the long-term (January 1999-March 2000 data).^{††} With Shared Solutions™, 93% of COPAXONE® patients stayed on therapy.⁸

^{††}n=1377

'COPAXONE' +
(glatiramer acetate for injection)



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COPAXONE®
(glatiramer acetate for injection)

EFFICACY BACKED BY EVIDENCE

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Product Monograph available on request.



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- Canadian Neurosurgical Society
- Canadian Society of Clinical Neurophysiologists
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In epilepsy

When the storm strikes, consider...

Neurontin: Therapeutically effective, user friendly†

Uncomplicated pharmacokinetics profile^{†,2}

"...[Neurontin] is remarkably user friendly in that it is not metabolized by the liver, is not protein bound, is excreted unchanged in the urine... has no significant drug interactions."²

Generally well-tolerated^{§1,3}

• Safety and tolerability of gabapentin were assessed as excellent or good for 78.5% of patients receiving gabapentin as adjunctive therapy (n=281)^{*3}

An excellent drug interaction profile^{1,4}

- No cytochrome P450 drug interactions reported¹
- No clinically significant interactions with other AEDs or other frequently used concomitant medications^{1,4}

Sample of commonly used medications	Interactions with Neurontin ^{1,4}
Ibuprofen	No interaction noted
Morphine	
Carbamazepine	
Amitriptyline	
Lovastatin	
Antacids	Some ^{††}

Dose responsive efficacy^{‡5}

• Patients receiving increased doses of up to 3,600 mg/day reported greater benefits (n=1,055)⁵



Life is our life's work

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Please refer to full prescribing information.

† Indicated for use in adjunctive epilepsy management in patients not satisfactorily controlled by conventional therapy.

‡ Clinical significance unknown.

§ The most commonly observed adverse events not seen at an equivalent frequency in placebo-treated patients, were somnolence, dizziness, ataxia, fatigue, nystagmus and tremor.

* 16-week, open-label, multi-centre assessment of the efficacy, safety and tolerability of gabapentin (900-3600 mg/day) as adjunctive therapy in patients with inadequately controlled partial seizures.^{3,5}

†† Data from clinical trials suggest that doses higher than 1200 mg/day may have increased efficacy in some patients, up to a maximum daily recommended dose of 2400 mg; however, higher doses may also increase the incidence of adverse events. The usual effective maintenance dose is 900 to 1200 mg/day.

†† Co-administration not recommended with aluminum and magnesium based antacids.

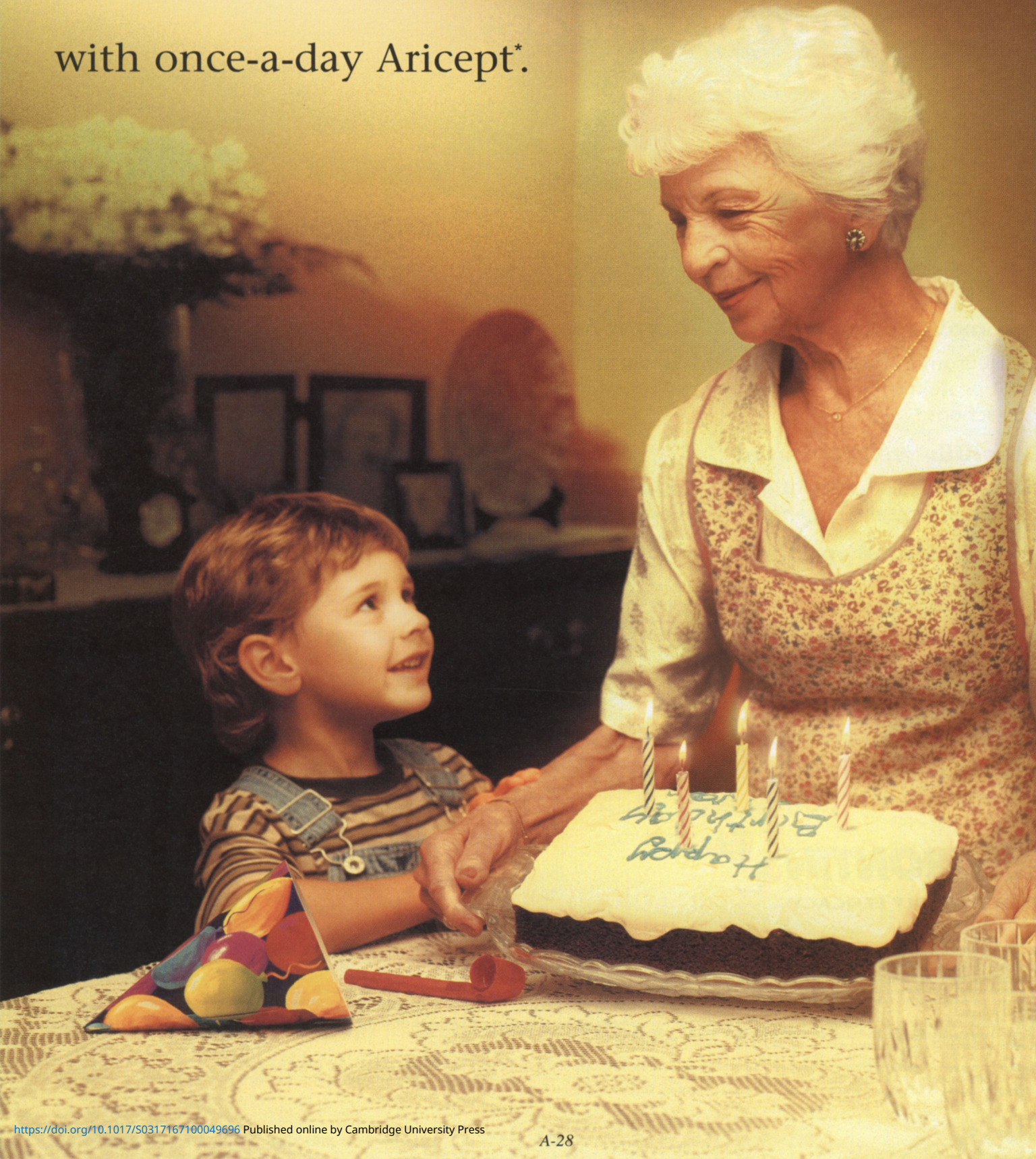
Reference: 1. Neurontin Product Monograph, July 2000. 2. Sandler M. New Options in epilepsy. *Patient Care Canada* July 1995; vol 6(6):49-55. 3. McLean MJ et al. Safety and Tolerability of Gabapentin as Adjunctive Therapy in a Large, Multicentre Study. *Epilepsia* 1999;40:965-972. 4. Compendium of Pharmaceuticals and Specialties, Thirty-fourth edition, 1999. 5. Morrell MJ. Dosing to Efficacy and Perspectives on Seizure Control: Epilepsy: STEPS Trial. *Epilepsia* 1999.



Member



Now we can celebrate the
long-term benefits in the treatment
of Alzheimer's disease
with once-a-day Aricept*.





Celebrate another birthday, another holiday, another family gathering. Because Aricept[®] has been shown to result in improvement or stabilization in 80% of Alzheimer's disease patients over six months of treatment^{1‡} and our new long-term data is even more cause for making Aricept[®] your standard of care.²

After one year, placebo-controlled studies demonstrated that Aricept[®]-treated patients showed significantly less decline in their cognition, global functioning and Activities of Daily Living.^{3,4§†}

After almost 2 years, Aricept[®]-treated patients showed significantly less decline in their cognition and global functioning in comparison to data expected from untreated patients.^{5††}

After 3 years, Aricept[®]-treated patients continued to show treatment benefits on cognition and global functioning compared to data expected from untreated patients.^{6‡‡}

Aricept[®] has demonstrated long-term safety and tolerability profiles.³⁻⁶ With appropriate dose escalation, 10 mg/day dose, 5 mg/day dose and placebo were shown to have comparable adverse events.^{1†}

With Aricept[®], patients may now be able to maintain their autonomy—for a longer time. Now that's cause for celebration.

Aricept[®] does not change the underlying course of the disease. Aricept[®] is indicated for the symptomatic treatment of patients with mild-to-moderate dementia of the Alzheimer's type.

† Most common adverse clinical events with Aricept[®]: diarrhea, nausea, insomnia, fatigue, vomiting, muscle cramps and anorexia. These events are usually mild and transient, resolving with continued Aricept[®] treatment without need for dose modification.

‡ In a 24-week, double-blind, placebo-controlled study, 473 mild-to-moderate AD patients were randomized to receive Aricept[®] 5 mg/day, 10 mg/day or placebo. The mean difference for Aricept[®]-treated patients (10 mg/day) vs. placebo was -2.87 ± 0.63 ($p < 0.0001$) units in ADAS-cog, 0.47 ± 0.11 ($p < 0.0001$) units in CIBIC-plus, and 0.59 ± 0.17 ($p = 0.0007$) units in CDR-SB.

§ In a 52-week, multicentre, double-blind, placebo-controlled study, 286 mild-to-moderate AD patients were randomized to receive Aricept[®] 5 mg/day for 28 days, followed by 10 mg/day, as per clinician's judgement, or placebo. At study endpoint, significant treatment differences were observed in MMSE in Aricept[®]-treated patients with mild AD (1.50; $p = 0.049$) and moderate AD (2.11; $p = 0.002$).

¶ In a 54-week, multicentre, double-blind, placebo-controlled study, 431 mild-to-moderate AD patients were randomized to receive Aricept[®] 5 mg/day for 28 days, followed by 10 mg/day, or placebo. At study endpoint, significant differences were observed in favour of Aricept[®] in IADL and ADL ($p = 0.001$ and 0.007), and MMSE (1.21; $p = 0.0005$). CDR-SB was also improved.

†† In an interim analysis (at 98 weeks of treatment) of a 192-week, multicentre, non-randomized, open-label extension study in which 133 mild-to-moderate AD patients continued to receive Aricept[®] (up to 10 mg/day) after a 14-week, double-blind, placebo-controlled study. Differences with placebo were observed in cognitive and global functioning as measured by the ADAS-cog and CDR-SB.

‡‡ In a 162-week, multicentre, open-label extension study, 579 patients who had previously completed a randomized, double-blind, placebo-controlled study ($n = 818$) with Aricept[®] were treated with Aricept[®] 5 mg which could be increased to 10 mg between weeks 6 and 24, as per clinician's judgement. At study endpoint, ADAS-cog declined 15.57 points (95% CI, 12, 19.2) vs. the estimated decline of 6-12 points per year in untreated patients.

Product Monograph available upon request.

Now on several provincial formularies.^{§§}

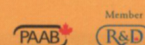


Once-a-day
Aricept[®]
donepezil HCl 5 & 10 mg tablets

Hope for a brighter tomorrow

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§§ In Saskatchewan, Quebec, Alberta, Manitoba and Ontario. Please see individual formularies for special-, exceptional-, and limited-use drug status. For more information on coverage criteria, please call 1-800-510-6141.



The Canadian Congress of Neurological Sciences is a non-profit organization dedicated to the advancement of knowledge, patient care, and collegiality among health care professionals and research scientists working in all branches of neurological sciences.

The Canadian Congress of Neurological Sciences (CCNS) is an affiliation of national societies for neurology, neurosurgery, and related disciplines which share a common interest in the functions and disorders of the human nervous system and which work together to achieve the following goals:

- To improve the well being of persons suffering from disorders of the nervous system.
- To provide a national forum for communication of information regarding disorders of the nervous system.
- To provide educational programs to meet the continuing professional development needs of the members of the constituent societies.
- To encourage fundamental and applied research aimed at advancing knowledge related to the functions of the nervous system and its disorders.
- To work with other organizations to promote increased public awareness and understanding of neurologic disorders.

CONSTITUENT SOCIETIES

The Canadian Congress of Neurological Sciences is comprised of four societies:

- Canadian Neurological Society
- Canadian Neurosurgical Society
- Canadian Society of Clinical Neurophysiologists
- Canadian Association of Child Neurologists

For further information contact: The Canadian Congress of Neurological Sciences, or see the web site www.ccns.org

ACTIVITIES

The Canadian Congress of Neurological Sciences has its office in Calgary. The CCNS acts as a secretariat to the societies and undertakes many other activities on behalf of the members.

- CME Programs
- National and international event planning
- Professional Development projects
- Fellowship and Research Proposals
- Needs Assessment
- Exam Management
- Practice Guidelines Development
- Manpower Surveys
- Newsletter and Communications
- MOCOMP Assessment
- Promotion

MEMBERSHIP BENEFITS

- Annual Membership Directory
- The Canadian Journal of Neurological Sciences
- Newsletters and Communications
- Manpower information
- Education Opportunities
- Professional Development Initiatives
- Information and Services through the Secretariat
- Advocacy

FURTHER INFORMATION

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Rebif®. Dose-dependent Efficacy in Relapsing MS^{1*}

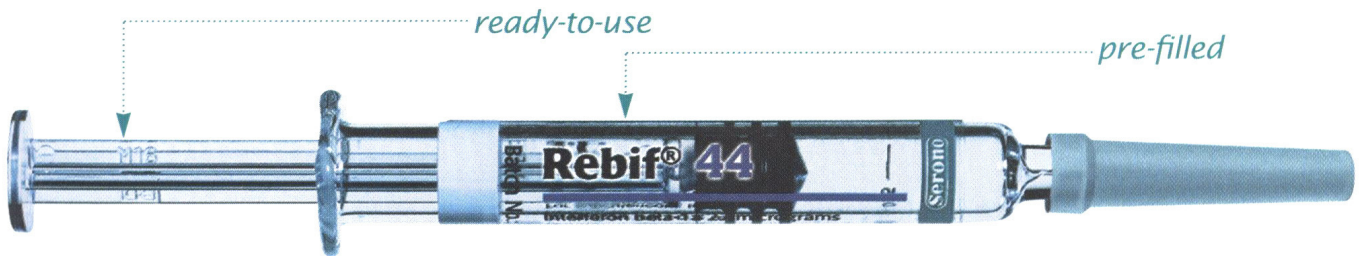


Not
Yet



Rebif®

Interferon beta-1a



The most common reported adverse events are injection-site reactions and flu-like symptoms – e.g., asthenia, pyrexia, chills, arthralgia, myalgia, and headache. These tend to decrease in frequency and severity with continued treatment. Please see product monograph for full prescribing information. Evidence of safety and efficacy derived from 2-year data only.

* Rebif® is indicated for the treatment of relapsing-remitting multiple sclerosis in patients with an EDSS between 0 and 5.0, to reduce the number and severity of clinical exacerbations, slow the progression of physical disability, reduce the requirement for steroids, and reduce the number of hospitalizations for treatment of multiple sclerosis.

REFERENCES:

¹ PRISMS (Prevention of Relapses and Disability by Interferon β -1a Subcutaneously in Multiple Sclerosis) Study Group (1998). Randomised double-blind placebo-controlled study of interferon β -1a in relapsing/remitting multiple sclerosis. *Lancet* 352:1498-1504



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